Venipuncture, younger than age 3 years, necessitating the skill of a physician or other qualified health care professional, not to be used for routine venipuncture; femoral or jugular vein

scalp vein

other vein

Venipuncture, age 3 years or older, necessitating the skill of a physician or other qualified health care professional (separate procedure), for diagnostic or therapeutic purposes (not to be used for routine venipuncture)

Explanation
In 36400, a needle is inserted through the skin to puncture the femoral or jugular vein of a child younger than age 3. The needle is inserted into the vein and used for the withdrawal of blood for diagnostic study or for the therapeutic infusion of intravenous medication. A soft flexible catheter may be placed for prolonged therapy. When the scalp vein is punctured, see 36405. For a vein other than the femoral, jugular, sagittal sinus, or scalp vein, report 36406. In 36410, a needle is inserted through the skin to puncture a vein of a person 3 years of age or older. The needle is inserted into the vein and used for the withdrawal of blood for diagnostic study or for the therapeutic infusion of intravenous medication. A soft flexible catheter may be placed for prolonged therapy. Once the procedure is complete, the needle or catheter is withdrawn and pressure is applied over the puncture site to control bleeding. These codes are used for venipuncture necessitating the skill of a physician or other qualified health care provider, not when routine venipuncture is performed.

Coding Tips
For collection of venous blood by venipuncture, see 36415. Collection of blood specimen by finer, heel, or ear stick is reported using 36416. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
cannula. Tube inserted into a blood vessel, duct, or body cavity to facilitate passage.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
**36415-36416**

36415  Collection of venous blood by venipuncture
36416  Collection of capillary blood specimen (eg, finger, heel, ear stick)

**Explanation**

A needle is inserted into the skin over a vein to puncture the blood vessel and withdraw blood for venous collection in 36415. In 36416, a prick is made into the finger, heel, or ear and capillary blood that pools at the puncture site is collected in a pipette. In either case, the blood is used for diagnostic study and no catheter is placed.

**Coding Tips**

For a child older than 3 or an adult, see code 36410. For routine venipuncture for collection of specimens, see code 36415. For scalp venipuncture in a child 3 years or younger, see code 36405. For venipuncture, without cutdown, younger than 3, see codes 36400-36406. This procedure does not include laboratory analysis. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. The frequency limit for reporting code 36415 is once per day. Code 36415 is paid under the laboratory fee schedule. No deductible or coinsurance apply. The collection of capillary blood specimen, CPT code 36416, is not reportable to Medicare. Code 36415 is not subject to Medicare deductible or coinsurance since it is paid on the laboratory fee schedule.

**Terms To Know**

- **capillary**: Tiny, minute blood vessel that connects the arterioles (smallest arteries) and the venules (smallest veins) and acts as a semipermeable membrane between the blood and the tissue fluid.
- **pipette**: Small, narrow glass or plastic tube with both ends open used for measuring or transferring liquids.
- **specimen**: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- **venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**IOM References**

100-4,16,60.1.4

**CCI Version 20.0**

No CCI Edits apply to this code.

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36420-36425

36420  Venipuncture, cutdown; younger than age 1 year
36425  age 1 or over

Explanation
The physician makes an incision in the skin directly over the vessel and dissects the area surrounding the vein. A needle is passed into the vein for the withdrawal of blood or for the infusion of intravenous medication of a patient under 12 months of age (in 36420) or over 12 months of age (in 36425). A catheter may be left behind. Once the procedure is complete, the incision is repaired with a layered closure.

Coding Tips
Local anesthesia is included in these services. Do not append modifier 63 to code 36420 as the description or nature of the procedure includes infants up to 4 kg. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. For venipuncture on a patient younger than 3 years of age, see 36400-36406. For venipuncture requiring physician skill on a patient 3 years of age or older, see code 36410. Do not report code 36420 or 36425 if provided with critical care, see codes 99468-99480. Code 36425 should not be reported with endovenous ablation (36475-36479).

Terms To Know
critical care. Treatment of critically ill patients in a variety of medical emergencies that requires the constant attendance of the physician (e.g., cardiac arrest, shock, bleeding, respiratory failure, postoperative complications, critically ill neonate).
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-3,20.18; 100-3,110.5; 100-3,110.7

CCI Version 20.0
69990
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**36430-36440**

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<td>36430</td>
<td>Transfusion, blood or blood components</td>
</tr>
<tr>
<td>36440</td>
<td>Push transfusion, blood, 2 years or younger</td>
</tr>
</tbody>
</table>

**Explanation**
The physician transfuses blood or blood components to a patient in 36430. The physician establishes venous access with a needle and catheter and transfuses the blood products. Report 36440 when the physician performs a push transfusion on a child 2 years old and under. The physician calculates the amount of blood to be transfused and slowly injects it into the patient using a needle or existing catheter.

**Coding Tips**
Code 36430 Transfusion, blood or blood components, should be reported only once per transfusion, regardless of how many units are administered. If separate transfusion services are performed on different dates, then the code may be reported once for date of service. To report charges for transfusion services, for providers reporting under OPPS, a transfusion APC will be paid to the hospital for transfusing blood once per day, regardless of the number of units transfused. Bill transfusion services with revenue code 0391 Blood administration, and CPT codes 36430–36460. The hospital may also bill for blood typing and cross matching. The OPPS Integrated Outpatient Code Editor (IOCE) contains an edit that limits the number of units reported for 36430 to 1. A claim submitted with more than one unit of 36430 reported on the same date of service will be returned to provider unprocessed. For payment, a blood product HCPCS code is required when billing a transfusion service code. To report laboratory services associated with blood or blood component transfusions, see codes 86850-86999. To report apheresis, see codes from range 36511-36512. To report therapeutic phlebotomy, see CPT code 99195.

**Terms To Know**
- **blood bank.** Facility for collecting, processing, storing, or distributing human blood, blood components, or blood derivatives.
- **blood components.** Preparations separated from a single donation of whole blood including but not limited to plasma, fresh frozen plasma, red blood cells, platelets, and cryoprecipitate.
- **plasma.** Liquid portion of the blood, lymph, or milk.
- **transfusion.** Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**IOM References**
100-1,3,20.5; 100-1,3,20.5.2; 100-2,1,10; 100-3,110.5; 100-3,110.7; 100-3,110.8; 100-3,110.16; 100-4,3,40.2.2

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ICD-9-CM Diagnostic Codes

**Thrombotic microangiopathy**

**Myasthenia gravis**

**Goodpasture’s syndrome**

**Monoclonal paraproteinemia**

**Thrombotic microangiopathy**

**Coding Tips**

Report code 36511 for white blood cell isolation and removal (leukapheresis or lymphocytapheresis), code 36512 for red blood cell removal, and code 36513 for removal of platelets. For therapeutic apheresis for plasmapheresis, see code 36514. For therapeutic apheresis with extracorporeal immunoadsorption and plasma reinfusion, see code 36515. For therapeutic apheresis with extracorporeal selective adsorption or selective filtration and plasma reinfusion, see code 36516.

Apheresis is covered only when performed in a hospital setting (either inpatient or outpatient) or in a nonhospital setting (e.g., a physician-directed clinic). Nonphysician services furnished to hospital patients are covered, and paid for as hospital services. When covered services are provided to hospital patients by an outside provider or supplier, the hospital is responsible for paying the provider or supplier for the services. In a nonhospital setting (e.g., a physician-directed clinic) the following conditions must be met: a) the physician (or number of physicians) is present to perform medical services and to respond to medical emergencies at all times during patient care hours; b) each patient is under the care of a physician; and c) all nonphysician services are furnished under the direct, personal supervision of a physician.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<td>273.1</td>
<td>Monoclonal paraproteinemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
<td>358.01</td>
<td>Myasthenia gravis with (acute) exacerbation</td>
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<td>446.21</td>
<td>Goodpasture’s syndrome — (Use additional code to identify renal disease: 583.81)</td>
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<td>446.6</td>
<td>Thrombotic microangiopathy</td>
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**Procedure Codes**

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<tr>
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<td>36511</td>
<td>Therapeutic apheresis for white blood cells</td>
</tr>
<tr>
<td>36512</td>
<td>Therapeutic apheresis for red blood cells</td>
</tr>
<tr>
<td>36513</td>
<td>Therapeutic apheresis for platelets</td>
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</table>

**Explanation**

Therapeutic apheresis is the removal of some specific circulating blood component, cells or plasma solute, that is directly responsible for a disease process. Cells and plasma components may also be mobilized from other tissue storage during apheresis, such as from the spleen and lymph nodes, for enhanced clearance of the undesired element. The patient is prepared much the same as giving a regular blood donation. Whole blood is drawn out of one arm and into an instrument called a separator, which uses a microprocessing technique to draw the blood, anticoagulate it, and separate the component to be removed by centrifugal spinning, filtration, or column adsorption with the help of computerized calibration. The cells to be removed are collected while the remainder of the blood is recombinated and returned to the patient through a tube and needle in the other arm. Report 36511 for white blood cell isolation and removal (leukapheresis or lymphocytapheresis), 36512 for red blood cell removal, and 36513 for removal of platelets.

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3, 110.14; 100-4, 4.231.9

**CCl Version 20.0**


Also not with 36511: 36440, 36512-36516

Also not with 36512: 36440-36455, 36513-36516

Also not with 36513: 36440, 36514-36516

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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ICD-9-CM Diagnostic Codes

36514 - NCD

36514 Therapeutic apheresis; for plasma pheresis
36515 with extracorporeal immunoadsorption and plasma reinfusion
36516 with extracorporeal selective adsorption or selective filtration and plasma reinfusion

Explanation
Therapeutic apheresis is the removal of some specific circulating blood component, cells or plasma solute, that is directly responsible for a disease process. Cells and plasma components may also be mobilized from other tissue storage during apheresis, such as from the spleen and lymph nodes, for enhanced clearance of the undesired element. The patient is prepared much the same as giving a regular blood donation. Whole blood is drawn out of one arm and into an instrument called a separator, which uses a microprocessing technique to draw the blood, anticoagulate it, and separate the component to be removed by centrifugal spinning, filtration, or column adsorption with the help of computerized calibration. Plasmapheresis, reported with 36514 is the isolation of the plasma from the blood. Plasma exchange isolates, discards, and replaces the plasma with a substitute fluid, like albumin. Plasma exchange is nonspecific since the plasma is discarded on the basis that toxins and antibodies accumulate in the plasma. The best method requires treating a disorder by removing the offending abnormal plasma component selectively. Apheresis for plasma with extracorporeal immunoadsorption and reinfusion of the patient’s plasma may be done, reported with 36515. This procedure uses Protein A columns to specifically remove circulating immune complexes. Report 36516 for extracorporeal selective adsorption or selective filtration, such as dextran sulfate cellulose columns to selectively remove low-density lipoproteins, with plasma reinfusion.

Coding Tips
For therapeutic apheresis for white blood cells, see code 36511. For therapeutic apheresis for red blood cells, see 36512. For therapeutic apheresis for platelets, see code 36513. Apheresis is covered only when performed in a hospital setting (either inpatient or outpatient) or nonhospital setting (e.g., a physician-directed clinic). Nonphysician services furnished to hospital patients are covered and paid for as hospital services. When covered services are provided to hospital patients by an outside provider or supplier, the hospital is responsible for paying the provider or supplier for the services. In a nonhospital setting (e.g., a physician-directed clinic), the following conditions must be met: a) the physician (or number of physicians) is present to perform medical services and to respond to medical emergencies at all times during patient care hours; b) each patient is under the care of a physician; and c) all nonphysician services are furnished under the direct, personal supervision of a physician. When reporting the professional evaluation, modifier 26 should be appended to code 36516.

ICD-9-CM Diagnostic Codes

203.12 Plasma cell leukemia, in relapse
205.02 Acute myeloid leukemia, in relapse
205.12 Chronic myeloid leukemia, in relapse

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<th>Description</th>
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Collection of blood specimen from a completely implantable venous access device

Collection of blood specimen using established central or peripheral catheter, venous, not otherwise specified

**Explanation**
The physician obtains a blood specimen from a previously placed, completely implantable venous access device (36591) or from an established central venous or peripheral venous catheter (36592). Completely implanted devices are those that have access through a subcutaneous port (e.g., Port-A-Cath, Infusaport). An implantable access device requires a percutaneous noncoring needle to accomplish the blood draw. The skin is cleansed with alcohol or iodine solution. The needle is placed into the port. Heparin is withdrawn. A second needle is inserted and the blood specimen obtained. The port is flushed with heparin solution. A central venous catheter (CVC) is one that is inserted through the skin into central veins, such as the femoral, internal jugular, or subclavian veins. Peripheral catheters include those inserted in the arm veins (basilic or cephalic), such as a PICC line, saline lock, or heparin lock. In order to clear the catheter of any material that could contaminate the sample and affect the test results, a specific volume of infusing fluid and blood must be discarded before a blood specimen is obtained; this volume will vary depending on the type of catheter utilized. With a central venous catheter, a three-way stopcock is attached to the catheter’s hub and two syringes attached to the stopcock. Using one syringe, the catheter is flushed with normal saline. A specific amount of blood is aspirated into the same syringe used for the saline flush and discarded. The blood sample is then withdrawn using the other syringe and placed into an appropriate tube for laboratory analysis. If using a peripheral venous catheter, a specific amount of blood is also aspirated and discarded before the blood sample is drawn.

**Coding Tips**
Do not report 36591 or 36592 with any other service other than laboratory procedures. Collection of venous blood specimen by venipuncture is reported with code 36415. For collection of capillary blood specimen, see 36416. For arterial puncture, see 36600. Surgical trays, A4550, are not separately reimbursed by Medicare; however, other third-party payers may cover them. Check with the specific payer to determine coverage.

**Terms To Know**
- **artery.** Vessel through which oxygenated blood passes away from the heart to any part of the body.
- **aspirate.** To withdraw fluid or air from a body cavity by suction.
- **catheter.** Flexible tube inserted into an area of the body for introducing or withdrawing fluid.
- **peripheral.** Outside of a structure or organ.

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Port-a-cath. Brand name for an implantable system used for vascular access when the patient’s treatment plan requires repeat administration of drugs (e.g., chemotherapy), fluids, and/or nutrition. This system may also be used for repeated blood sampling. Refer to CPT codes 36560-36571 for insertion of an implantable catheter; 36575-36585 for replacement procedures; 36589-36590 for removal; and 36595-36597 for other procedures on a central venous catheter device.

subcutaneous. Below the skin.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
No CCI Edits apply to this code.
36593

36593 Declotting by thrombolytic agent of implanted vascular access device or catheter

Explanation
To remove a clot from an implanted vascular access device or catheter, the physician injects a thrombolytic agent (e.g., Streptokinase) into the catheter to dissolve the clot. The patient is observed for any abnormal signs of bleeding.

Coding Tips
When 36593 is performed with another separately identifiable procedure, the highest dollar value code is listed as the primary procedure and subsequent procedures are appended with modifier 51. Do not report code 36593 in conjunction with code 36595, 36596, or 36870. For thrombectomy of an arteriovenous fistula, see codes 36831 and 36870. Supplies used when providing this procedure may be reported with code J2995. Check with the specific payer to determine coverage.

Terms To Know
- blood clot. Semisolidified, coagulated mass of mainly platelets and fibrin in the bloodstream.
- catheter. Flexible tube inserted into an area of the body for introducing or withdrawing fluid.
- thrombolytic agent. Drugs or other substances used to dissolve blood clots in blood vessels or in tubes that have been placed into the body.

ICD-9-CM Diagnostic Codes
- 996.74 Other complications due to other vascular device, implant, and graft — (Use additional code to identify complication: 338.18-338.19, 338.28-338.29)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
- 36005, 69990, 75896, J1642

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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36600

Arterial puncture, withdrawal of blood for diagnosis

Explanation
The physician inserts a needle through the skin and punctures the artery to withdraw blood for testing. No catheter is left in the artery. Pressure is applied to the puncture site to stop the flow of blood.

Coding Tips
This code is used to report the percutaneous insertion of a needle or catheter into a radial, brachial, or femoral artery, for the purpose of obtaining a single arterial blood sample for blood gas analysis. Documentation will indicate that the needle was removed once the specimen was obtained. See codes 36620-36640 when documentation indicates that an invasive placement of an indwelling arterial catheter for direct and frequent monitoring of physiologic indexes was performed. Report code 36600 only once when multiple tests are performed on the same arterial blood draw. This procedure does not include laboratory analysis. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
arterial catheterization. Introduction of a narrow, hollow tube within an artery to allow for therapeutic or diagnostic proceedings, such as visualization inside the lumen, measurement of arterial pressures, injections, or repair.
percutaneous. Through the skin.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
36000-36005, 36120-36140, 36625, 69990, 76000-76001, 77001-77002, J0670, J2001
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Basic metabolic panel (Calcium, ionized)

**Explanation**
A basic metabolic panel with ionized calcium includes the following tests: calcium (ionized) (82330), carbon dioxide (82374), chloride (82435), creatinine (82565), glucose (82947), potassium (84132), sodium (84295), and urea nitrogen (BUN) (84520). Blood specimen is obtained by venipuncture. See the specific codes for additional information about the listed tests.

**Coding Tips**
Report organ or disease-oriented panel codes only when each panel component in the panel definition is performed. The assignment of organ or disease-oriented panel codes is optional for most non-Medicare payers. You may assign an organ or disease panel code or opt to report each individual assay code. Medicare guidelines state that if all tests of a CPT defined panel are performed, the provider may bill the panel code or the individual component test codes. The panel codes may be used when the tests are ordered as that panel or if the individual component tests of a panel are ordered separately. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met and then report the remaining tests using the appropriate individual test codes. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. An ionized calcium basic metabolic panel should not be billed in addition to a comprehensive metabolic panel (80053). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

**Terms To Know**

**CLIA.** Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**IOM References**
100-2,11,30.2.2; 100-2,15,80.1; 100-4,16,40.6.1; 100-4,16,70.8; 100-4,16,100.6

**CCI Version 20.0**
80048, 80051, 82330, 82374, 82435, 82565, 82947, 84132, 84295, 84520

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Basic metabolic panel (Calcium, total)

Explanation
A basic metabolic panel with total calcium includes the following tests: total calcium (82310), carbon dioxide (82374), chloride (82435), creatinine (82565), glucose (82947), potassium (84132), sodium (84295), and urea nitrogen (BUN) (84520). The blood specimen is obtained by venipuncture. See the specific codes for additional information about the listed tests.

Coding Tips
Report organ or disease-oriented panel codes only when each panel component in the panel definition is performed. The assignment of organ or disease-oriented panel codes is optional for most non-Medicare payers. You may assign an organ or disease panel code or opt to report each individual assay code. Medicare guidelines state that if all tests of a CPT defined panel are performed, the provider may bill the panel code or the individual component test codes. The panel codes may be used when the tests are ordered as that panel or if the individual component tests of a panel are ordered separately. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. A total calcium basic metabolic panel should not be billed in addition to a comprehensive metabolic panel (80053).

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-2,11,30.2.2; 100-4,16,70.8

CCI Version 20.0
80051, 82310, 82374, 82435, 82565, 82947, 84132, 84295, 84520

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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General health panel

Explanation
A general health panel includes the following tests: albumin (82040), total bilirubin (82247), calcium (82310), carbon dioxide (bicarbonate) (82374), chloride (82435), creatinine (82565), glucose (82947), alkaline phosphatase (84075), potassium (84132), total protein (84155), sodium (84295), alanine amino transferase (ALT) (SGPT) (84460), aspartate amino transferase (AST) (SGOT) (84450), urea nitrogen (BUN) (84520), and thyroid stimulating hormone (84443). In addition, this panel includes a hemogram with automated differential (85025 or 85027 and 85004) or hemogram (85027) with manual differential (85007 or 85009). Blood specimen is obtained by venipuncture. See specific codes for additional information about the listed tests.

Coding Tips
Report organ or disease-oriented panel codes only when each panel component in the panel definition is performed. The assignment of organ or disease oriented panel codes is optional for most non-Medicare payers. You may assign an organ or disease panel code or opt to report each individual assay code. Medicare guidelines state that if all tests of a CPT defined panel are performed, the provider may bill the panel code or the individual component test codes. The panel codes may be used when the tests are ordered as that panel or if the individual component tests of a panel are ordered separately. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

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80051
80051 Electrolyte panel

Explanation
An electrolyte panel includes the following tests: carbon dioxide (82374), chloride (82435), potassium (84132), and sodium (84295). Blood specimen is obtained by venipuncture. See specific codes for additional information about the listed tests.

Coding Tips
Organ and disease oriented panels are comprised of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived. See appendix 1 for CLIA-waived kits and test systems. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. This panel is a component of the renal function panel, CPT code 80069. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

renal. Referring to the kidney.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

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Comprehensive metabolic panel

Explanation
A comprehensive metabolic panel includes the following tests: albumin (82040), total bilirubin (82247), total calcium (82310), carbon dioxide (bicarbonate) (82374), chloride (82435), creatinine (82565), glucose (82947), alkaline phosphatase (84075), potassium (84132), total protein (84155), sodium (84295), alanine amino transferase (ALT) (SGPT) (84460), aspartate amino transferase (AST) (SGOT) (84450), and urea nitrogen (BUN) (84520). Blood specimen is obtained by venipuncture. See the specific codes for additional information about the listed tests.

Coding Tips
Do not report 80053 with 80048 or 80076. Organ and disease oriented panels are comprised of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Report the individual tests performed instead. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-4,16,40.6.1; 100-4,16,70.8; 100-4,16,100.6

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An obstetric panel includes the following tests: hepatitis B surface antigen (HBsAg) (87340), rubella antibody (86762), qualitative non-treponemal antibody syphilis test (VDRL, RPR, ART) (86592), RBC antibody screen (86850), ABO blood typing (86900), and Rh (D) blood typing (86901). In addition, this panel includes either an automated complete blood count (CBC) and automated differential white blood count (WBC) as described by 85025 or 85027 and 85004 OR automated CBC (85027) and appropriate manual differential WBC count (85007 or 85009). Blood specimen is obtained by venipuncture. See specific codes for additional information about the listed tests.

Coding Tips
Organ and disease-oriented panels are composed of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. When syphilis screening is performed using treponemal antibody methodology do not report code 80055. Report each individual test separately. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
- **antibody**: Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
No CCI Edits apply to this code.
80061 - NCD

80061  Lipid panel

Explanation
A lipid panel includes the following tests: total serum cholesterol (82465), high-density cholesterol (HDL cholesterol) by direct measurement (83718), and triglycerides (84478). Blood specimen is obtained by venipuncture. See specific codes for additional information about the listed tests.

Coding Tips
A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub.100-03, section 190.23. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests, allowing the definition of that panel to be met. Then report the remaining tests using the appropriate individual test codes. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other licensed clinical staff.

ICD-9-CM Diagnostic Codes

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<tr>
<td>250.01</td>
<td>Diabetes mellitus without mention of complication, type I (juvenile type), not stated as uncontrolled</td>
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<tr>
<td>250.02</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled</td>
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<td>250.03</td>
<td>Diabetes mellitus without mention of complication, type I (juvenile type), uncontrolled</td>
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<tr>
<td>250.40</td>
<td>Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
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<td>250.41</td>
<td>Diabetes with renal manifestations, type I (juvenile type), not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
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<td>250.70</td>
<td>Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)</td>
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<td>Diabetes with peripheral circulatory disorders, type I (juvenile type), not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)</td>
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<td>272.0</td>
<td>Pure hypercholesterolemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>272.8</td>
<td>Other disorders of lipid metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>278.01</td>
<td>Morbid obesity — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)</td>
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<td>Overweight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54) (Use additional code to identify any associated intellectual disabilities)</td>
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<td>401.9</td>
<td>Unspecified essential hypertension</td>
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<td>Malignant hypertensive heart disease without heart failure</td>
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<td>402.01</td>
<td>Malignant hypertensive heart disease with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)</td>
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<td>402.10</td>
<td>Benign hypertensive heart disease without heart failure</td>
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<td>414.05</td>
<td>Coronary atherosclerosis of unspecified type of bypass graft — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>414.06</td>
<td>Coronary atherosclerosis, of native coronary artery of transplanted heart — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>414.3</td>
<td>Coronary atherosclerosis due to lipid rich plaque — (Code first coronary atherosclerosis (414.00-414.07))</td>
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<tr>
<td>414.8</td>
<td>Other specified forms of chronic ischemic heart disease — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.23; 100-4,16,40.6.1; 100-4,16,70.8; 100-4,16,100.6

CCI Version 20.0
80500-80502, 82465, 83718, 83721, 84478

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Renal function panel

Explanation
A renal function panel includes the following tests: albumin (82040), total calcium (82310), carbon dioxide (bicarbonate) (82374), chloride (82435), creatinine (82565), glucose (82947), inorganic phosphorus (phosphate) (84100), potassium (84132), sodium (84295), and urea nitrogen (BUN) (84520).

Coding Tips
Organ and disease-oriented panels are composed of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met and then report the remaining tests using the appropriate individual test codes. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

Renal. Referring to the kidney.

Specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

Venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
252.00 Hyperparathyroidism, unspecified
252.01 Primary hyperparathyroidism
252.02 Secondary hyperparathyroidism, non-renal

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IOM References
100-4,16,40.6.1; 100-4,16,100.6

CCI Version 20.0
80047-80048, 80051, 80076, 82040, 82310, 82374, 82435, 82565, 82947, 84100, 84132, 84295, 84520

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
80074 - NCD

80074  Acute hepatitis panel

Explanation
An acute hepatitis panel includes the following tests: hepatitis A antibody (HAAb), IgM antibody (86709), hepatitis B core antibody (HbcAb), IgM antibody (86705), hepatitis B surface antigen (HbsAg) (87340), and hepatitis C antibody (86803).

Coding Tips
Organ and disease-oriented panels are composed of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.33. Note that the list of ICD-9-CM codes does not contain all diagnostic codes associated with the NCD. Please see the CD for a complete list. Venipuncture is separately reportable.

ICD-9-CM Diagnostic Codes

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<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
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<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
<td>070.32</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.33</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.41</td>
<td>Acute hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
</tr>
<tr>
<td>070.43</td>
<td>Hepatitis E with hepatic coma</td>
</tr>
</tbody>
</table>

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
80076
80076 Hepatic function panel

Explanation
A hepatic function panel includes the following tests: albumin (82040), total bilirubin (82247), direct bilirubin (82248), alkaline phosphatase (84075), protein, total (84155), alanine amino transferase (ALT) (SCPT) (84460), and aspartate amino transferase (AST) (SGOT) (84450). Blood specimen is obtained by venipuncture. See the specific codes for additional information about the listed tests.

Coding Tips
Do not report 80076 with 80053. Organ and disease-oriented panels are composed of a group of specified tests. If all of the tests of a defined panel are performed, the panel code or the individual test codes may be reported. According to CPT guidelines, do not report two or more organ or disease-oriented panels when any of the same tests are performed in each panel and the panels are performed from the same patient collection. When a group of tests overlap two or more panels, report the panel that has the greatest number of tests allowing the definition of that panel to be met, and then report the remaining tests using the appropriate individual test codes. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider by a phlebotomist or other unlicensed clinical staff.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
070.1 Viral hepatitis A without mention of hepatic coma
070.30 Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
070.31 Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
070.32 Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.33 Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta
070.51 Acute hepatitis C without mention of hepatic coma
070.52 Hepatitis delta without mention of active hepatitis B disease or hepatic coma
070.53 Hepatitis E without mention of hepatic coma
070.54 Chronic hepatitis C without mention of hepatic coma
070.59 Other specified viral hepatitis without mention of hepatic coma
070.6 Unspecified viral hepatitis with hepatic coma
070.70 Unspecified viral hepatitis C without hepatic coma
070.9 Unspecified viral hepatitis without mention of hepatic coma
155.0 Malignant neoplasm of liver, primary
155.1 Malignant neoplasm of intrahepatic bile ducts
571.0 Alcoholic fatty liver
571.1 Acute alcoholic hepatitis
571.2 Alcoholic cirrhosis of liver
571.3 Unspecified alcoholic liver damage
571.40 Unspecified chronic hepatitis
571.41 Chronic persistent hepatitis
571.49 Other chronic hepatitis
571.5 Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
571.6 Biliary cirrhosis
571.8 Other chronic nonalcoholic liver disease
571.9 Unspecified chronic liver disease without mention of alcohol
572.2 Hepatic encephalopathy
572.3 Portal hypertension — (Use additional code for any associated complications, such as: portal hypertensive gastropathy (537.89))
572.4 Hepatorenal syndrome
789.1 Hepatomegaly
V67.51 Follow-up examination following completed treatment with high-risk medications, not elsewhere classified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,40.6.1; 100-4,16,100.6

CCI Version 20.0
82040, 82247-82248, 84075, 84155, 84450, 84460
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Drug screen, qualitative; multiple drug classes chromatographic method, each procedure

Explanation
This test may be requested as a drug screen for multiple drug classes. The screening test must be performed by a chromatographic technique that has good sensitivity, although it may not be as specific as a confirmatory test. Thin-layer chromatography is a common chromatographic technique for drug screening tests. It is performed by applying a thin layer adsorbent to a rectangular plate in the stationary phase. The specimen is applied to the plate and the end of the plate is placed in a solvent. As the solvent rises along the adsorbent on the plate, the different components of the specimen are carried along at varying rates and deposited along the plate. The different components can be separately visualized and analyzed. Positive tests are always confirmed with a second method. Specimen type varies.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Use CPT code 80100 for qualitative drug screens performed by chromatography that detect multiple drug classes. Count each combination of stationary and mobile phase as one. If multiple drugs are detected using a single analysis (e.g., one stationary phase with one mobile phase) use 80100 only once. Refer to specific codes for quantitation of drugs screened. See CPT codes 82000-84999 for quantitative drug levels. To report therapeutic drug assays for quantitative drug screening, see codes 80150-80299.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
therapeutic. Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
80101, 80500-80502, 82486-82489, G0431
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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<th>Fac Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>80100.................</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
80101 (80104)

80101 Drug screen, qualitative; single drug class method (eg, immunodassay, enzyme assay), each drug class
80104 multiple drug classes other than chromatographic method, each procedure

Explanation
These tests may be requested as drug screens for multiple drug classes. In 80100, the screening test must be performed by a chromatographic technique that has good sensitivity, although it may not be as specific as a confirmatory test. Thin-layer chromatography is a common chromatographic technique for drug screening tests. It is performed by applying a thin layer adsorbent to a rectangular plate in the stationary phase. The specimen is applied to the plate and the end of the plate is placed in a solvent. As the solvent rises along the adsorbent on the plate, the different components of the specimen are carried along varying rates and deposited along the plate. The different components can be separately visualized and analyzed. In 80104, a number of different methods are available to screen for qualitative, nonchromatographic, multiple drug class assays, including multiplexed screening kits, urine cups, test cards, or test strips. Positive tests are always confirmed with a second method. Specimen type varies.

Coding Tips
Code 80104 is a resequenced code and will not display in numeric order. Code 80101 is classified as a Clinical Laboratory Improvement Amendments (CLIA)-waived test. Append with modifier QW. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Each single drug class method tested and reported is to be counted as one drug class. For example, if a sample is aliquoted to five wells and separate class-specific immunoassays are run on each of the five wells these are reported separately by indicating code 80101 five times. However, if multiple drugs can be detected by a single analysis, code 80100 should be reported only once. Refer to specific codes for quantitation of drugs screened. See CPT codes 82000-84999 for quantitative drug levels. To report therapeutic drug assays for quantitative drug screening, see codes 80150-80299.

ICD-9-CM Diagnostic Codes
304.02 Opioid type dependence, episodic
304.11 Sedative, hypnotic or anxiolytic dependence, continuous
304.12 Sedative, hypnotic or anxiolytic dependence, episodic
304.21 Cocaine dependence, continuous
304.22 Cocaine dependence, episodic
304.31 Cannabis dependence, continuous
304.32 Cannabis dependence, episodic
304.41 Amphetamine and other psychostimulant dependence, continuous
304.42 Amphetamine and other psychostimulant dependence, episodic
304.51 Hallucinogen dependence, continuous
304.52 Hallucinogen dependence, episodic
304.61 Other specified drug dependence, continuous
304.62 Other specified drug dependence, episodic
304.71 Combinations of opioid type drug with any other drug dependence, continuous
304.72 Combinations of opioid type drug with any other drug dependence, episodic
304.81 Combinations of drug dependence excluding opioid type drug, continuous
304.82 Combinations of drug dependence excluding opioid type drug, episodic
305.21 Nondependent cannabis abuse, continuous
305.22 Nondependent cannabis abuse, episodic
305.31 Nondependent hallucinogen abuse, continuous
305.32 Nondependent hallucinogen abuse, episodic
305.41 Nondependent sedative hypnotic or anxiolytic abuse, continuous
305.42 Nondependent sedative hypnotic or anxiolytic abuse, episodic
305.51 Nondependent opioid abuse, continuous
305.52 Nondependent opioid abuse, episodic
305.61 Nondependent cocaine abuse, continuous
305.62 Nondependent cocaine abuse, episodic
305.71 Nondependent amphetamine or related acting sympathomimetic abuse, continuous
305.72 Nondependent amphetamine or related acting sympathomimetic abuse, episodic
305.81 Nondependent antidepressant type abuse, continuous
305.82 Nondependent antidepressant type abuse, episodic

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
80500-80502
Also not with 80101: 83516-83518, G0431+

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
80102
80102 Drug confirmation, each procedure

Explanation
This test may be requested as drug screen confirmation. It is performed when the initial drug screen (80100-80101) is positive. Confirmatory tests must be both sensitive and specific and involve a different technique than the initial screen. For example, if the initial screen is performed by thin layer chromatography identifying a spot on the chromatogram that is the right color and in the right place to be consistent with a particular drug, it is confirmed with a more specific method, like high performance liquid chromatography (HPLC), gas chromatography-mass spectrometry (GC-MS), or immunoassay. If the drug suspected is a barbiturate, for example, a confirmatory HPLC method might be done to prove that the compound had the correct retention time, etc., and to identify it exactly as a particular barbiturate. This would be reported with 80102.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Procedures necessary for confirmation are reported using code 80102. Each combination of stationary and mobile phase is counted as one procedure. For example, if confirmation of three drugs by chromatography requires one stationary phase with three mobile phases, report code 80102 three times. However, if multiple drugs can be confirmed using a single analysis (e.g., one stationary phase with one mobile phase), report code 80102 only once. Refer to specific codes for quantitation of drugs screened. See CPT codes 82000-84999 for quantitative drug levels. To report therapeutic drug assays for quantitative drug screening, see codes 80150-80299.

ICD-9-CM Diagnostic Codes
304.01 Opioid type dependence, continuous
304.02 Opioid type dependence, episodic
304.11 Sedative, hypnotic or anxiolytic dependence, continuous
304.12 Sedative, hypnotic or anxiolytic dependence, episodic
304.21 Cocaine dependence, continuous
304.22 Cocaine dependence, episodic
304.31 Cannabis dependence, continuous
304.32 Cannabis dependence, episodic
304.41 Amphetamine and other psychostimulant dependence, continuous
304.42 Amphetamine and other psychostimulant dependence, episodic
304.51 Hallucinogen dependence, continuous
304.52 Hallucinogen dependence, episodic
304.71 Combinations of opioid type drug with any other drug dependence, continuous
304.72 Combinations of opioid type drug with any other drug dependence, episodic

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
80103

Tissue preparation for drug analysis

Explanation

Tissue is sometimes tested for the presence of drugs. This code reports the tissue preparation only.

Coding Tips

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. This code is used to report each preparation of tissue for a drug screen. The drug screens performed are separately reportable in addition to this code. See CPT codes 82000-84999 for chemistry drug levels. To report therapeutic drug assays for quantitative drug screening, see codes 80150-80299.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>304.01</td>
<td>Opioid type dependence, continuous</td>
</tr>
<tr>
<td>304.02</td>
<td>Opioid type dependence, episodic</td>
</tr>
<tr>
<td>304.11</td>
<td>Sedative, hypnotic or anxiolytic dependence, continuous</td>
</tr>
<tr>
<td>304.12</td>
<td>Sedative, hypnotic or anxiolytic dependence, episodic</td>
</tr>
<tr>
<td>304.21</td>
<td>Cocaine dependence, continuous</td>
</tr>
<tr>
<td>304.22</td>
<td>Cocaine dependence, episodic</td>
</tr>
<tr>
<td>304.31</td>
<td>Cannabis dependence, continuous</td>
</tr>
<tr>
<td>304.32</td>
<td>Cannabis dependence, episodic</td>
</tr>
<tr>
<td>304.41</td>
<td>Amphetamine and other psychostimulant dependence, continuous</td>
</tr>
<tr>
<td>304.42</td>
<td>Amphetamine and other psychostimulant dependence, episodic</td>
</tr>
<tr>
<td>304.51</td>
<td>Hallucinogen dependence, continuous</td>
</tr>
<tr>
<td>304.52</td>
<td>Hallucinogen dependence, episodic</td>
</tr>
<tr>
<td>304.61</td>
<td>Other specified drug dependence, continuous</td>
</tr>
<tr>
<td>304.62</td>
<td>Other specified drug dependence, episodic</td>
</tr>
<tr>
<td>304.71</td>
<td>Combinations of opioid type drug with any other drug dependence, continuous</td>
</tr>
<tr>
<td>304.72</td>
<td>Combinations of opioid type drug with any other drug dependence, episodic</td>
</tr>
<tr>
<td>304.81</td>
<td>Combinations of drug dependence excluding opioid type drug, continuous</td>
</tr>
<tr>
<td>304.82</td>
<td>Combinations of drug dependence excluding opioid type drug, episodic</td>
</tr>
<tr>
<td>304.90</td>
<td>Unspecified drug dependence, unspecified</td>
</tr>
<tr>
<td>305.21</td>
<td>Nondependent cannabis abuse, continuous</td>
</tr>
<tr>
<td>305.22</td>
<td>Nondependent cannabis abuse, episodic</td>
</tr>
<tr>
<td>305.23</td>
<td>Nondependent cannabis abuse, in remission</td>
</tr>
<tr>
<td>305.31</td>
<td>Nondependent hallucinogen abuse, continuous</td>
</tr>
<tr>
<td>305.32</td>
<td>Nondependent hallucinogen abuse, episodic</td>
</tr>
<tr>
<td>305.41</td>
<td>Nondependent sedative hypnotic or anxiolytic abuse, continuous</td>
</tr>
<tr>
<td>305.42</td>
<td>Nondependent sedative, hypnotic or anxiolytic abuse, episodic</td>
</tr>
<tr>
<td>305.43</td>
<td>Nondependent sedative, hypnotic or anxiolytic abuse, in remission</td>
</tr>
<tr>
<td>305.51</td>
<td>Nondependent opioid abuse, continuous</td>
</tr>
<tr>
<td>305.52</td>
<td>Nondependent opioid abuse, episodic</td>
</tr>
<tr>
<td>305.53</td>
<td>Nondependent opioid abuse, in remission</td>
</tr>
<tr>
<td>305.61</td>
<td>Nondependent cocaine abuse, continuous</td>
</tr>
<tr>
<td>305.62</td>
<td>Nondependent cocaine abuse, episodic</td>
</tr>
<tr>
<td>305.63</td>
<td>Nondependent cocaine abuse, in remission</td>
</tr>
<tr>
<td>305.71</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, continuous</td>
</tr>
<tr>
<td>305.72</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, episodic</td>
</tr>
<tr>
<td>305.73</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, in remission</td>
</tr>
<tr>
<td>305.81</td>
<td>Nondependent antidepressant type abuse, continuous</td>
</tr>
<tr>
<td>305.82</td>
<td>Nondependent antidepressant type abuse, episodic</td>
</tr>
<tr>
<td>305.83</td>
<td>Nondependent antidepressant type abuse, in remission</td>
</tr>
<tr>
<td>305.91</td>
<td>Other, mixed, or unspecified nondependent drug abuse, continuous</td>
</tr>
<tr>
<td>305.92</td>
<td>Other, mixed, or unspecified nondependent drug abuse, episodic</td>
</tr>
<tr>
<td>305.93</td>
<td>Other, mixed, or unspecified nondependent drug abuse, in remission</td>
</tr>
<tr>
<td>V70.4</td>
<td>Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)</td>
</tr>
<tr>
<td>V72.69</td>
<td>Other laboratory examination</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

No CCI Edits apply to this code.
Amikacin is a type of antibiotic. Test specimens are frequently collected at peak and trough periods, which is shortly after administration of amikacin and again just before the next administration when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Method is radioimmunoassay (RIA) or high performance liquid chromatography (HPLC).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration).

Terms To Know
assay. Test of purity.
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.
therapeutic. Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes
038.11 Methicillin susceptible Staphylococcus aureus septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
041.10 Unspecified staphylococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.11 Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.19 Other staphylococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.3 Klebsiella pneumoniae infection — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.41 Shiga toxin-producing Escherichia coli [E. coli] (STEC) O157 infection in conditions classified elsewhere and of unspecified site
041.42 Other specified Shiga toxin-producing Escherichia coli [E. coli] (STEC) infection in conditions classified elsewhere and of unspecified site
041.43 Unspecified Shiga toxin-producing Escherichia coli [E. coli] (STEC) infection in conditions classified elsewhere and of unspecified site
041.49 Other and unspecified Escherichia coli [E. coli] infection in conditions classified elsewhere and of unspecified site
041.6 Proteus (mirabilis) (morganii) infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.7 Pseudomonas infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.85 Infection due to other gram-negative organisms in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
771.89 Other infections specific to the perinatal period — (Use additional code(s) to further specify condition. Use additional code to identify organism: 041.00-041.9)
960.8 Poisoning by other specified antibiotics — (Use additional code to specify the effects of poisoning)
V72.69 Other laboratory examination

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
80152

80152  Amitriptyline

Explanation
Amitriptyline is a tricyclic antidepressant and the prototype brand name is Elavil. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Drug overdose may be reason for the test as well. Method is typically high performance liquid chromatography (HPLC) or gas liquid chromatography (GLC). This drug may be prescribed for disorders outside of depressive states, such as chronic pain.

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>296.22</td>
<td>Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.23</td>
<td>Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.24</td>
<td>Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.31</td>
<td>Major depressive disorder, recurrent episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.32</td>
<td>Major depressive disorder, recurrent episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.33</td>
<td>Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.34</td>
<td>Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Benzodiazepines encompass a family of mild sedatives, including diazepam (Valium) and Ativan. These drugs may be assayed to determine therapeutic levels, or sometimes to determine levels in the system following overdose. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. Method is high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), or radioimmunoassay (RIA). This family of drugs may be prescribed for numerous conditions and disorders. Alcohol withdrawal is a common use for diazepam, as are muscle spasms.

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes
291.0 Alcohol withdrawal delirium
291.1 Alcohol-induced persisting amnestic disorder
291.2 Alcohol-induced persisting dementia
291.3 Alcohol-induced psychotic disorder with hallucinations
291.4 Idiosyncratic alcohol intoxication
291.5 Alcohol-induced psychotic disorder with delusions
291.81 Alcohol withdrawal
292.0 Drug withdrawal — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
292.11 Drug-induced psychotic disorder with delusions — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
292.12 Drug-induced psychotic disorder with hallucinations — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
292.2 Pathological drug intoxication — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
292.81 Drug-induced delirium — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
293.0 Delirium due to conditions classified elsewhere — (Code first the associated physical or neurological condition)
293.1 Subacute delirium — (Code first the associated physical or neurological condition)
80155

Explanation
Caffeine is the most widely consumed stimulant in the world and is found in beverages, foods, and medications. This drug may cause moderate to severe symptoms and/or caffeine toxicity. Blood specimen is collected via venipuncture. Test specimens are collected randomly rather than at trough level. A quantitative analysis of caffeine in the bloodstream does not influence medical management of the patient. This test is most commonly used on neonatal patients that are not responding to caffeine therapy or have suspected toxicity of caffeine. Method is enzyme immunoassay (EIA).

Coding Tips
This code is new for 2013. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. If specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
assay. Test of purity.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
292.85 Drug induced sleep disorders — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
780.39 Other convulsions
780.97 Altered mental status
785.0 Unspecified tachycardia
785.1 Palpitations
785.9 Other symptoms involving cardiovascular system
786.50 Chest pain, unspecified
969.71 Poisoning by caffeine
E854.2 Accidental poisoning by psychostimulants
E980.3 Poisoning by tranquilizers and other psychotropic agents, undetermined whether accidentally or purposely inflicted
V72.60 Laboratory examination, unspecified
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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**80156-80157**

**80156**  Carbamazepine; total  
**80157**  free

**Explanation**
This drug, also known as Tegretol, is an enzyme inducer. Blood specimen collection is by venipuncture. CSF is obtained by spinal puncture, which is reported separately. Test specimens for total levels are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. This drug is absorbed slowly and erratically by the GI tract and a total concentration may be required, depending on the treatment underway. Methods include high performance liquid chromatography (HPLC) or gas liquid chromatography (GLC). Tegretol may be administered for such conditions as trigeminal neuralgia, epilepsy, and manic disorders. It is known for its anticonvulsant and pain management properties.

**Coding Tips**
Free carbamazepine may be ordered to help evaluate how the patient is metabolizing and using carbamazepine, but not for routine monitoring. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
quantitative, To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
No CCI Edits apply to this code.

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80158
80158  Cyclosporine

Explanation
This drug is also known as Sandimmune. It is an immunosuppressant and is often monitored. Test specimens are frequently collected at the trough period, which is typically about 12 hours after the last dose when serum concentration is at its lowest. Method is high performance liquid chromatography (HPLC) or fluorescence polarization immunoassay (FPIA).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
assay. Test of purity.
quantitative. To determine the amount and nature of the components of a substance.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
therapeutic. Act meant to alleviate a medical or mental condition.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
555.9  Regional enteritis of unspecified site
696.1  Other psoriasis
714.0  Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)
963.1  Poisoning by antineoplastic and immunosuppressive drugs — (Use additional code to specify the effects of poisoning)
996.80  Complications of transplanted organ, unspecified site — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.81  Complications of transplanted kidney — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.82  Complications of transplanted liver — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.83  Complications of transplanted heart — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

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Explanation
This drug, also known as Clozaril, is an atypical antipsychotic used to treat severe cases of schizophrenia in which the patient is a threat to themselves and/or others. It changes the activity of certain chemical processes in the brain. Agranulocytosis is the most common side effect and therefore white blood cell and absolute neutrophil count are required weekly for the first six months, biweekly for the second six months, and every four weeks after a year of being maintained on clozapine. Blood specimen is collected by venipuncture usually during the trough period. Methods include liquid chromatography and tandem mass spectrometry.

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
<th>Description</th>
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<tr>
<td>295.01</td>
<td>Simple schizophrenia, subchronic condition — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>295.02</td>
<td>Simple schizophrenia, chronic condition — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>295.03</td>
<td>Simple schizophrenia, subchronic condition with acute exacerbation — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Simple schizophrenia, chronic condition with acute exacerbation — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>295.05</td>
<td>Simple schizophrenia, in remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Disorganized schizophrenia, subchronic condition — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
80160
80160 Desipramine

Explanation
This drug is also known as Norpramin and is among the tricyclic antidepressants. Steady state test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Overdose is also a reason to run this test. Method is high performance liquid chromatography (HPLC) or gas liquid chromatography (GLC).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes
296.21 Major depressive disorder, single episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.22 Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.23 Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.24 Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.25 Major depressive disorder, single episode in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.31 Major depressive disorder, recurrent episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.32 Major depressive disorder, recurrent episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.33 Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.34 Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.35 Major depressive disorder, recurrent episode, in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.51 Bipolar I disorder, most recent episode (or current) depressed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.52 Bipolar I disorder, most recent episode (or current) depressed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.53 Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.54 Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
300.3 Obsessive-compulsive disorders
300.4 Dysthymic disorder
969.05 Poisoning by tricyclic antidepressants

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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80162
80162 Digoxin

Explanation
This digitalis glycoside has numerous trade names: Crystodigin, Purodigin, Lanoxin, etc. The drugs are used principally to treat conditions surrounding congestive heart failure, such as arrhythmias, atrial fibrillation, and tachycardia. Test specimens may be drawn during peak and trough periods, which is shortly after administration of digitalis and again just before the next administration when serum concentration is at its lowest. Method is high performance liquid chromatography (HPLC) or gas liquid chromatography (GLC).

Coding Tips
This examination is quantitative. For nonquantitative testing, see 80100–80104. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. An NCD applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.24. Note that the list of ICD-9-CM codes does not contain all diagnosis codes associated with the NCD. Please see the CD for a complete list.

ICD-9-CM Diagnostic Codes
427.0 Paroxysmal supraventricular tachycardia
427.1 Paroxysmal ventricular tachycardia
427.2 Unspecified paroxysmal tachycardia
427.31 Atrial fibrillation
427.32 Atrial flutter
427.41 Ventricular fibrillation
427.42 Ventricular flutter
427.60 Unspecified premature beats
427.61 Supraventricular premature beats
428.1 Left heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.20 Unspecified systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.21 Acute systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.22 Chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.23 Acute on chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.30 Unspecified diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.31 Acute diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.32 Chronic diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.33 Acute on chronic diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.40 Unspecified combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.41 Acute combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.42 Chronic combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.43 Acute on chronic combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.44 Unspecified heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.24

CCI Version 20.0
No CCI Edits apply to this code.
80164
80164 Dipropylacetic acid (valproic acid)

Explanation
This drug is also known as Depakene. This drug is often used to treat seizures. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Method is gas liquid chromatography (GLC), gas chromatography-mass spectrometry (GC-MS), and enzyme immunoassay (EIA).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. When venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires a physician's skill, see 36410.

ICD-9-CM Diagnostic Codes
296.41 Bipolar I disorder, most recent episode (or current) manic, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.42 Bipolar I disorder, most recent episode (or current) manic, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.43 Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.44 Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.51 Bipolar I disorder, most recent episode (or current) depressed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.52 Bipolar I disorder, most recent episode (or current) depressed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.53 Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.54 Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.61 Bipolar I disorder, most recent episode (or current) mixed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.62 Bipolar I disorder, most recent episode (or current) mixed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.63 Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.64 Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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ICD-9-CM Diagnostic Codes

296.21   Major depressive disorder, single episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.22   Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.23   Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.24   Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.26   Major depressive disorder, single episode in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.31   Major depressive disorder, recurrent episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

Coding Tips

Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

ICD-9-CM Diagnostic Codes

296.32   Major depressive disorder, recurrent episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.33   Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.34   Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.36   Major depressive disorder, recurrent episode, in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.51   Bipolar I disorder, most recent episode (or current) depressed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.52   Bipolar I disorder, most recent episode (or current) depressed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.53   Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.54   Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.55   Bipolar I disorder, most recent episode (or current) depressed, in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.82   Atypical depressive disorder — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
969.05   Poisoning by tricyclic antidepressants

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

No CCI Edits apply to this code.
80168
80168 Ethosuximide

Explanation
This drug may also be known as Zarontin. This is an anticonvulsant medication. Test specimens may be drawn during peak and trough periods, which is shortly after administration of Zarontin and again just before the next administration when serum concentration is at its lowest. Methods include high performance liquid chromatography (HPLC), radioimmunoassay (RIA), and microbiology assay.

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

Terms To Know
quantitative. To determine the amount and nature of the components of a substance.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
345.00 Generalized nonconvulsive epilepsy without mention of intractable epilepsy
345.01 Generalized nonconvulsive epilepsy with intractable epilepsy
345.10 Generalized convulsive epilepsy without mention of intractable epilepsy
345.11 Generalized convulsive epilepsy with intractable epilepsy
345.2 Epileptic petit mal status
345.90 Unspecified epilepsy without mention of intractable epilepsy
345.91 Unspecified epilepsy with intractable epilepsy
780.39 Other convulsions
966.3 Poisoning by other and unspecified anticonvulsants — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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Everolimus is also known as Zortress, Certican, and Afinitor. It is most commonly used to treat kidney transplant rejection and renal cell carcinoma. Blood specimen is collected via venipuncture during the trough period. This is an effective way to determine a therapeutic level of the drug. Methods include tandem mass spectrometry or high performance liquid chromatography (HPLC).

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

Terms To Know
assay. Test of purity.

ICD-9-CM Diagnostic Codes
157.0 Malignant neoplasm of head of pancreas
157.1 Malignant neoplasm of body of pancreas
157.2 Malignant neoplasm of tail of pancreas
157.3 Malignant neoplasm of pancreatic duct
157.4 Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)
157.8 Malignant neoplasm of other specified sites of pancreas
157.9 Malignant neoplasm of pancreas, part unspecified
174.0 Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.1 Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.2 Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.3 Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.4 Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.5 Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.6 Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.8 Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.9 Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
175.0 Malignant neoplasm of nipple and areola of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
175.9 Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
189.0 Malignant neoplasm of kidney, except pelvis
190.0 Malignant neoplasm of cerebrum, exceptlobes and ventricles
191.1 Malignant neoplasm of frontal lobe of brain
191.2 Malignant neoplasm of temporal lobe of brain
191.3 Malignant neoplasm of parietal lobe of brain
191.4 Malignant neoplasm of occipital lobe of brain
191.5 Malignant neoplasm of ventricles of brain
191.6 Malignant neoplasm of cerebellum NOS
191.7 Malignant neoplasm of brain stem
191.8 Malignant neoplasm of other parts of brain
191.9 Malignant neoplasm of brain, unspecified site
198.0 Secondary malignant neoplasm of kidney
759.5 Tuberous sclerosis
V43.89 Other organ or tissue replaced by other means
V58.83 Encounter for therapeutic drug monitoring — (Use additional code for any associated long-term current drug use: V58.61-V58.69)
V72.60 Laboratory examination, unspecified
V72.69 Other laboratory examination

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Work Value</th>
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<th>Fac PE</th>
<th>Malpractice</th>
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<th>Fac Total</th>
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</tbody>
</table>

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80170

80170  Gentamicin

**Explanation**

This drug is classified as an aminoglycoside, an antibiotic. In its injectable form, the drug may be prescribed for gram-negative infections, septicemia, and other serious infections, as well as unknown causative organisms. Common trade names include Garamycin and Gentacidin. A typical course will run seven to 10 days. Monitoring may be initiated to measure drug clearance via the kidneys. Patients with impaired renal function may accumulate the drug. Peak serum concentrations can be expected about 30 to 60 minutes following an intramuscular injection. Trough concentrations occur just before the next dose. Dosage is highly dependent on the severity of infection. Methodology varies.

**Coding Tips**

Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>003.0</td>
<td>Salmonella gastroenteritis</td>
</tr>
<tr>
<td>003.1</td>
<td>Salmonella septicemia</td>
</tr>
<tr>
<td>004.0</td>
<td>Shigella dysenteriae</td>
</tr>
<tr>
<td>004.1</td>
<td>Shigella flexneri</td>
</tr>
<tr>
<td>004.2</td>
<td>Shigella boydii</td>
</tr>
<tr>
<td>004.3</td>
<td>Shigella sonnei</td>
</tr>
<tr>
<td>004.8</td>
<td>Other specified shigella infections</td>
</tr>
<tr>
<td>004.9</td>
<td>Unspecified shigellosis</td>
</tr>
<tr>
<td>038.10</td>
<td>Unspecified staphylococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.11</td>
<td>Methicillin susceptible Staphylococcus aureus septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.12</td>
<td>Methicillin resistant Staphylococcus aureus septicemia</td>
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<tr>
<td>038.19</td>
<td>Other staphylococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.2</td>
<td>Pneumococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.3</td>
<td>Septicemia due to anaerobes — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.40</td>
<td>Septicemia due to unspecified gram-negative organism — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.41</td>
<td>Septicemia due to hemophilus influenzae (H. influenzae) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.42</td>
<td>Septicemia due to Escherichia coli (E. coli) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.43</td>
<td>Septicemia due to pseudomonas — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.44</td>
<td>Septicemia due to serratia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.49</td>
<td>Other septicemia due to gram-negative organism — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.8</td>
<td>Other specified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>038.9</td>
<td>Unspecified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>041.11</td>
<td>Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
</tr>
<tr>
<td>041.12</td>
<td>Methicillin resistant Staphylococcus aureus</td>
</tr>
<tr>
<td>960.8</td>
<td>Poisoning by other specified antibiotics — (Use additional code to specify the effects of poisoning)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
**Gabapentin**

**Explanation**
Gabapentin is also known as Gabarone and Neurontin. It is used to treat seizures. Test specimens are blood collected via venipuncture or urine collected via clean catch. This is an effective approach to determine a therapeutic level. Methods may include liquid chromatography-tandem mass spectrometry (LC-MS) or high performance liquid chromatography (HPLC).

**Coding Tips**
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

**Terms To Know**
assay, Test of purity.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>053.10</td>
<td>Herpes zoster with unspecified nervous system complication</td>
</tr>
<tr>
<td>053.11</td>
<td>Geniculate herpes zoster</td>
</tr>
<tr>
<td>053.12</td>
<td>Postherpetic trigeminal neuralgia</td>
</tr>
<tr>
<td>053.13</td>
<td>Postherpetic polyneuropathy</td>
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<tr>
<td>053.14</td>
<td>Herpes zoster myelitis</td>
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<tr>
<td>053.19</td>
<td>Other herpes zoster with nervous system complications</td>
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<tr>
<td>245.2</td>
<td>Chronic lymphocytic thyroiditis</td>
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<tr>
<td>333.94</td>
<td>Restless legs syndrome [RLS]</td>
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<tr>
<td>345.00</td>
<td>Generalized nonconvulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.3</td>
<td>Epileptic grand mal status</td>
</tr>
<tr>
<td>345.40</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.41</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.50</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy</td>
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<tr>
<td>345.51</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy</td>
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<tr>
<td>345.60</td>
<td>Infantile spasms without mention of intractable epilepsy</td>
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<tr>
<td>345.61</td>
<td>Infantile spasms with intractable epilepsy</td>
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</tbody>
</table>

**CCI Version 20.0**
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
80172

Explanation
This test may include the abbreviation for gold, Au, or the name Myochrysine. Gold salts are sometimes used in the treatment of rheumatoid arthritis. Therapeutic levels may be difficult to determine. Method is atomic absorption spectrophotometry (AAS).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

Terms To Know

inflammation. Cytologic and chemical reactions that occur in affected blood vessels and adjacent tissues in response to injury or abnormal stimulation from a physical, chemical, or biologic agent.

e AUTOMATOID arthritis. Autoimmune disease causing pain, stiffness, inflammation, and possibly joint destruction.

therapeutic. Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes

714.0 Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)

965.69 Poisoning by other antirheumatics — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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</table>

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80174

80174  Imipramine

Explanation
This drug may also be known as Tofranil. The drug is classified as a tricyclic antidepressant (TCA). Steady state test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Overdose may also prompt this test. Method is high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), gas chromatography-mass spectrometry (GC-MS), and radioimmunoassay (RIA).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100–80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36410. For collection of venous blood by venipuncture on a patient younger than 3 years of age, see code 36400–36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

ICD-9-CM Diagnostic Codes
296.21  Major depressive disorder, single episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.22  Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.23  Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.24  Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.32  Major depressive disorder, recurrent episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.33  Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.34  Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.51  Bipolar I disorder, most recent episode (or current) depressed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.52  Bipolar I disorder, most recent episode (or current) depressed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.53  Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.54  Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.56  Bipolar I disorder, most recent episode (or current) depressed, in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
300.4  Atypical depressive disorder
969.05  Poisoning by tricyclic antidepressants
V58.69  Long-term (current) use of other medications

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
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Lamotrigine is also known as Lamictal. It is used to treat and control seizures. Test specimen is blood collected via venipuncture. This is an effective approach to determine a therapeutic level. Method is enzyme immunoassay (EIA).

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

ICD-9-CM Diagnostic Codes

<table>
<thead>
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<th>Code</th>
<th>Description</th>
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<tr>
<td>296.00</td>
<td>Bipolar I disorder, single manic episode, unspecified — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
<td>296.01</td>
<td>Bipolar I disorder, single manic episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.02</td>
<td>Bipolar I disorder, single manic episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
<td>296.03</td>
<td>Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
<td>296.04</td>
<td>Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.05</td>
<td>Bipolar I disorder, single manic episode, in partial or unspecified remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.06</td>
<td>Bipolar I disorder, single manic episode, in full remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
<td>296.80</td>
<td>Bipolar disorder, unspecified — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>345.00</td>
<td>Generalized nonconvulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
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<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
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<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
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<tr>
<td>345.2</td>
<td>Epileptic petit mal status</td>
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<tr>
<td>345.3</td>
<td>Epileptic grand mal status</td>
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<tr>
<td>345.40</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.41</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.50</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.51</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.60</td>
<td>Infantile spasms without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.61</td>
<td>Infantile spasms with intractable epilepsy</td>
</tr>
<tr>
<td>345.70</td>
<td>Epilepsia partialis continua without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.71</td>
<td>Epilepsia partialis continua with intractable epilepsy</td>
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<tr>
<td>345.80</td>
<td>Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy</td>
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<tr>
<td>345.81</td>
<td>Other forms of epilepsy and recurrent seizures, with intractable epilepsy</td>
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<tr>
<td>345.90</td>
<td>Unspecified epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.91</td>
<td>Unspecified epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>V72.60</td>
<td>Laboratory examination, unspecified</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**Explanation**

This drug may also be known as Xylocaine, Dilocaïne, L-caine, etc. Lidocaine is widely used in its various forms, including nonprescription ointments. However, lidocaine may be injected as an intravenous bolus as a treatment for ventricular arrhythmias and for cardiac manipulation. Any of a number of methods may be used, including high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), gas chromatography-mass spectrometry (GC-MS), and fluorescence polarization immunoassay (FPIA).

**Coding Tips**

Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

**Terms To Know**

*arrhythmia.* Irregular heartbeat.

*intravenous.* Within a vein or veins.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>427.0</td>
<td>Paroxysmal supraventricular tachycardia</td>
</tr>
<tr>
<td>427.1</td>
<td>Paroxysmal ventricular tachycardia</td>
</tr>
<tr>
<td>427.2</td>
<td>Unspecified paroxysmal tachycardia</td>
</tr>
<tr>
<td>427.41</td>
<td>Ventricular fibrillation</td>
</tr>
<tr>
<td>427.42</td>
<td>Ventricular flutter</td>
</tr>
<tr>
<td>427.60</td>
<td>Unspecified premature beats</td>
</tr>
<tr>
<td>427.61</td>
<td>Supraventricular premature beats</td>
</tr>
<tr>
<td>427.69</td>
<td>Other premature beats</td>
</tr>
<tr>
<td>968.5</td>
<td>Poisoning by other central nervous system depressants and anesthetics, Surface (topical) and infiltration anesthetics — (Use additional code to specify the effects of poisoning)</td>
</tr>
<tr>
<td>968.6</td>
<td>Poisoning by peripheral nerve- and plexus-blocking anesthetics — (Use additional code to specify the effects of poisoning)</td>
</tr>
<tr>
<td>968.7</td>
<td>Poisoning by spinal anesthetics — (Use additional code to specify the effects of poisoning)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Levetiracetam

Explanation
Levetiracetam is also known as Keppra. It is used to treat and control seizures. Test specimen is blood collected via venipuncture. Therapeutic levels may be difficult to determine. Method is enzyme immunoassay (EIA).

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

ICD-9-CM Diagnostic Codes
345.00  Generalized nonconvulsive epilepsy without mention of intractable epilepsy
345.01  Generalized nonconvulsive epilepsy with intractable epilepsy
345.10  Generalized convulsive epilepsy without mention of intractable epilepsy
345.11  Generalized convulsive epilepsy with intractable epilepsy
345.2   Epileptic petit mal status
345.3   Epileptic grand mal status
345.40  Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
345.41  Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
345.50  Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
345.51  Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
345.60  Infantile spasms without mention of intractable epilepsy
345.61  Infantile spasms with intractable epilepsy
345.70  Epilepsia partialis continua without mention of intractable epilepsy
345.71  Epilepsia partialis continua with intractable epilepsy
345.80  Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy
345.81  Other forms of epilepsy and recurrent seizures, with intractable epilepsy
345.90  Unspecified epilepsy without mention of intractable epilepsy
345.91  Unspecified epilepsy with intractable epilepsy
V72.60  Laboratory examination, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
### 80178

**Lithium**

**Explanation**

This drug may also be known as Eskalith. Lithium is a naturally occurring mineral and its salts may be used in the treatment of mental disorders, in particular bipolar depression. Steady state test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Methods may include flame emission spectroscopy (FES), atomic absorption spectrophotometry (AAS), and ion-specific electrode (ISE).

#### Coding Tips

Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drugs and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient younger than 3 years of age or older requires physician skill, see code 36410.

#### Terms To Know

**bipolar disorder.** Manic-depressive psychosis that has appeared in both the depressive and manic form, either alternating or separated by an interval of normality. Atypical: Episode of affective psychosis with some, but not all, of the features of the one form of the disorder in individuals who have had a previous episode of the other form of the disorder. **therapeutic.** Act meant to alleviate a medical or mental condition.

#### ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>295.00</td>
<td>Bipolar I disorder, single manic episode, unspecified — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
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<td>Bipolar I disorder, most recent episode (or current) manic, unspecified — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.89</td>
<td>Other and unspecified bipolar disorders — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Depressive disorder, not elsewhere classified</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

#### CCI Version 20.0

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**80180**

80180 Mycophenolate (mycophenolic acid)

**Explanation**
Mycophenolate is also known as CellCept, CellCept MPA, Mofetil Ester, and Myfortic. This drug is an immunosuppressive given to patients to treat autoimmune diseases, such as lupus, rheumatoid arthritis, Crohn's disease, among others and is also prescribed to help manage organ transplant rejection. Test specimen is blood collected via venipuncture. This is an effective approach to determine a therapeutic level. Methods include tandem mass spectrometry or high performance liquid chromatography (HPLC).

**Coding Tips**
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

**Terms To Know**
- Assay, Test of purity.

**ICD-9-CM Diagnostic Codes**
- 582.81 Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 277.30-277.39, 710.0)
- 583.81 Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere — (Code first underlying disease: 016.0, 098.19, 249.4, 250.4, 277.30-277.39, 446.21, 710.0)
- 710.0 Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)
- V42.0 Kidney replaced by transplant
- V42.1 Heart replaced by transplant
- V42.7 Liver replaced by transplant
- V72.60 Laboratory examination, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

<table>
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</table>
80182

Explanation
This drug may also be known as Aventyl or Pamelor. This drug is classified as a tricyclic antidepressant (TCA). Steady state test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Overdose may also prompt this test. Any of a number of methods may be used, including high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), and gas chromatography-mass spectrometry (GC-MS).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

ICD-9-CM Diagnostic Codes
296.22 Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.23 Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.24 Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.31 Major depressive disorder, recurrent episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.32 Major depressive disorder, recurrent episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.33 Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.34 Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.41 Bipolar I disorder, most recent episode (or current) manic, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.42 Bipolar I disorder, most recent episode (or current) manic, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.43 Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.51 Bipolar I disorder, most recent episode (or current) depressed, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.52 Bipolar I disorder, most recent episode (or current) depressed, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
296.53 Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
969.05 Poisoning by tricyclic antidepressants

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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</table>
Oxcarbazepine is also known as Trileptal and is an anticonvulsant and mood stabilizer used to treat epilepsy, motor tics, bipolar disorder, and anxiety. Test specimen is blood collected via venipuncture. This is an effective approach to determine a therapeutic level. Methods include tandem mass spectrometry or liquid chromatography.

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
<th>Description</th>
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<td>296.00</td>
<td>Bipolar I disorder, single manic episode, unspecified —</td>
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<td>(Use additional code to identify any associated physical disease, injury,</td>
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<tr>
<td></td>
<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.01</td>
<td>Bipolar I disorder, single manic episode, mild —</td>
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<td>(Use additional code to identify any associated physical disease, injury,</td>
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<td></td>
<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.02</td>
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<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.03</td>
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<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.04</td>
<td>Bipolar I disorder, single manic episode, severe, specified as with</td>
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<td></td>
<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<tr>
<td>296.05</td>
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<td>296.06</td>
<td>Bipolar I disorder, single manic episode, in full remission —</td>
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<td>296.20</td>
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<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.21</td>
<td>Major depressive disorder, single episode, mild —</td>
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<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Major depressive disorder, single episode, moderate — (Use additional code</td>
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<td>to identify any associated physical disease, injury, or condition affecting</td>
</tr>
<tr>
<td></td>
<td>the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.24</td>
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<td>psychiatric behavior —</td>
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<td></td>
<td>(Use additional code to identify any associated physical disease, injury,</td>
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<tr>
<td></td>
<td>or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>296.25</td>
<td>Major depressive disorder, single episode, in partial or unspecified</td>
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<td></td>
<td>remission — (Use additional code to identify any associated physical</td>
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<td></td>
<td>disease, injury, or condition affecting the brain with psychoses</td>
</tr>
<tr>
<td></td>
<td>classifiable to 295-298)</td>
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<tr>
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<td>Atypical manic disorder — (Use additional code to identify any associated</td>
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<td>classifiable to 295-298)</td>
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<tr>
<td>307.20</td>
<td>Tic disorder, unspecified</td>
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<tr>
<td>345.00</td>
<td>Generalized nonconvulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
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<tr>
<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
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<tr>
<td>345.2</td>
<td>Epileptic petit mal status</td>
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<td>345.3</td>
<td>Epileptic grand mal status</td>
</tr>
<tr>
<td>377.60</td>
<td>Laboratory examination, unspecified</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
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<th>Code</th>
<th>Diagnostic Code</th>
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<tbody>
<tr>
<td>80183</td>
<td>Oxcarbazepine</td>
</tr>
</tbody>
</table>

| Procedure Codes | 80183 Oxcarbazepine | Explanation | Oxcarbazepine is also known as Trileptal and is an anticonvulsant and mood stabilizer used to treat epilepsy, motor tics, bipolar disorder, and anxiety. Test specimen is blood collected via venipuncture. This is an effective approach to determine a therapeutic level. Methods include tandem mass spectrometry or liquid chromatography. |
| Work Value | Non-Fac PE | Fac PE | Malpractice | Non-Fac Total | Fac Total |
| 80183..........0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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80184
Phenobarbital

**Explanation**
This drug may also be known as Luminal. This drug may be administered to control seizures. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Methodology may include gas liquid chromatography (GLC) and high performance liquid chromatography (HPLC).

**Coding Tips**
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

**Terms To Know**
- **qualitative.** To determine the nature of the component of substance.
- **quantitative.** To determine the amount and nature of the components of a substance.
- **seizure.** Sudden, abnormal electrical activity in the brain due to any number of causes including medication, high fever, head injuries, epilepsy, and other diseases. Seizures fall into two main groups. Focal seizures, also called partial seizures, happen in just one section of the brain. Generalized seizures are the result of abnormal activity on both sides of the brain.
- **therapeutic.** Act meant to alleviate a medical or mental condition.

**ICD-9-CM Diagnostic Codes**

<table>
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<th>Code</th>
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<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
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<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
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<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
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<tr>
<td>345.3</td>
<td>Epileptic grand mal status</td>
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<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy</td>
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<tr>
<td>345.41</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
Explanation
This drug may also be known as Dilantin. This drug may be administered to control seizures. Steady state test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Report 80185 for total serum levels and 80186 when free phenytoin is assayed. Methodology may include high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), radioimmunoassay (RIA), and fluorescence polarization immunoassay (FPIA). Free phenytoin is assayed by ultracentrifugation. Phenytoin is a known teratogen (cause of birth defects) and lowest therapeutic levels possible are often sought.

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100–80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400–36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

Terms To Know
assay. Test of purity.
therapeutic. Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes
345.00 Generalized nonconvulsive epilepsy without mention of intractable epilepsy
345.01 Generalized nonconvulsive epilepsy with intractable epilepsy
345.10 Generalized convulsive epilepsy without mention of intractable epilepsy
345.11 Generalized convulsive epilepsy with intractable epilepsy
345.2 Epileptic petit mal status
345.3 Epileptic grand mal status
345.40 Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
345.41 Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy

<table>
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Primidone

Explanation
This drug may also be known as Mysoline. This drug may be administered to control seizures. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Methodology may include high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), or enzyme immunoassay (EIA).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

Terms To Know
- assay: Test of purity.
- qualitative: To determine the nature of the component of substance.
- seizure: Sudden, abnormal electrical activity in the brain due to any number of causes including medication, high fever, head injuries, epilepsy, and other diseases. Seizures fall into two main groups. Focal seizures, also called partial seizures, happen in just one section of the brain. Generalized seizures are the result of abnormal activity on both sides of the brain.
- specimen: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- therapeutic: Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>345.00</td>
<td>Generalized nonconvulsive epilepsy without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.2</td>
<td>Epileptic petit mal status</td>
</tr>
<tr>
<td>345.3</td>
<td>Epileptic grand mal status</td>
</tr>
<tr>
<td>345.40</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.41</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy</td>
</tr>
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<td>345.50</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy</td>
</tr>
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<td>345.51</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.60</td>
<td>Infantile spasms without mention of intractable epilepsy</td>
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<td>345.61</td>
<td>Infantile spasms with intractable epilepsy</td>
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<tr>
<td>345.70</td>
<td>Epilepsia partialis continua without mention of intractable epilepsy</td>
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<tr>
<td>345.71</td>
<td>Epilepsia partialis continua with intractable epilepsy</td>
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<tr>
<td>345.80</td>
<td>Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.81</td>
<td>Other forms of epilepsy and recurrent seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.90</td>
<td>Unspecified epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.91</td>
<td>Unspecified epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>780.31</td>
<td>Febrile convulsions (simple), unspecified</td>
</tr>
<tr>
<td>780.32</td>
<td>Complex febrile convulsions</td>
</tr>
<tr>
<td>780.33</td>
<td>Post traumatic seizures</td>
</tr>
<tr>
<td>780.39</td>
<td>Other convulsions</td>
</tr>
<tr>
<td>966.3</td>
<td>Poisoning by other and unspecified anticonvulsants — (Use additional code to specify the effects of poisoning)</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**80190-80192**

**80190** Procainamide;  
**80192** with metabolites (eg, n-acetyl procainamide)

**Explanation**  
This drug may also be known as Procan, Promine, or Pronestyl. This drug may be administered as an antiarrhythmic. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Methodology may include high performance liquid chromatography (HPLC), gas liquid chromatography (GLC), and enzyme immunoassay (EIA). 80192 tests for Procan as well as metabolites, known as NAPA (n-acetyl procainamide).

**Coding Tips**  
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410.

**ICD-9-CM Diagnostic Codes**

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<tr>
<th>Code</th>
<th>Description</th>
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<td>Angina decubitus — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>413.1</td>
<td>Prinzmetal angina — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>427.0</td>
<td>Paroxysmal supraventricular tachycardia</td>
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<td>427.1</td>
<td>Paroxysmal ventricular tachycardia</td>
</tr>
<tr>
<td>427.2</td>
<td>Unspecified paroxysmal tachycardia</td>
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<tr>
<td>427.31</td>
<td>Atrial fibrillation</td>
</tr>
<tr>
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<td>Atrial flutter</td>
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<tr>
<td>427.41</td>
<td>Ventricular fibrillation</td>
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<td>Ventricular flutter</td>
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<td>Cardiac arrest</td>
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<td>427.60</td>
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<td>427.61</td>
<td>Supraventricular premature beats</td>
</tr>
<tr>
<td>427.69</td>
<td>Other premature beats</td>
</tr>
<tr>
<td>427.81</td>
<td>Sinoatrial node dysfunction</td>
</tr>
<tr>
<td>428.0</td>
<td>Congestive heart failure, unspecified — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)</td>
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</table>

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80194
Quinidine

Explanation
This drug may also be known as Duraquin, Quinate, Quinora, or Cardioquin. This drug is often administered as an antiarrhythmic. Test specimens are frequently collected at the trough period, which is about 12 hours after the last dose when serum concentration is at its lowest. This is an effective approach to determine a therapeutic level of drug. Methodology may include high performance liquid chromatography (HPLC) and gas liquid chromatography (GLC).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

Terms To Know
- arrhythmias. Heart disorder of rhythm or rate, due to an electrical conduction system malfunction.
- assay. Test of purity.
- qualitative. To determine the nature of the component of substance.
- quantitative. To determine the amount and nature of the components of a substance.
- specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- therapeutic. Act meant to alleviate a medical or mental condition.

ICD-9-CM Diagnostic Codes
- 413.0 Angina decubitus — (Use additional code to identify presence of hypertension: 401.0-405.9)
- 413.1 Prinzmetal angina — (Use additional code to identify presence of hypertension: 401.0-405.9)
- 427.0 Paroxysmal supraventricular tachycardia
- 427.1 Paroxysmal ventricular tachycardia
- 427.2 Unspecified paroxysmal tachycardia
- 427.31 Atrial fibrillation
- 427.32 Atrial flutter
- 427.41 Ventricular fibrillation
- 427.42 Ventricular flutter
- 427.60 Unspecified premature beats
- 427.61 Supraventricular premature beats
- 427.69 Other premature beats
- 427.81 Sinoatrial node dysfunction
- 428.0 Congestive heart failure, unspecified — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.1 Left heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.21 Acute systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.22 Chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.23 Acute on chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.31 Acute diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.32 Chronic diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.33 Acute on chronic diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.41 Acute combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.42 Chronic combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 428.43 Acute on chronic combined systolic and diastolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
- 972.0 Poisoning by cardiac rhythm regulators — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
This drug may also be known by numerous names, such as Aerolate, Bronkodyl, Sustaire, and Theophyl. This drug is available in several different forms, which may affect the type of assay run. Samples may be drawn about 30 minutes after oral administration. When delivered by IV, specimen collection may be random. The drug is widely used as a bronchodilator and to relieve bronchospasms. Methodology may include high performance liquid chromatography (HPLC) or gas liquid chromatography (GLC).

Coding Tips
Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104. Test assays are frequently collected at peak and trough periods (i.e., shortly after administration of the drug and approximately 12 hours after drug administration). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see 36415. For venipuncture on a patient younger than 3 years of age, see 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see 36410.

Terms To Know
assay. Test of purity.
asthma. Narrowing or inflammation of the airway causing obstructed, labored breathing.
emphysema. Pathological condition in which there is destructive enlargement of the air spaces in the lungs resulting in damage to the alveolar walls, commonly seen in long-term smokers.

ICD-9-CM Diagnostic Codes
466.0 Acute bronchitis — (Use additional code to identify infectious organism)
466.11 Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)
466.19 Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)
491.0 Simple chronic bronchitis — (Use additional code to identify infectious organism)
491.1 Mucopurulent chronic bronchitis — (Use additional code to identify infectious organism)
491.20 Obstructive chronic bronchitis, without exacerbation — (Use additional code to identify infectious organism)
491.21 Obstructive chronic bronchitis, with (acute) exacerbation — (Use additional code to identify infectious organism)
491.08 Other chronic bronchitis — (Use additional code to identify infectious organism)
491.9 Unspecified chronic bronchitis — (Use additional code to identify infectious organism)
492.0 Emphysematous bleb
492.8 Other emphysema
493.00 Extrinsic asthma, unspecified
493.01 Extrinsic asthma with status asthmaticus
493.02 Extrinsic asthma, with (acute) exacerbation
493.10 Intrinsic asthma, unspecified
493.11 Intrinsic asthma with status asthmaticus
493.12 Intrinsic asthma, with (acute) exacerbation
493.20 Chronic obstructive asthma, unspecified
493.21 Chronic obstructive asthma with status asthmaticus
493.22 Chronic obstructive asthma, with (acute) exacerbation
493.81 Exercise induced bronchospasm
493.82 Cough variant asthma
493.90 Asthma, unspecified, unspecified status
493.91 Asthma, unspecified with status asthmaticus
493.92 Asthma, unspecified, with (acute) exacerbation
496 Chronic airway obstruction, not elsewhere classified — (Note: This code is not to be used with any code from 491-493)
519.11 Acute bronchospasm
519.19 Other diseases of trachea and bronchus — (Use additional code to identify infectious organism)
786.05 Shortness of breath
786.07 Wheezing
974.1 Poisoning by purine derivative diuretics — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
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</tbody>
</table>

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Tiagabine is also known as Gabitril and is an anticonvulsant used to treat partial seizures. Test specimen is blood collected via venipuncture. This is an effective approach to determine a therapeutic level. Methods include tandem mass spectrometry or high performance liquid chromatography (HPLC).

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

ICD-9-CM Diagnostic Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>345.00</td>
<td>Generalized nonconvulsive epilepsy without mention of intractable epilepsy</td>
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<tr>
<td>345.01</td>
<td>Generalized nonconvulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.10</td>
<td>Generalized convulsive epilepsy without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.11</td>
<td>Generalized convulsive epilepsy with intractable epilepsy</td>
</tr>
<tr>
<td>345.2</td>
<td>Epileptic petit mal status</td>
</tr>
<tr>
<td>345.3</td>
<td>Epileptic grand mal status</td>
</tr>
<tr>
<td>345.40</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.41</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.50</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.51</td>
<td>Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.60</td>
<td>Infantile spasms without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.61</td>
<td>Infantile spasms with intractable epilepsy</td>
</tr>
<tr>
<td>345.70</td>
<td>Epilepsia partialis continua without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.71</td>
<td>Epilepsia partialis continua with intractable epilepsy</td>
</tr>
<tr>
<td>345.80</td>
<td>Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.81</td>
<td>Other forms of epilepsy and recurrent seizures, with intractable epilepsy</td>
</tr>
<tr>
<td>345.90</td>
<td>Unspecified epilepsy without mention of intractable epilepsy</td>
</tr>
<tr>
<td>345.91</td>
<td>Unspecified epilepsy with intractable epilepsy</td>
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<table>
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<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>V72.60</td>
<td>Laboratory examination, unspecified</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
80203

Zonisamide

Explanation
Zonisamide is also known as Excegran and Zonegran. It is a sulfonamide anticonvulsant used to treat partial-onset seizures. Test specimen is blood collected via venipuncture. Therapeutic levels may be difficult to determine. Methods include enzyme immunoassay (EIA).

Coding Tips
This code is new for 2014. Each assay is separately reportable. This code reports quantitative therapeutic drug assay from any source. For qualitative testing, see CPT codes 80100-80104.

ICD-9-CM Diagnostic Codes
345.00 Generalized nonconvulsive epilepsy without mention of intractable epilepsy
345.01 Generalized nonconvulsive epilepsy with intractable epilepsy
345.10 Generalized convulsive epilepsy without mention of intractable epilepsy
345.11 Generalized convulsive epilepsy with intractable epilepsy
345.2 Epileptic petit mal status
345.3 Epileptic grand mal status
345.40 Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
345.41 Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
345.50 Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
345.51 Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
345.60 Infantile spasms without mention of intractable epilepsy
345.61 Infantile spasms with intractable epilepsy
345.70 Epilepsia partialis continua without mention of intractable epilepsy
345.71 Epilepsia partialis continua with intractable epilepsy
345.80 Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy
345.81 Other forms of epilepsy and recurrent seizures, with intractable epilepsy
345.90 Unspecified epilepsy without mention of intractable epilepsy
345.91 Unspecified epilepsy with intractable epilepsy
348.60 Laboratory examination, unspecified

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
80400-80406

80400 ACTH stimulation panel; for adrenal insufficiency
80402 for 21 hydroxylase deficiency
80406 for 3 beta-hydroxydehydrogenase deficiency

Explanation
These codes describe ACTH stimulation panels and correct code selection is dependent upon the specific hormone tested. Code 80400 is sometimes ordered as corticotropin-releasing factor stimulation (or CRF) test, adrenocorticotropic hormone (ACTH) infusion test, rapid ACTH test, or cosyntropin test and is the test for adrenal insufficiency (Addison’s disease). Method is immunoassay. A chemistry test must be performed to determine baseline serum cortisol (serum ACTH may also be ordered). Shortly thereafter, cosyntropin, an ACTH-like drug, is administered to the patient, typically by IV bolus. Blood is again drawn and assayed for a change in serum cortisol. Variations are seen in administering a 24-hour test and a three-day test. Code 80402 may be ordered as enzyme deficiency ACTH stimulation test. It specifically cites 21-hydroxylase deficiency. The classic 21-hydroxylase deficiency is noted in ambiguous genitalia in neonates, but a later onset is also found. Cosyntropin, an ACTH-like drug, is administered to the patient, typically by IV bolus. Overproduction of the metabolite 17-hydroxyprogesterone is often associated with this condition and it is tested for as a baseline and following the ACTH stimulation injection. Cortisol levels are tested in a similar fashion in this panel. The test represented by code 80406 may be ordered as a 3B-HSD panel. The official description for the code is for 3 beta-hydroxydehydrogenase deficiency or congenital adrenal hyperplasia. The panel may often be performed on infants and small children, but adult patients are also tested. The condition involves defects in steroid synthesis. A bolus infusion of ACTH is given to the patient after baseline cortisol and 17-hydroxypregnenolone have been drawn. Cortisol and 17-hydroxypregnenolone are drawn again and the results interpreted.

Coding Tips
This code is only for the laboratory component of the overall evocative/suppression testing. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365–96376) when appropriate. In the code descriptors, note the number of times the test for a particular analyte is performed. Additional testing, beyond the procedure definition, is also separately billable. According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400–80440 series. Instead, list the individual tests performed. See code 82533 for serum cortisol testing specifics. Panel 80400 must include the following: cortisol (82533 x 2). Panel 80402 must contain cortisol (85233 x2) and 17-hydroxyprogesterone (82498x2). When reporting panel 80406 cortisol (82533 x 2), 17-hydroxypregnenolone (84143 x 2) must be performed. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
analyte. Any material or chemical substance subjected to analysis.
assay. Test of purity.
intravenous. Within a vein or veins.

ICD-9-CM Diagnostic Codes
255.2 Adrenogenital disorders
255.41 Glucocorticoid deficiency
255.42 Mineralocorticoid deficiency
255.5 Other adrenal hypofunction

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 82533
Also not with 80400: 80402-80406
Also not with 80402: 83498
Also not with 80406: 80402, 84143

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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80408

80408   Aldosterone suppression evaluation panel (eg, saline infusion)

Explanation
This panel may be ordered as a saline infusion test. Specimen is drawn from the patient while in an upright position and the product saved for baseline aldosterone and renin testing. The patient is administered saline, usually intravenously, while in a recumbent position. Specimen is again drawn for aldosterone and renin levels. In healthy individuals, aldosterone output is suppressed when the volume of blood is expanded. The test is useful in the evaluation of kidney function.

Coding Tips
This code is only for the laboratory component of the overall evocative/suppression testing. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. In the code descriptors, note the number of times the test for a particular analyte is performed. Additional testing, beyond the procedure definition, is also separately billable. According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. This panel must include the following: aldosterone (82088 x 2) and renin (84244 x 2). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes

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<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
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<tbody>
<tr>
<td>189.0</td>
<td>Malignant neoplasm of kidney, except pelvis</td>
</tr>
<tr>
<td>198.0</td>
<td>Secondary malignant neoplasm of kidney</td>
</tr>
<tr>
<td>223.0</td>
<td>Benign neoplasm of kidney, except pelvis</td>
</tr>
<tr>
<td>255.10</td>
<td>Hyperaldosteronism, unspecified</td>
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<tr>
<td>255.11</td>
<td>Glucocorticoid-remediable aldosteronism</td>
</tr>
<tr>
<td>255.12</td>
<td>Conn's syndrome</td>
</tr>
<tr>
<td>255.13</td>
<td>Bartter's syndrome</td>
</tr>
<tr>
<td>398.91</td>
<td>Rheumatic heart failure (congestive)</td>
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<tr>
<td>401.0</td>
<td>Essential hypertension, malignant</td>
</tr>
<tr>
<td>401.1</td>
<td>Essential hypertension, benign</td>
</tr>
<tr>
<td>402.00</td>
<td>Malignant hypertensive heart disease without heart failure</td>
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<tr>
<td>402.01</td>
<td>Malignant hypertensive heart disease with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)</td>
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<tr>
<td>402.10</td>
<td>Benign hypertensive heart disease without heart failure</td>
</tr>
<tr>
<td>402.11</td>
<td>Benign hypertensive heart disease with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)</td>
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<tr>
<td>403.00</td>
<td>Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)</td>
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<tr>
<td>403.01</td>
<td>Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)</td>
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<tr>
<td>403.10</td>
<td>Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)</td>
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<tr>
<td>403.11</td>
<td>Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)</td>
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<tr>
<td>404.00</td>
<td>Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)</td>
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<tr>
<td>404.01</td>
<td>Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 82088, 84244
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Calcitonin stimulation panel (eg, calcium, pentagastrin)

Explanation
This test may be ordered as human calcitonin test (HCT) or thyrocalcitonin panel. Calcitonin is a hormone secreted by the thyroid gland in response to elevated serum calcium levels. Calcitonin secretion causes the calcium to be excreted by the kidneys. A baseline calcitonin level is drawn. Stimulation of the thyroid for this panel is typically pentagastrin delivered by IV. Blood is again drawn at five and 10 minutes from stimulation. The patient should be fasting.

Coding Tips
This code is only for the laboratory component of the overall evocative/suppression testing. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365–96376) when appropriate. Additional testing, beyond the procedure definition, is also separately billable. According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. This panel must include the following: calcitonin (82308 x 3). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
infusion. Introduction of a therapeutic fluid, other than blood, into the bloodstream.

injection. Forcing a liquid substance into a body part such as a joint or muscle.

ICD-9-CM Diagnostic Codes

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>157.0</td>
<td>Malignant neoplasm of head of pancreas</td>
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<td>157.1</td>
<td>Malignant neoplasm of body of pancreas</td>
</tr>
<tr>
<td>157.2</td>
<td>Malignant neoplasm of tail of pancreas</td>
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<tr>
<td>157.3</td>
<td>Malignant neoplasm of pancreatic duct</td>
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<tr>
<td>157.4</td>
<td>Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)</td>
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<tr>
<td>157.8</td>
<td>Malignant neoplasm of other specified sites of pancreas</td>
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<tr>
<td>157.9</td>
<td>Malignant neoplasm of pancreas, part unspecified</td>
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<tr>
<td>162.2</td>
<td>Malignant neoplasm of main bronchus</td>
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<tr>
<td>162.3</td>
<td>Malignant neoplasm of upper lobe, bronchus, or lung</td>
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<tr>
<td>162.4</td>
<td>Malignant neoplasm of middle lobe, bronchus, or lung</td>
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<td>162.5</td>
<td>Malignant neoplasm of lower lobe, bronchus, or lung</td>
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<tr>
<td>162.8</td>
<td>Malignant neoplasm of other parts of bronchus or lung</td>
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<tr>
<td>162.9</td>
<td>Malignant neoplasm of bronchus and lung, unspecified site</td>
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<td>193</td>
<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
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<td>258.02</td>
<td>Multiple endocrine neoplasia [MEN] type IIA</td>
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<tr>
<td>258.03</td>
<td>Multiple endocrine neoplasia [MEN] type IIB</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 82308
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Corticotropic releasing hormone (CRH) stimulation panel

Explanation
This test may be ordered as CRH "Stim" panel. This panel allows for multiple specimens to be drawn before administration of CRH. Orders may call for blood draws from both petrous sinus veins as well as from a peripheral source. Note the high number of cortisol and ACTH tests to be run. The timing of specimen draws for cortisol and ACTH may differ somewhat. The panel is useful to differentiate Cushing's disease and certain ACTH-secreting tumors, among other disorders.

Coding Tips
This code is only for the laboratory component of the overall evocative/suppression testing. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. In the code descriptors, note the number of times the test for a particular analyte is performed. Additional testing, beyond the procedure definition, is also separately billable. According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. This panel must include the following: cortisol (82533 x 6) and adrenocorticotropic hormone (ACTH) (82024 x 6). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff.

Terms To Know
Cushing's syndrome. Abdominal striae, acne, hypertension, decreased carbohydrate tolerance, moon face, obesity, protein catabolism, and psychiatric disturbances resulting from increased adrenocortical secretion of cortisol caused by ACTH-dependent adrenocortical hyperplasia or tumor, or by effects of steroids.

hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).

peripheral. Outside of a structure or organ.

ICD-9-CM Diagnostic Codes
253.0 Acromegaly and gigantism
253.1 Other and unspecified anterior pituitary hyperfunction
253.2 Panhypopituitarism
253.3 Pituitary dwarfism
253.4 Other anterior pituitary disorders
253.5 Diabetes insipidus
253.6 Other disorders of neurohypophysis
253.8 Other disorders of the pituitary and other syndromes of diencephalohypophyseal origin
253.9 Unspecified disorder of the pituitary gland and its hypothalamic control
255.0 Cushing's syndrome — (Use additional E code to identify cause, if drug-induced)
962.0 Poisoning by adrenal cortical steroids — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 82024, 82533
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**80414-80415**

80414  Chorionic gonadotropin stimulation panel; testosterone response  
80415  estradiol response  

**Explanation**

Code 80414 may be ordered as a HCG "Stim" or human chorionic gonadotropin panel. Blood specimens may be drawn on two separate mornings before HCG is administered, usually by intramuscular injection. Injections may be repeated on two following days. Blood collection times may vary following HCG administration. The test is useful in diagnosis of certain cases of hypogonadotrophism as well as certain steroid deficiencies. Code 80415 may be ordered as a HCG "Stim" or human chorionic gonadotropin panel. Blood specimens may be drawn on two separate mornings before HCG is administered, usually by intramuscular injection and sometimes in several sessions. Timing of blood draws may vary, but just prior to the first administration of HCG and four hours after is common for women. Estradiol is among the more active endogenous estrogens. The panel is useful in the diagnosis of certain menstrual disorders, fertility problems, and estrogen-producing tumors.  

**Coding Tips**

Code 80414 is only for the laboratory component of the overall evocative/suppression testing. This panel must include the following: testosterone (84403 x 2) on three pooled blood samples. Panel 80415 must include the following: estradiol (82670 x 2) on three pooled blood samples. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff.  

**Terms To Know**

**chorionic gonadotropin.** Hormone normally produced by the placenta in pregnancy. This injectable hormone drug has the same action as luteinizing hormone manufactured in the pituitary gland and helps women to conceive. In men, it stimulates the testes to manufacture testosterone. Supply is reported with HCPCS Level II code J0725. May be sold under the brand names Chorex, Choron, Gonic, Novarel, Ovidrel, Pregnyl, Profasi.  

**hormone.** Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).  

**hypogonadism.** Malfunction within the reproductive gland inhibiting the capacity to produce hormones.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>220</td>
<td>Benign neoplasm of ovary — (Use additional code to identify any functional activity: 256.0-256.1)</td>
</tr>
<tr>
<td>222.0</td>
<td>Benign neoplasm of testis — (Use additional code to identify any functional activity)</td>
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<tr>
<td>235.2</td>
<td>Panhypopituitarism</td>
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<tr>
<td>236.39</td>
<td>Other ovarian failure — (Use additional code for states associated with natural menopause: 627.2)</td>
</tr>
<tr>
<td>254.4</td>
<td>Polycystic ovaries</td>
</tr>
<tr>
<td>257.2</td>
<td>Other testicular hypofunction</td>
</tr>
<tr>
<td>259.1</td>
<td>Precocious sexual development and puberty, not elsewhere classified</td>
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<tr>
<td>302.72</td>
<td>Psychosexual dysfunction with inhibited sexual excitement</td>
</tr>
<tr>
<td>607.84</td>
<td>Impotence of organic origin</td>
</tr>
<tr>
<td>626.0</td>
<td>Absence of menstruation</td>
</tr>
<tr>
<td>627.2</td>
<td>Symptomatic menopausal or female climacteric states</td>
</tr>
<tr>
<td>627.4</td>
<td>Symptomatic states associated with artificial menopause</td>
</tr>
<tr>
<td>628.0</td>
<td>Female infertility associated with anovulation — (Use additional code for any associated Stein-Leventhal syndrome: 256.4)</td>
</tr>
<tr>
<td>704.1</td>
<td>Hirsutism</td>
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<tr>
<td>752.7</td>
<td>Indeterminate sex and pseudohermaphroditism</td>
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<tr>
<td>758.6</td>
<td>Gonadal dysgenesis — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
</tr>
<tr>
<td>758.7</td>
<td>Klinefelter's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.  

**CCI Version 20.0**

80500-80502  
Also not with 80414: 80415, 84403  
Also not with 80415: 82670  
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Combined rapid anterior pituitary evaluation panel

**Explanation**
This series of tests may also be ordered as a pituitary panel and many large facilities will have an internal code name for this panel. This is a complex panel with numerous tests. Facilities with proper capabilities can offer a rapid, combined series where stimulation agents (i.e., insulin, thyrotropin-releasing hormone, and luteinizing hormone-releasing hormone) are administered simultaneously on a single day. This panel may be used most often for a suspected pituitary tumor. See individual code listings for specifics about portions of the panel.

**Coding Tips**
This panel must include the following: adrenocorticotropic hormone (ACTH) (82024 x 4), luteinizing hormone (LH) (83002 x 4), follicle stimulating hormone (FSH) (83001 x 4), prolactin (84146 x 4), human growth hormone (HGH) (83003 x 4), and cortisol (82533 x 4). Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**
- 194.3 Malignant neoplasm of pituitary gland and craniopharyngeal duct
- 198.89 Secondary malignant neoplasm of other specified sites
- 227.3 Benign neoplasm of pituitary gland and craniopharyngeal duct (pouch) — (Use additional code to identify any functional activity)
- 234.8 Carcinoma in situ of other specified sites
- 237.0 Neoplasm of uncertain behavior of pituitary gland and craniopharyngeal duct — (Use additional code to identify any functional activity)
- 239.7 Neoplasm of unspecified nature of endocrine glands and other parts of nervous system

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

<table>
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<tr>
<th>Work Value</th>
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Dexamethasone suppression panel, 48 hour

Explanation
Baseline samples are usually drawn. Dexamethasone is the suppression agent and it is usually administered orally at night. The next morning a fasting blood sample is drawn and rendered to serum. The cortisol level is measured as described in 82533. The free cortisol is a urine test as described in 82530. This panel is a 48-hour work up to differentiate diagnoses, such as Cushing's syndrome from alcoholism, obesity, and depression.

Coding Tips
Many payers consider the use of this test for the diagnosis and management of depression, borderline personality, and post-traumatic stress syndrome to be experimental and investigational. Some carriers may provide benefits for this test, subject to individual consideration, if it is requested by a psychiatrist to differentiate psychotic depression from schizophrenia. Studies demonstrate individuals with psychotic depression fail to suppress cortisol after the dexamethasone challenge, whereas those with schizophrenia demonstrate suppression. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
schizophrenia. Fundamental disturbance of personality and characteristic distortion of thinking, often a sense of being controlled by alien forces, delusions, disturbed perception, abnormal affect out of keeping with the real situation, and auditory or visual hallucinations with fear that intimate thoughts, feelings, and acts are known by others although clear consciousness and intellectual capacity are usually maintained.

ICD-9-CM Diagnostic Codes
255.0 Cushing's syndrome — (Use additional E code to identify cause, if drug-induced)
291.0 Alcohol withdrawal delirium
291.1 Alcohol-induced persisting amnestic disorder
291.2 Alcohol-induced persisting dementia
291.3 Alcohol-induced psychotic disorder with hallucinations
291.4 Idiosyncratic alcohol intoxication
291.5 Alcohol-induced psychotic disorder with delusions
291.81 Alcohol withdrawal
291.82 Alcohol induced sleep disorders
291.89 Other specified alcohol-induced mental disorders
291.9 Unspecified alcohol-induced mental disorders
303.01 Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.02 Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.03 Acute alcoholic intoxication, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.90 Other and unspecified alcohol dependence, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.91 Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.92 Other and unspecified alcohol dependence, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.93 Other and unspecified alcohol dependence, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 311.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
962.0 Poisoning by adrenal cortical steroids — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81050, 82530, 82533
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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80422-80424

**Glucagon tolerance panel; for insulinoma**
80422

**for pheochromocytoma**
80424

**Explanation**
Arginine is a powerful stimulator of glucagon in healthy patients and may be administered as the stimulating agent for this panel. Baseline blood work is typically performed prior to stimulating glucagon. This glucagon tolerance panel tests for insulinoma, a type of benign tumor of cells in the islets of Langerhans portion of the pancreas. Insulinoma is a prime cause of the condition known as hypoglycemia. Glucagon is a hormone secreted in the pancreas in response to hypoglycemic conditions. Abnormally high levels of glucagon have been linked to pheochromocytomas. The panel includes a test for fractionated catecholamines, as described by 82384. Code 80424 further differentiates a diagnosis of adrenal tumor from hypothymia and hypertension.

**Coding Tips**
Panel 80422 must include the following: glucose (82947 x 3) and insulin (83525 x 3). Panel 80424 must include catecholamines, fractionated (82384 x 2). Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96362-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
*Insulinoma.* Tumor of the pancreas that secretes insulin.

*Pheochromocytoma.* Neuroendocrine tumor of the adrenal glands that secretes high amounts of catecholamines.

**ICD-9-CM Diagnostic Codes**

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<td>Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)</td>
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<td>194.0</td>
<td>Malignant neoplasm of adrenal gland</td>
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<td>211.6</td>
<td>Benign neoplasm of pancreas, except islets of Langerhans</td>
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<td>211.7</td>
<td>Benign neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)</td>
</tr>
<tr>
<td>227.0</td>
<td>Benign neoplasm of adrenal gland — (Use additional code to identify any functional activity)</td>
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<tr>
<td>251.0</td>
<td>Hypoglycemic coma — (Use additional E code to identify drug, if drug induced)</td>
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80426
Gonadotropin releasing hormone stimulation panel

Explanation
This panel may be ordered as a GnRH "Stim." The panel tests for a variety of disorders, including pituitary disorders and premature sexual development in children. Baseline blood work is usually drawn. The gonadotropin-releasing hormone (GnRH) is typically administered by intravenous bolus. The peak response for follicle stimulating hormone (FSH) will be somewhat different than for luteinizing hormone (LH). Blood is often drawn at 30 minutes, 60 minutes, and 120 minutes.

Coding Tips
According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
adrenogenital disorders. Congenital or acquired disorders of the genitals due to adrenal dysfunction.
gonadotropin releasing hormone. Trophic peptide hormone released from the hypothalamus responsible for the release of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) from the anterior pituitary.

Synonym(s): GnRH.

ICD-9-CM Diagnostic Codes
253.1 Other and unspecified anterior pituitary hyperfunction
255.2 Adrenogenital disorders
259.1 Precocious sexual development and puberty, not elsewhere classified
259.8 Other specified endocrine disorders

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
ICD-9-CM Diagnostic Codes

253.3 Pituitary dwarfism
585.9 Chronic kidney disease, unspecified — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify hypertension status, if applicable: 403.00-403.91, 404.00-404.93)
758.6 Gonadal dysgenesis — (Use additional codes for conditions associated with the chromosomal anomalies)
759.81 Prader-Willi syndrome
764.00 Light-for-dates without mention of fetal malnutrition, unspecified (weight) — (Use additional code(s) to further specify condition)
764.01 Light-for-dates without mention of fetal malnutrition, less than 500 grams — (Use additional code(s) to further specify condition)
764.02 Light-for-dates without mention of fetal malnutrition, 500-749 grams — (Use additional code(s) to further specify condition)
764.03 Light-for-dates without mention of fetal malnutrition, 750-999 grams — (Use additional code(s) to further specify condition)
764.04 Light-for-dates without mention of fetal malnutrition, 1,000-1,249 grams — (Use additional code(s) to further specify condition)
764.05 Light-for-dates without mention of fetal malnutrition, 1,250-1,499 grams — (Use additional code(s) to further specify condition)
764.06 Light-for-dates without mention of fetal malnutrition, 1,500-1,749 grams — (Use additional code(s) to further specify condition)
764.07 Light-for-dates without mention of fetal malnutrition, 1,750-1,999 grams — (Use additional code(s) to further specify condition)
764.08 Light-for-dates without mention of fetal malnutrition, 2,000-2,499 grams — (Use additional code(s) to further specify condition)
764.09 Unspecified fetal growth retardation, unspecified (weight) — (Use additional code(s) to further specify condition)
764.10 Unspecified fetal growth retardation, less than 500 grams — (Use additional code(s) to further specify condition)
764.11 Unspecified fetal growth retardation, 500-749 grams — (Use additional code(s) to further specify condition)
764.12 Unspecified fetal growth retardation, 750-999 grams — (Use additional code(s) to further specify condition)
764.13 Unspecified fetal growth retardation, 1,000-1,249 grams — (Use additional code(s) to further specify condition)
764.14 Unspecified fetal growth retardation, 1,250-1,499 grams — (Use additional code(s) to further specify condition)
764.15 Unspecified fetal growth retardation, 1,500-1,749 grams — (Use additional code(s) to further specify condition)
764.16 Unspecified fetal growth retardation, 1,750-1,999 grams — (Use additional code(s) to further specify condition)
764.17 Unspecified fetal growth retardation, 2,000-2,499 grams — (Use additional code(s) to further specify condition)
783.43 Short stature

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

80500-80502, 83003
Also not with 80430: 82947

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Coding and Payment Guide for Laboratory Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>80428-80430</td>
<td><strong>Growth hormone stimulation panel</strong> (e.g., arginine infusion, I-dopa administration)</td>
</tr>
<tr>
<td>80428</td>
<td>Growth hormone stimulation panel (e.g., arginine infusion, I-dopa administration)</td>
</tr>
<tr>
<td>80430</td>
<td>Growth hormone suppression panel (glucose administration)</td>
</tr>
</tbody>
</table>

**Explanation**

Code 80428 may be ordered as a GH provocation test, insulin tolerance test (ITT), and as the Arginine test. Code 80430 may be ordered as a GH suppression test. Blood work is typically drawn before these tests as a baseline. For 80428, stimulation of growth hormone is often achieved through an intravenous infusion of arginine hydrochloride, L-dopa, or clonidine administered over approximately 30 minutes. Blood specimens are collected at 15, 30, and 45 minutes. In 80430, glucose is the suppression agent and administration may be oral. Blood is again drawn, often at 60 and 120 minutes for glucose. These studies may be performed with one more specimen drawn for HCG.

**Coding Tips**

According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. Venipuncture is separately reportable. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report the administration of the evocative/suppression agent (i.e., 96365-96376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36415.
ICD-9-CM Diagnostic Codes

042  Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
194.3  Malignant neoplasm of pituitary gland and craniopharyngeal duct
227.3  Benign neoplasm of pituitary gland and craniopharyngeal duct (pouch) — (Use additional code to identify any functional activity)
244.0  Postoperative hypothyroidism
244.2  Iodine hypothyroidism — (Use additional E code to identify drug)

Procedure Codes

80438-80440
80438  Thyrotropin releasing hormone (TRH) stimulation panel; 1 hour
80439  2 hour
80440  for hyperprolactinemia

Explanations

Codes 80438 and 80439 are also known as TRH test or thyrotropin releasing factor (TRF) test. The thyrotropin-releasing hormone is typically administered by IV bolus shortly after collecting a sample to baseline for thyroid stimulating hormone. Report 80438 for a one-hour version of the test and 80439 for a two-hour version. Either test is useful in testing the anterior pituitary gland's ability to secrete TSH (normal response is for a rise in secretion following administration of TRH). Code 80440 may be called prolactin stimulation after TRH or simply prolactin "Stim." Baseline blood work is performed before administration of thyrotropin releasing hormone. IV usually administers the TRH and blood is again drawn at 15 minutes and 30 minutes. The test is for hyperprolactinemia, or high levels of prolactin in the blood. This condition is sometimes linked to renal, thyroid, or liver problems.

Coding Tips

According to CPT guidelines, if the minimum number of tests (for that analyte) described in a panel is not performed, do not use the panel code from the 80400-80440 series. Instead, list the individual tests performed. Separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report to report the administration of the evocative/suppression agent (i.e., 96365-6376) when appropriate. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36415. When venipuncture is performed, separately report supplies, drugs, and physician E/M as applicable. Use the appropriate code to report the administration of the evocative/suppression agent (i.e., 96365–6376) when appropriate. Use additional code(s) to identify all manifestations of HIV. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93

ICD-9-CM Diagnostic Codes

253.7  Iatrogenic pituitary disorders — (Use additional E code to identify cause)
585.1  Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.2  Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.3  Chronic kidney disease, Stage III (moderate) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.4  Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertension chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.5  Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.6  End stage renal disease — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertension chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
758.6  Gonadal dysgenesis — (Use additional codes for conditions associated with the chromosomal anomalies)
759.81  Prader-Willi syndrome

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

Also not with 80438: 80439-80502, 84443
Also not with 80439: 80500-80502, 84443
Also not with 80440: 80439, 80500-80502, 84146
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

0.00  0.00  0.00  0.00  0.00  0.00
0.00  0.00  0.00  0.00  0.00  0.00
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Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, with microscopy

automated, with microscopy

non-automated, without microscopy

automated, without microscopy

Explanation

These types of tests may be ordered by the brand name product and the analytes tested. Although screens are considered to show the presence of an analyte (qualitative), some newer products are semi-quantitative. Many are plastic strips that contain sites impregnated with chemicals that react with urine when the strip is dipped into a specimen. The result is a color change that is compared against a standardized chart. Most strips will test for numerous analytes, as well as for pH and specific gravity. Tablets work in a similar fashion. A drop of urine is placed on the tablet and a chemical reaction causes a color change that is compared to a standard chart. Usually only a single analyte is under consideration, per tablet. Microscopy involves examination of the urine sediments or solids. The urine is first centrifuged in a graduated tube to concentrate the sediments. Samples (either wet or dry) are examined, usually under both high and low power, and abnormal constituents are noted. These may include a wide range of biological abnormalities, such as blood cells, casts, and bacteria, as well as chemical anomalies, such as crystals. Code 81000 involves a manual (nonautomated) test and includes a microscopic examination of sediments. Code 81002 is also performed manually but does not include any microscopic examination of the urine or its components. When the test is performed using an automated methodology a reagent strip is exposed to the urine sample and is mechanically fed through a processor that reads the colors emitted by the reaction. The unit will be calibrated according to international standards and readings have a high degree of accuracy. The result may be displayed on a monitor, but is always printed or recorded in some form. Code 81001 includes microscopy. Code 81003 does not include a microscopic examination of the urine sample or components.

Coding Tips

Codes 81002 and 81003 may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA waived test. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know

CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

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<th>Work Value</th>
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<th>Fac PE</th>
<th>Malpractice</th>
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</table>
81005

Urinalysis; qualitative or semiquantitative, except immunoassays

Explanation
This test may be ordered by the type of processor used and the analytes
under examination. The method will be any type of automated analyzer,
usually colorimetry. The results of a semi-quantitative test indicate the
presence or absence of an analyte and may be expressed as simply
positive or negative. A qualitative result may be indicated as trace, 1+, 2+,
etc.

Coding Tips
See code 83518 for immunoassay. For reagent strip using
nonimmunoassay methodology, see code 81000 (with microscopy) or
81002 (without microscopy).

Terms To Know
qualitative. To determine the nature of the component of substance.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic
examination, and diagnosis.

ICD-9-CM Diagnostic Codes
099.40  Unspecified nongonococcal urethritis (NGU)
099.41  Nongonococcal urethritis (NGU) due to Chlamydia
        trachomatis
099.49  Nongonococcal urethritis (NGU) due to other specified
        organism
590.80  Unspecified pyelonephritis — (Use additional code to
        identify organism, such as E. coli, 041.41-041.49)
590.81  Pyelitis or pyelonephritis in diseases classified elsewhere —
        (Use additional code to identify organism, such as E. coli,
        041.41-041.49. Code first underlying disease: 016.0)
592.0   Calculus of kidney
592.1   Calculus of ureter
593.71  Vesicoureteral reflux with reflux nephropathy, unilateral
593.72  Vesicoureteral reflux with reflux nephropathy, bilateral
593.73  Vesicoureteral reflux with reflux nephropathy, NOS
593.81  Vascular disorders of kidney
593.82  Ureteral fistula
593.89  Other specified disorder of kidney and ureter
593.9   Unspecified disorder of kidney and ureter
594.0   Calculus in diverticulum of bladder
594.1   Other calculus in bladder
594.2   Calculus in urethra
594.8   Other lower urinary tract calculus
594.9   Unspecified calculus of lower urinary tract
595.0   Acute cystitis — (Use additional code to identify organism,
        such as E. coli: 041.41-041.49)
595.1   Chronic interstitial cystitis — (Use additional code to
        identify organism, such as E. coli: 041.41-041.49)
595.2   Other chronic cystitis — (Use additional code to identify
        organism, such as E. coli: 041.41-041.49)
595.3   Trigonitis — (Use additional code to identify organism,
        such as E. coli: 041.41-041.49)
595.4   Cystitis in diseases classified elsewhere — (Use additional
        code to identify organism, such as E. coli: 041.41-041.49.
        Code first underlying disease: 006.8, 039.8, 120.0-120.9,
        122.3, 122.6)
595.89  Other specified types of cystitis — (Use additional code to
        identify organism, such as E. coli: 041.41-041.49)
599.0   Urinary tract infection, site not specified — (Use additional
        code to identify organism, such as E. coli: 041.41-041.49)
599.70  Hematuria, unspecified
599.71  Gross hematuria
599.72  Microscopic hematuria
601.0   Acute prostatitis — (Use additional code to identify
        organism: 041.0, 041.1)
625.0   Dyspareunia
This list of ICD-9-CM codes might not be all-inclusive. Please refer to
your Laboratory Cross Coder to determine if other diagnoses are
applicable.

CCI Version 20.0
81000, 81002-81003*, 81007*, 81015*
Note: These CCI edits are used for Medicare. Other payers may
reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
<th>Fac Total</th>
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</tr>
</tbody>
</table>
Urinalysis; bacteriuria screen, except by culture or dipstick

Explanation
This type of test may be ordered by the brand name of the commercial kit used and the bacteria that the kit screens for. Human urine is normally free of bacteria. However, bacteria can easily be introduced upon voiding. In addition, specimens containing any amount of pathological bacteria can have the organisms rapidly multiply after collection. For this reason, specimens are often examined shortly after collection. Method includes any method except culture or dipstick. The test is often performed by commercial kit. The type of kit used should be specified in the report.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA waived test. See appendix 1 for CLIA-waived kits and test systems. To report dipstick urinalysis, consult CPT code 81000 or 81002. To report urine culture, consult CPT codes 87086–87088.

Terms To Know
bacteriuria. Bacteria in the urine. The presence of large amounts may be a sign of infection in the urinary tract.

CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

ICD-9-CM Diagnostic Codes
590.01 Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)
590.10 Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.11 Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.80 Unspecified pyelonephritis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.81 Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0)
590.9 Unspecified infection of kidney — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
594.1 Other calculus in bladder
595.0 Acute cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
595.1 Chronic interstitial cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
595.2 Other chronic cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
597.0 Urethral abscess
597.80 Unspecified urethritis
597.81 Urethral syndrome NOS
597.89 Other urethritis
598.00 Urethral stricture due to unspecified infection — (Use additional code to identify urinary incontinence: 625.6, 788.30-788.39)
599.70 Hematuria, unspecified
599.71 Gross hematuria
599.72 Microscopic hematuria
601.0 Acute prostatitis — (Use additional code to identify organism: 041.0, 041.1)
601.1 Chronic prostatitis — (Use additional code to identify organism: 041.0, 041.1)
601.2 Abscess of prostate — (Use additional code to identify organism: 041.0, 041.1)
790.93 Elevated prostate specific antigen (PSA)
791.0 Proteinuria
791.7 Other cells and casts in urine
791.9 Other nonspecific finding on examination of urine

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
81000#, 81015#, 87086, 87088
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Urinalysis; microscopic only

Explanation
This test may be ordered as a microscopic analysis. Human urine is normally free of bacteria. However, bacteria can easily be introduced upon voiding. In addition, specimens containing any amount of pathological bacteria can have the organisms rapidly multiply after collection. For this reason, specimens are often examined shortly after collection. The sample may first be centrifuged into a graduated tube to concentrate the sediments, or solid matter, held in suspension. The concentration of bacteria as well as cell types, crystals, and other elements seen is reported.

Coding Tips
This code may not be reported separately on a claim that includes CPT code 81002 or 81003. For urinalysis with microscopic exam, report CPT code 81000 or 81001.

Terms To Know
bacteriuria. Bacteria in the urine. The presence of large amounts may be a sign of infection in the urinary tract.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
590.01 Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)
590.10 Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.11 Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.80 Unspecified pyelonephritis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.81 Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0)
590.9 Unspecified infection of kidney — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
594.1 Other calculus in bladder
595.0 Acute cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
595.1 Chronic interstitial cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
595.2 Other chronic cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
This test may be ordered as a two-glass or three-glass test, a MacConkey-blood agar test, an MC-blood agar test, or any of the previous with a gram-positive plate. This is a culture for bacteria and will typically involve a culture plate of 5 percent sheep’s blood agar and a MacConkey plate (a medium containing differentiate for lactose and nonlactose fermenters). A third plate of gram-positive media may offer further discrimination of bacteria cultured. The test is useful in determining the types and prevalence of bacteria in the urine.

Coding Tips
If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
bacteriuria. Bacteria in the urine. The presence of large amounts may be a sign of infection in the urinary tract.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>590.01</td>
<td>Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)</td>
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<tr>
<td>590.10</td>
<td>Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)</td>
</tr>
<tr>
<td>590.11</td>
<td>Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)</td>
</tr>
<tr>
<td>590.80</td>
<td>Unspecified pyelonephritis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)</td>
</tr>
<tr>
<td>590.81</td>
<td>Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0)</td>
</tr>
<tr>
<td>590.9</td>
<td>Unspecified infection of kidney — (Use additional code to identify organism, such as E. coli, 041.41-041.49)</td>
</tr>
<tr>
<td>594.1</td>
<td>Other calculus in bladder</td>
</tr>
<tr>
<td>595.0</td>
<td>Acute cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
</tr>
<tr>
<td>595.1</td>
<td>Chronic interstitial cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
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81025
81025 Urine pregnancy test, by visual color comparison methods

Explanation
This test may be ordered by any of the brand name kits available. The tests typically involve a dipstick impregnated with reagents that chemically react upon contact with urine. A change in color indicates positive or negative for the presence of hormones found in the urine of women in early pregnancy.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA waived test. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).

pregnancy. Conception until the birth of a child, usually 40 weeks.

ICD-9-CM Diagnostic Codes
626.0 Absence of menstruation
V72.40 Pregnancy examination or test, pregnancy unconfirmed — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V72.41 Pregnancy examination or test, negative result — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V72.42 Pregnancy examination or test, positive result — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
No CCI Edits apply to this code.
81050

81050  Volume measurement for timed collection, each

**Explanation**

This test may be ordered as simply a volume measurement, a flow study, uroflowmetry, or urodynamic study. Timed collections are typically collected over a given period (24 hours is common). This test may be performed as a preliminary study to determine the volume of urine voided per second. A flowmeter device may be used or a simple timing of the flow into a graduated container may be employed. The test is sometimes also administered as a baseline or otherwise in conjunction with urinary tract procedures that might affect flow.

**Coding Tips**

Report urine volume measurement when performed in association with 24-hour urine chemistry or other timed collections except the creatinine clearance. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**

**583.0**  Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis

**583.1**  Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis

**583.2**  Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis

**583.3**  Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis

**583.4**  Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis

**583.5**  Acute kidney failure with lesion of tubular necrosis

**583.6**  Acute kidney failure with lesion of tubular necrosis

**583.7**  Acute kidney failure with lesion of renal cortical necrosis

**583.8**  Acute kidney failure with other specified pathological lesion in kidney

**583.9**  Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.0**  Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.1**  Chronic kidney disease, Stage III (moderate) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.2**  Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.3**  Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.4**  Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**584.5**  End stage renal disease — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**590.00**  Chronic pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)

**590.01**  Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)

**590.10**  Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)

**590.11**  Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)

**590.2**  Renal and perinephric abscess — (Use additional code to identify organism, such as E. coli, 041.41-041.49)

**590.3**  Pyeloureteritis cystica — (Use additional code to identify organism, such as E. coli, 041.41-041.49)

**590.81**  Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.

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81200
81200  ASPA (aspartoacylase) (eg, Canavan disease) gene analysis, common variants (eg, E285A, Y231X)

Explanation
This test may be requested as ASPA genetic analysis, CANW, or Canavan disease mutation analysis. Specimen is whole blood. Methodology is multiplex PCR amplification. This is a blood test that screens for the missing enzyme aspartoacylase or for mutations in the gene that controls aspartoacylase. A mutation of the gene for the enzyme aspartoacylase results in Canavan disease, a common gene-linked birth disorder manifesting as cerebral degeneration during infancy. Canavan disease occurs in any ethnic group; however, it is more prevalent among Ashkenazi Jews from eastern Poland, Lithuania, and western Russia, and Saudi Arabsians. Both parents must be carriers of the Canavan gene mutation, and there is a one in four (25 percent) chance with each pregnancy that the child will be affected.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
Canavan disease. Genetic disorder of the nervous system causing degeneration of the brain due to errors in development of the myelin sheath. Canavan disease is reported with ICD-9-CM code 330.0.

common variants. Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.

gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.

ICD-9-CM Diagnostic Codes
330.0  Leukodystrophy — (Use additional code to identify associated intellectual disabilities)
V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V28.0  Screening for chromosomal anomalies by amniocentesis

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**81201-81203**

81201  APC (adenomatous polyposis coli) (eg, familial adenomatosis polyposis [FAP], attenuated FAP) gene analysis; full gene sequence

81202  APC (adenomatous polyposis coli) (eg, familial adenomatosis polyposis [FAP], attenuated FAP) gene analysis; known familial variants
duplication/deletion variants

81203  Explanation
This test may be requested as APC (adenomatous polyposis coli), familial adenomatosis polyposis (FAP), or attenuated FAP analysis. Specimen is peripheral blood leukocytes. Methodology is bi-directional sequence analysis and/or multiplex ligation-dependent probe amplification (MLPA). A normal APC gene produces a protein that prevents polyps and tumors from forming. When this gene is mutated, the protein no longer is effective and polyps develop. This test screens for mutations in the APC gene that cause polyposis conditions such as FAP, colon cancer predisposition, Gardner syndrome, and Turcot syndrome. Report 81201 when the full gene sequence is analyzed. Report 81202 for the analysis of known familial variants only. Report 81203 if only the duplication/deletion variants are analyzed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
common variants. Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.

ICD-9-CM Diagnostic Codes
211.3 Benign neoplasm of colon
V84.09 Genetic susceptibility to other malignant neoplasm — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable,

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CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81201: 81202-81203
Also not with 81202: 81203
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81205

**Explanation**
This test may be ordered as BCKDHB analysis, MSUD gene analysis, or maple syrup disease analysis. Specimen is whole blood. Methodology is multiplex PCR amplification. Maple syrup urine disease is an inherited disease in which some amino acids are not processed by the body. A symptom of the disease is a distinct sweet odor of the urine of affected infants, thus the name of the disease.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed append modifier 26 Professional component, to the code. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
- **amino acid.** One of the building blocks of protein that contains a basic amino (NH2), an acidic carboxyl (COOH), and a variable side chain (R) attached to an alpha carbon atom.
- **common variants.** Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.
- **gene.** Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

**ICD-9-CM Diagnostic Codes**
- 270.3 Disturbances of branched-chain amino-acid metabolism
- V26.31 Testing of female for genetic disease carrier status
- V26.34 Testing of male for genetic disease carrier status
- V28.0 Screening for chromosomal anomalies by amniocentesis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
- 84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81206-81208
81206  BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis; major breakpoint, qualitative or quantitative
81207  BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis; minor breakpoint, qualitative or quantitative
81208  other breakpoint, qualitative or quantitative

Explanation
This test may be ordered as a MBCR. Specimen is whole blood or bone marrow. Methodology is FISH (fluorescence in situ hybridization). This test is used to detect the location of an abnormality within chromosome 22 that causes the BCR gene to “break” and reattach to the ABL (chromosome 9) gene. This abnormality is called the Philadelphia or Ph chromosome. The Ph chromosome is a cause of acute and chronic myeloid leukemia and acute lymphoblastic leukemia. Report 81206 when the major breakpoint is determined; code 81207 when the minor breakpoint is determined, and 81208 when other breakpoints are determined.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code 0452.

Terms To Know
breakpoint. Point at which a chromosome breaks.

ICD-9-CM Diagnostic Codes
204.00  Acute lymphoid leukemia, without mention of having achieved remission
204.01  Acute lymphoid leukemia in remission
204.02  Acute lymphoid leukemia, in relapse
204.90  Unspecified lymphoid leukemia, without mention of having achieved remission
204.91  Unspecified lymphoid leukemia in remission
204.92  Unspecified lymphoid leukemia, in relapse
205.00  Acute myeloid leukemia, without mention of having achieved remission
205.01  Acute myeloid leukemia in remission
205.02  Acute myeloid leukemia, in relapse
205.10  Chronic myeloid leukemia, without mention of having achieved remission
205.11  Chronic myeloid leukemia in remission
205.12  Chronic myeloid leukemia, in relapse
205.20  Subacute myeloid leukemia, without mention of having achieved remission
205.21  Subacute myeloid leukemia in remission
205.22  Subacute myeloid leukemia, in relapse
205.30  Myeloid sarcoma, without mention of having achieved remission
205.31  Myeloid sarcoma in remission
205.32  Myeloid sarcoma, in relapse
205.80  Other myeloid leukemia, without mention of having achieved remission
205.81  Other myeloid leukemia in remission
205.82  Other myeloid leukemia, in relapse
205.90  Unspecified myeloid leukemia, without mention of having achieved remission
205.91  Unspecified myeloid leukemia in remission
205.92  Unspecified myeloid leukemia, in relapse

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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ICD-9-CM Diagnostic Codes

764.90 Light-for-dates without mention of fetal malnutrition, unspecified (weight) — (Use additional code(s) to further specify condition)
764.91 Light-for-dates without mention of fetal malnutrition, less than 500 grams — (Use additional code(s) to further specify condition)
764.92 Light-for-dates without mention of fetal malnutrition, 500-749 grams — (Use additional code(s) to further specify condition)
764.93 Light-for-dates without mention of fetal malnutrition, 750-999 grams — (Use additional code(s) to further specify condition)
764.94 Light-for-dates without mention of fetal malnutrition, 1,000-1,249 grams — (Use additional code(s) to further specify condition)
764.95 Light-for-dates without mention of fetal malnutrition, 1,250-1,499 grams — (Use additional code(s) to further specify condition)
764.96 Light-for-dates without mention of fetal malnutrition, 1,500-1,749 grams — (Use additional code(s) to further specify condition)
764.97 Light-for-dates without mention of fetal malnutrition, 1,750-1,999 grams — (Use additional code(s) to further specify condition)
764.98 Light-for-dates without mention of fetal malnutrition, 2,000-2,499 grams — (Use additional code(s) to further specify condition)
764.99 Light-for-dates without mention of fetal malnutrition, 2,500 or more grams — (Use additional code(s) to further specify condition)
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V28.0 Screening for chromosomal anomalies by amniocentesis
V82.79 Other genetic screening

81209

Explanation
This test may be ordered as a Bloom syndrome analysis. Specimen is whole blood, chorionic villi, or amniotic fluid. Methodology is multiplex PCR amplification. Bloom syndrome causes growth problems, immune deficiencies, and places the patient at high risk for all types of cancer. It is the result of mutations of the BLM gene.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Bloom (-Machacek) (-Torre) syndrome. Butterfly-shaped lesions on the face and hands, dolichocephalic skull and narrow face, and dwarfism with normal body proportions. Report this disorder with ICD-9-CM code 757.39.

ICD-9-CM Diagnostic Codes

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CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
BRAF (v-raf murine sarcoma viral oncogene homolog B1) (eg, colon cancer), gene analysis, V600E variant

Explanation
Specimen is normal/tumor colon tissue. Methodology is PCR-based assay. This test is performed to detect the presence of the V600E mutation within the BRAF gene and is used to assist in distinguishing somatic versus germline event in patients being treated for colon cancer.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. Microdissection, when performed, may be reported separately using 88380-88381 as appropriate. When only the interpretation is performed, append modifier 26 Professional component, to the code. This code is invalid for Medicare claims. Report the appropriate codes from the 81200-81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
assay. Test of purity.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
microdissection. Dissection of tissue using a microscope.
PCR. Polymerase chain reaction.
variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
153.0       Malignant neoplasm of hepatic flexure
153.1       Malignant neoplasm of transverse colon
153.2       Malignant neoplasm of descending colon
153.3       Malignant neoplasm of sigmoid colon
153.4       Malignant neoplasm of cecum
153.5       Malignant neoplasm of appendix
153.6       Malignant neoplasm of ascending colon
153.7       Malignant neoplasm of splenic flexure
153.8       Malignant neoplasm of other specified sites of large intestine
153.9       Malignant neoplasm of colon, unspecified site
154.0       Malignant neoplasm of rectosigmoid junction
V82.79       Other genetic screening

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants in BRCA1 (ie, exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510bp, exon 8-9 del 7.1kb)

BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; 185delAG, 5385insC, 6174delT variants

uncommon duplication/deletion variants

Explanation

BRCA1 and BRCA2 genes are a class of genes that are known as tumor suppressors. Mutations to the BRCA1 and BRCA2 gene have been linked to hereditary breast and ovarian cancers. Specimen is blood. These tests are performed to determine what, if any, mutations have affected the BRCA1 and BRCA2 genes. Code selection is dependent on the type of mutation being tested for.

Coding Tips

These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. When testing is performed on BRCA 1 only, see codes 81214-81215; for BRCA2 gene only, see 81216-81217. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other certified phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

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<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.9</td>
<td>Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<tr>
<td>V84.01</td>
<td>Genetic susceptibility to malignant neoplasm of breast — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable, any current malignant neoplasms: 140.0-195.8, 200.0-208.9, 230.0-234.9. Use additional code, if applicable, for any personal history of malignant neoplasm: V10.0-V10.9)</td>
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<td>V84.02</td>
<td>Genetic susceptibility to malignant neoplasm of ovary — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable, any current malignant neoplasms: 140.0-195.8, 200.0-208.9, 230.0-234.9. Use additional code, if applicable, for any personal history of malignant neoplasm: V10.0-V10.9)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**81214-81215**

**81214**  
BRCA1 (breast cancer 1) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants (ie, exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510bp, exon 8-9 del 7.1kb)

**81215**  
BRCA1 (breast cancer 1) (eg, hereditary breast and ovarian cancer) gene analysis; known familial variant

**Explanation**  
BRCA1 is a gene within a class of genes that are known as tumor suppressors. Mutations to the BRCA1 gene have been linked to hereditary breast and ovarian cancers. Specimen is blood. This test is performed to determine what, if any, mutations have affected the BRCA1 gene. Code selection is dependent on the type of mutation being tested for.

**Coding Tips**  
All analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included. When only the interpretation is performed append, modifier 26 Professional component, to the code. When both BRCA1 and BRCA2 gene testing is performed, see 81211-81213. When BRCA2 gene testing is performed, see 81216-81217. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36410. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**  
exon. One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.

**ICD-9-CM Diagnostic Codes**

| Code | Description | Value
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BRCA2 (breast cancer 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis

**Explanation**
BRCA2 is a gene within a class of genes that are known as tumor suppressors. Mutations to the BRCA2 gene have been linked to hereditary breast and ovarian cancers. Specimen is blood. This test is performed to determine what, if any, mutations have affected the BRCA2 gene. Code selection is dependent on the type of mutation being tested for.

**Coding Tips**
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26, Professional component, to the code. When testing is performed on both the BCRA1 and BCRA2 genes, see codes 81211-81213. For testing on the BCRA1 gene only, see 81214-81215. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other licensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
*exon.* One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.

**ICD-9-CM Diagnostic Codes**

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81220-81221

**81220** CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; common variants (eg, ACMG/ACOG guidelines)

**81221** CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; known familial variants

**Explanation**
Specimen may be blood, amniotic fluid, or chorionic villus sample. Methodology is PCR sequencing or multiplex ligation dependent probe amplification (MLPA). Testing is performed to identify the specific gene mutation when a diagnosis of cystic fibrosis has been made. Code 81220 is used to report analysis for the more common variants of the CFTR gene mutations. Report 81221 for the familial mutation(s) only, which does not rule out the presence of other mutations within the CFTR gene. Report 81222 or 81223 for identification of mutations in individuals with atypical presentations of cystic fibrosis or when detection rates by targeted mutation analysis are low or unknown.

**Coding Tips**
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. When analysis is for full sequence analysis or known familial variants, see 81220-81221. When intron 8 poly-T analysis (male infertility analysis) only is performed, see 81224. When intron 8 poly T is performed with 81220, do not report 81224 separately. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
**common variants.** Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.

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81222-81223

81222  CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; duplication/deletion variants

81223  full gene sequence

Explanation
Specimen is whole blood. Methodology is PCR sequencing or multiplex ligation dependent probe amplification (MLPA). Mutations to the CFTR gene found on chromosome 7 are numerous and therefore there is wide variability in clinical manifestation of cystic fibrosis. Report 81222 when analysis is performed for the identification of mutations in individuals with atypical presentations of cystic fibrosis or 81223 when full gene sequence analysis is performed. Full gene sequence analysis is usually performed when detection rates by targeted mutation analysis are low or unknown.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes

277.00  Cystic fibrosis without mention of meconium ileus — (Use additional code to identify any associated intellectual disabilities)

277.01  Cystic fibrosis with meconium ileus — (Use additional code to identify any associated intellectual disabilities)

277.02  Cystic fibrosis with pulmonary manifestations — (Use additional code to identify any associated intellectual disabilities.) (Use additional code to identify any infectious organism present, such as 041.7)

277.03  Cystic fibrosis with gastrointestinal manifestations — (Use additional code to identify any associated intellectual disabilities)

V26.31  Testing of female for genetic disease carrier status

V26.34  Testing of male for genetic disease carrier status

V28.0  Screening for chromosomal anomalies by amniocentesis

V83.81  Cystic fibrosis gene carrier

V84.89  Genetic susceptibility to other disease

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

84311, 88271-88275, 88291, 88365-88368

Also not with 81223: 81220-81222

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81224

81224  CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; intron 8 poly-T analysis (eg, male infertility)

Explanation
Specimen is blood. Methodology is PCR amplification of specific regions of the CFTR gene followed by probing of the amplified regions using oligonucleotide ligation assay. The frequency of CFTR gene mutations is increased among men with congenital bilateral absence of the vas deferens (CBAVD), indicating that CBAVD is a CFTR-associated disease with incomplete penetrance. Cases of obstructive azoospermia caused by CFTR gene mutations may be considered CF cases with incomplete expression. Approximately 70 percent of men with CBAVD have at least one CF mutation. In CBAVD patients with one CF mutation, 63 percent also have the 5T variant. The most common cause of the CBAVD phenotype is a combination of one CF mutation and the 5T variant present on opposite copies (trans) of the CFTR gene.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. When intron B poly-T analysis is performed at the same time as analysis for common variants, do not report this code separately. When performing full gene or known familial analysis, see 81222-81223.

Terms To Know
azoospermia. Failure of the development of sperm or the absence of sperm in semen; one of the most common factors in male infertility.
phenotype. Physical expression of a trait or characteristic as determined by an individual’s genetic makeup or genotype.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
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V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V28.0  Screening for chromosomal anomalies by amniocentesis
V83.81  Cystic fibrosis gene carrier
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.


Explanation
Specimen is whole blood. Methodology is PCR amplification followed by DNA sequence analysis and mutation detection with hybridization probes. These tests identify patients who are poor metabolizers or extensive metabolizers of drugs because of mutations to certain genes. This allows physicians to adjust drug levels, including non-conventional doses, or to select drugs that are not affected by the mutation. Report 81225 for CYP2C19, 81226 for CYP2D6, and 81227 for CYP2C9 gene analysis.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
common variants. Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.

gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
81228-81229

81228  Cytogenomic constitutional (genome-wide) microarray analysis; interrogation of genomic regions for copy number variants (eg, bacterial artificial chromosome [BAC] or oligo-based comparative genomic hybridization [CGH] microarray analysis)

81229  interrogation of genomic regions for copy number and single nucleotide polymorphism (SNP) variants for chromosomal abnormalities

**Explanation**

These tests may be ordered as aCGH, CGH, or CMA. Specimen is whole blood. Methodology is array comparative genomic hybridization. These tests are useful in identifying chromosomal abnormalities in patients with mental retardation, developmental delay, autism, dysmorphic features, or multiple congenital anomalies, particularly those patients with normal chromosome or FISH studies. The most common type of genetic variation occurs at the SNPs (pronounced “snips”). While most SNPs have no effect on a person’s health or normal development, some may help to predict a patient’s response to certain drugs and risk factors for developing certain diseases such as cancer, diabetes, and heart disease. Report 81229 when single nucleotide polymorphisms (SNP) are also interrogated.

**Coding Tips**

These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. This code is invalid for Medicare claims. Report the appropriate codes from the 81200–81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Do not report 81228 with 81229. Do not report 88271 when performing these types of services. Analyte-specific molecular pathology procedures should not be reported as they are included in the microarray analysis.). Report code for targeted analysis or unlisted molecular pathology (81405, 81479) when performing cytogenomic constitutional microarray analysis not genome-wide.

**Terms To Know**

*cytogenomic.* Chromosomal evaluation using molecular methods.

**single-nucleotide polymorphism (SNP).** Single nucleotide (A, T, C, or G that is different in a DNA sequence. This difference occurs at a significant frequency in the population.

**ICD-9-CM Diagnostic Codes**

299.00  Autistic disorder, current or active state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298.)

299.01  Autistic disorder, residual state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

315.2  Other specific developmental learning difficulties

315.5  Mixed development disorder

315.8  Other specified delay in development

315.9  Unspecified delay in development

783.40  Lack of normal physiological development, unspecified

V82.79  Other genetic screening

V82.89  Special screening for other specified conditions

V82.9  Screening for unspecified condition

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

81161-81227, 84311, 88271-88275, 88291, 88365-88368

Also not with 81228: 81229-81408

Also not with 81229: 81235-81408

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81235

81235  EGFR (epidermal growth factor receptor) (eg, non-small cell lung cancer) gene analysis, common variants (eg, exon 19 LREA deletion, L858R, T790M, G719A, G719S, L861Q)

**Explanation**
Specimen is a non-small cell lung cancer (NSCLC) tumor sample. Methodology is PCR amplification and bidirectional gene sequencing. These studies are used to determine gene mutations of epidermal growth factor receptor (EGFR). Patients that are positive for mutations of this gene generally respond well to tyrosine kinase inhibitors (TKI) treatment for the NSCLC.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
PCR. Polymerase chain reaction.

**ICD-9-CM Diagnostic Codes**
162.2  Malignant neoplasm of main bronchus
162.3  Malignant neoplasm of upper lobe, bronchus, or lung
162.4  Malignant neoplasm of middle lobe, bronchus, or lung
162.5  Malignant neoplasm of lower lobe, bronchus, or lung
162.8  Malignant neoplasm of other parts of bronchus or lung
162.9  Malignant neoplasm of bronchus and lung, unspecified site
231.2  Carcinoma in situ of bronchus and lung
V84.09  Genetic susceptibility to other malignant neoplasm — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable, any current malignant neoplasms: 140.0-195.8, 200.0-208.9, 230.0-234.9. Use additional code, if applicable, for any personal history of malignant neoplasm: V10.0-V10.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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81240-81241

81240  F2 (prothrombin, coagulation factor II) (eg, hereditary hypercoagulability) gene analysis, 20210G>A variant
81241  F5 (coagulation factor V) (eg, hereditary hypercoagulability) gene analysis, Leiden variant

Explanation
Specimen is whole blood. Methodology is direct mutation analysis. These studies are used to determine gene mutations that directly affect coagulation. Report 82140 to detect a prothrombin mutation 20210G>A (affecting coagulation factor II). Code 81241 is used to detect factor V (Leiden) mutation.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code GD452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coagulation. Clot formation.
congenital. Present at birth, occurring through heredity or an influence during gestation up to the moment of birth.
mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
286.3  Congenital deficiency of other clotting factors
286.5 Coagulation defects
286.9 Other and unspecified coagulation defects
286.9 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
FANCC (Fanconi anemia, complementation group C) (eg, Fanconi anemia, type C) gene analysis, common variant (eg, IVS4+4A>T)

Explanation
Specimen is whole blood. Methodology is PCR-based assay using Luminex. Mutations that have been associated with Fanconi anemia have been found in several genes; however, the IVS4(+4)A->T mutation is common in the Ashkenazi Jewish population. Fanconi anemia, an aplastic anemia, causes bone marrow failure and myelodysplasia or acute myelogenous leukemia.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
common variants. Nucleotide sequence differences associated with abnormal gene function. Tests are usually performed in a single series of laboratory testing (in a single, typically multiplex, assay arrangement or using more than one assay to include all variants to be examined). Variants are representative of a mutation that mainly causes a single disease, such as cystic fibrosis. Other uncommon variants could provide additional information. Tests may be performed based on society recommendations and guidelines.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
PCR. Polymerase chain reaction.

ICD-9-CM Diagnostic Codes
284.09 Other constitutional aplastic anemia
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V82.71 Screening for genetic disease carrier status
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
FMR1 (Fragile X mental retardation 1) (eg, fragile X mental retardation) gene analysis; characterization of alleles (eg, expanded size and methylation status)

Explanation
Sample can be blood, amniotic fluid, or chorionic villus. Prenatal sampling must be accompanied by maternal blood specimen. Methodology for 81243 is direct mutation analysis. Report 81244 when methylation-specific PCR, which assesses the methylation status, is performed. These tests are useful for determining carrier status, as well as confirmation of fragile X syndrome.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Code 81243 should be reported when evaluation to detect and characterize abnormal alleles using a single assay is performed. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.
assay. Test of purity.
chorionic villus sampling. Aspiration of a placental sample through a catheter, under ultrasonic guidance. The specialized needle is placed transvaginally through the cervix or transabdominally into the uterine cavity.
fragile X syndrome. Mental retardation, enlarged testes, big jaw, high forehead, and long ears in males. In females, fragile X presents mild retardation and heterozygous sexual structures. In some families, males have shown no symptoms but carry the gene.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

methylation. Mechanism used to regulate genes and protect DNA from some types of cleavage.
PCR. Polymerase chain reaction.

ICD-9-CM Diagnostic Codes
759.83 Fragile X syndrome
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V82.71 Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81244: 81243
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81245

Explanation
This test may also be ordered as a soft FLDV. Methodology is multiplex PCR. Sample is blood or bone marrow. Studies have shown the location of ITD of the FLT3 gene was restricted to exons 14 and 15. FLT3 internal tandem duplication (ITD) mutations in AML portend poor prognosis in adult and pediatric patients.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. This code is invalid for Medicare claims. Report the appropriate codes from the 81200-81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
**exon.** One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.

**leukemia.** Malignancy of the blood and blood-forming organs manifested by abnormal proliferation or development of leukocytes and their developmental precursors in the blood and bone marrow. Acute and chronic classifications in leukemia refer to the degree that the malignant cells have differentiated and not to the length of the disease itself. The predominant type of cell involved, whether myelogenous or lymphocytic, also determines classification.

**variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

### ICD-9-CM Diagnostic Codes

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<td>Acute myeloid leukemia, in relapse</td>
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<td>Subacute myeloid leukemia, without mention of having achieved remission</td>
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<td>Unspecified myeloid leukemia, in relapse</td>
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<td>V82.71</td>
<td>Screening for genetic disease carrier status</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

### CCI Version 20.0

84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**81250**

**81250** G6PC (glucose-6-phosphatase, catalytic subunit) (eg, Glycogen storage disease, type 1a, von Gierke disease) gene analysis, common variants (eg, R83C, Q347X)

**Explanation**
Specimen type varies. Methodology is PCR-assay. The G6PC gene family contains three members designated G6PC, G6PC2, and G6PC3. The tissue-specific expression patterns of these genes differ, and mutations in all three genes have been linked to distinct diseases in humans. This test is useful for genetic screening, as well as definitive diagnosis.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
- **assay**: Test of purity.
- **gene**: Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
- **mutation**: Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
- **PCR**: Polymerase chain reaction.
- **variant**: Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
- **271.0** Glycogenosis — (Use additional code to identify any associated intellectual disabilities)
- **V26.31** Testing of female for genetic disease carrier status
- **V26.35** Encounter for testing of male partner of female with recurrent pregnancy loss
- **V82.71** Screening for genetic disease carrier status
- **V82.79** Other genetic screening

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CCI Version 20.0
184311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
GBA (glucosidase, beta, acid) (eg, Gaucher disease) gene analysis, common variants (eg, N370S, 84GG, L444P, IVS2+1G>A)

Explanation
Sample can be blood, amniotic fluid, or chorionic villus. Prenatal sampling must be accompanied by maternal blood specimen. Methodology is PCR-based assay. These tests are used for prenatal diagnosis in high-risk pregnancies, for genetic screening, or as confirmation of a clinical diagnosis. Report 81251 for analysis of the GBA gene (Gaucher disease).

Coding Tips
To report HEXA gene analysis see 81255. This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
assay. Test of purity.
Gaucher disease. Genetic metabolic disorder in which fat deposits may accumulate in the spleen, liver, lungs, bone marrow, and brain.
PCR. Polymerase chain reaction.
Tay-Sachs disease. Hereditary condition in which gangliosides build up in the nerve cells of the brain resulting in deafness, loss of muscle tone, delayed mental and social skills, paralysis, seizures, and death.
variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
272.7  Lipidoses — (Use additional code to identify any associated intellectual disabilities)
330.1  Cerebral lipidoses — (Use additional code to identify associated intellectual disabilities)
V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V82.71  Screening for genetic disease carrier status
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
GJB2 (gap junction protein, beta 2, 26kDa, connexin 26) (eg, nonsyndromic hearing loss) gene analysis; full gene sequence

GJB6 (gap junction protein, beta 6, 30kDa, connexin 30) (eg, nonsyndromic hearing loss) gene analysis, common variants (eg, 309kb [del(GJB6-D13S1830)] and 232kb [del(GJB6-D13S1854)])

Explanation
This test may be requested as GJB2 (gap junction protein, beta 2, 26kDa, connexin 26) or nonsyndromic hearing loss gene analysis. Specimen is whole blood. Methodology is bidirectional sequence analysis and/or PCR amplification. This test screens for a genetic mutation of GJB2, which is accountable for a high frequency of nonsyndromic autosomal recessive deafness (DFNA3). Report 81252 for the analysis of the full gene sequence. Report 81253 if only the known familial variants are analyzed. Code 81254 may be requested as GJB6 (gap junction protein, beta 6, 30kDa, connexin 30) or nonsyndromic hearing loss gene analysis. Specimen is whole blood. Methodology is bidirectional sequence analysis and/or PCR amplification. This test screens for a genetic mutation of GJB6, which is accountable for a high frequency of recessively inherited deafness (DFNB1).

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
- assay. Test of purity.
- conductive hearing loss. Reduction in ability to hear due to loss of conduction between the outer and middle ear.
- mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.

ICD-9-CM Diagnostic Codes
389.00 Unspecified conductive hearing loss
389.01 Conductive hearing loss, external ear
389.02 Conductive hearing loss, tympanic membrane
389.03 Conductive hearing loss, middle ear
389.04 Conductive hearing loss, inner ear
389.05 Conductive hearing loss, unilateral
389.06 Conductive hearing loss, bilateral

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81255

**Explanation**
Sample can be blood, amniotic fluid, or chorionic villus. Prenatal sampling must be accompanied by maternal blood specimen. Methodology is PCR-based assay. These tests are used for prenatal diagnosis in high-risk pregnancies, for genetic screening, or as confirmation of a clinical diagnosis. Report 81255 for analysis of the HEXA gene (Tay-Sachs disease).

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
272.7 Lipidoses — (Use additional code to identify any associated intellectual disabilities)
330.1 Cerebral lipidoses — (Use additional code to identify associated intellectual disabilities)
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V82.71 Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
**81256**

**81256  HFE (hemochromatosis) (eg, hereditary hemochromatosis) gene analysis, common variants (eg, C282Y, H63D)**

**Explanation**
Sample is whole blood. Methodology is PCR-based assay. This study is useful in establishing or confirming the clinical diagnosis of hereditary hemochromatosis. It is not recommended for general patient genetic screening; however, it is appropriate for predictive testing of patients who have a family history of hereditary hemochromatosis.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **amino acid.** One of the building blocks of protein that contains a basic amino (NH2), an acidic carboxyl (COOH), and a variable side chain (R) attached to an alpha carbon atom.
- **assay.** Test of purity.
- **PCR.** Polymerase chain reaction.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
- **V82.71  Screening for genetic disease carrier status**
  This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia, Hb Bart hydrops fetalis syndrome, HbH disease), gene analysis, for common deletions or variant (eg, Southeast Asian, Thai, Filipino, Mediterranean, alpha3.7, alpha4.2, alpha20.5, and Constant Spring)

Explanation
Specimen is whole blood or amniotic fluid. Prenatal screening of amniotic fluid must be accompanied by maternal blood sample. Methodology is PCR amplification followed by bidirectional sequencing. Alpha thalassemia is one of the most common inherited disorders of hemoglobin worldwide. There are two main forms of this condition: Hb Bart hydrops fetalis syndrome where there is loss of all four alpha globin genes and Hemoglobin H disease where there is loss of three alpha globin gene function. Carrier states include the loss of two alpha globin genes (trait carrier status) and the loss of a single alpha globin gene (silent carrier status).

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
PCR. Polymerase chain reaction.
thalassemia. Group of inherited disorders of hemoglobin metabolism causing mild to severe anemia. It is usually found in people of Mediterranean, black, Chinese, or Asian descent. Report thalassemia with a code from ICD-9-CM subcategory 282.4.

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variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
282.40 Thalassemia, unspecified
282.43 Alpha thalassemia
282.46 Thalassemia minor
778.0 Hydrops fetalis not due to isoimmunization — (Use additional code(s) to further specify condition)
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V82.71 Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
IKBKAP (inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein) (eg, familial dysautonomia) gene analysis, common variants (eg, 2507+6T>C, R696P)

Explanation
Sample is whole blood, amniotic fluid, or chorionic villus sampling. Prenatal testing should be accompanied by maternal whole blood sample. Methodology is PCR-based assay and fluorescent hybridization probes. This study is useful in carrier screening, prenatal diagnosis, and clinical diagnosis confirmation. Mutations in the IKBKAP gene result in the manifestations of familial dysautonomia. There are two common mutations prevalent in the Ashkenazi Jewish population: IVS20(+6)T->C and R696P, and the carrier rate is one in 31.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- **amino acid.** One of the building blocks of protein that contains a basic amino (NH2), an acidic carboxyl (COOH), and a variable side chain (R) attached to an alpha carbon atom.
- **chorionic villus sampling.** Aspiration of a placental sample through a catheter, under ultrasonic guidance. The specialized needle is placed transvaginally through the cervix or transabdominally into the uterine cavity.
- **congenital.** Present at birth, occurring through heredity or an influence during gestation up to the moment of birth.
- **PCR.** Polymerase chain reaction.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

### ICD-9-CM Diagnostic Codes
- 742.8 Other specified congenital anomalies of nervous system
- V26.31 Testing of female for genetic disease carrier status
- V26.34 Testing of male for genetic disease carrier status
- V82.71 Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

### CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
IGH® (Immunoglobulin heavy chain locus) (e.g., leukemias and lymphomas, B-cell), gene rearrangement analysis to detect abnormal clonal population(s); amplified methodology (e.g., polymerase chain reaction)

IGH® (Immunoglobulin heavy chain locus) (e.g., leukemias and lymphomas, B-cell), gene rearrangement analysis to detect abnormal clonal population(s); direct probe methodology (e.g., Southern blot)

IGH® (Immunoglobulin heavy chain locus) (e.g., leukemia and lymphoma, B-cell), variable region somatic mutation analysis

Explanation
Sample may be blood, bone marrow, tissue, or spinal fluid. Immunoglobulin heavy locus (IGH®) is located on chromosome 14 and contains a gene for the heavy chains of human antibodies that recognize foreign antigens and initiate immune responses to those antigens. Each immunoglobulin contains two identical heavy chains and two identical light chains. As B-cells develop, these segments are rearranged. These tests are useful in determining if B-cell or plasma cell population is polyclonal or monoclonal. Code selection is dependent upon methodology. Report 81261 when the PCR assay method is used, 81262 when direct probe methodology is performed, and 81263 when somatic mutation analysis is performed. These tests are clinically useful for identifying neoplastic cells as having B-cell or plasma cell differentiation and in detecting immunoglobulin gene rearrangement that is similar to a previous neoplastic specimen in patients with a persistent neoplasm.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Microdissection, when performed, may be reported separately using 88380 or 88381, as appropriate. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
clonal. Originating from one cell.
monoclonal. Relating to a single clone of cells.

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ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81261: 81262-81263
Also not with 81262: 81263

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81264
IGK® (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell), gene rearrangement analysis, evaluation to detect abnormal clonal population(s)

Explanation
Sample may be blood or bone marrow. Immunoglobulin kappa light chain locus (IGK®) is found on chromosome 2. Polymerase chain reaction (PCR)-based assays are commonly used to detect clonal immunoglobulin (IG) gene rearrangements during the evaluation of lymphocyte infiltrates.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Report the appropriate codes from the 81200–81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

ICD-9-CM Diagnostic Codes
202.00 Nodular lymphoma, unspecified site, extranodal and solid organ sites
202.01 Nodular lymphoma of lymph nodes of head, face, and neck
202.02 Nodular lymphoma of intrathoracic lymph nodes
202.03 Nodular lymphoma of intra-abdominal lymph nodes
202.04 Nodular lymphoma of lymph nodes of axilla and upper limb
202.05 Nodular lymphoma of lymph nodes of inguinal region and lower limb
202.06 Nodular lymphoma of intrapelvic lymph nodes
202.07 Nodular lymphoma of spleen
202.08 Nodular lymphoma of lymph nodes of multiple sites
202.11 Mycosis fungoides of lymph nodes of head, face, and neck
202.12 Mycosis fungoides of intrathoracic lymph nodes
202.13 Mycosis fungoides of intra-abdominal lymph nodes
202.14 Mycosis fungoides of lymph nodes of axilla and upper limb
202.15 Mycosis fungoides of lymph nodes of inguinal region and lower limb
202.16 Mycosis fungoides of intrapelvic lymph nodes
202.17 Mycosis fungoides of spleen
202.18 Mycosis fungoides of lymph nodes of multiple sites
202.21 Sezary’s disease of lymph nodes of head, face, and neck
202.22 Sezary’s disease of intrathoracic lymph nodes
202.23 Sezary’s disease of intra-abdominal lymph nodes

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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81265-81266

81265 Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing, or maternal cell contamination of fetal cells)

81266 each additional specimen (eg, additional cord blood donor, additional fetal samples from different cultures, or additional zygosity in multiple birth pregnancies) (List separately in addition to code for primary procedure)

Explanation
Short tandem repeat (STR) sequences are used as identity markers. This test is useful in fraternal and identical twin determination, donor matches, and maternal cell contamination (MCC). The potential presence of MCC in chorionic villus or amniotic fluid samples poses a serious risk for prenatal misdiagnosis. Report 81265 for the first specimen and 81266 for each additional specimen.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Microdissection, when performed, may be reported separately using 88380 or 88381, as appropriate. As an add-on code, 81266 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
clonal. Originating from one cell.

ICD-9-CM Diagnostic Codes

279.50  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

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Chimerism (engraftment) analysis, post transplantation specimen (eg, hematopoietic stem cell), includes comparison to previously performed baseline analyses; without cell selection

with cell selection (eg, CD3, CD33), each cell type

Explanation
Specimen is blood or bone marrow. Methodology is short tandem repeat (STR). Allogenic hematopoietic stem cell transplantation (allo-HSCT) is frequently performed on patients who are at increased-risk for or have advanced hematologic malignancies and congenital or acquired aplastic anemias. In the context of the significant risk of graft failure after allo-HSCT from alternative donors and the risk of relapse in transplant recipients, precise monitoring of posttransplant hematopoietic chimerism is often necessary. Cell selection is useful in evaluating graft-versus-host disease in post-hematopoietic stem cell transplantation. Report 81267 when cell selection is not performed and 81268 once for each cell selection performed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. When chimerism testing and comparative STR analysis of recipient and donor are both performed, report 81265 and 81266 in addition to 81267 and/or 81268. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
chimera. Organ or anatomic structure consisting of tissues of diverse genetic constitution.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
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<td>V42.0</td>
<td>Kidney replaced by transplant</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81270

81270  JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene
analysis, p.Val617Phe (V617F) variant

Explanation
Specimen is whole blood. Methodology is PCR assay. This test may also
be ordered as a Tyrosine kinase mutation or Janus kinase 2 gene.
Myeloproliferative disorders (MPD) are a large group of relatively rare,
pathogenetically related diseases arising in the bone marrow. These
diseases are characterized by the proliferation of one or more myeloid
cell lines in the bone marrow, resulting in increased numbers of
relatively mature neoplastic cells in the peripheral blood. It has been
determined that the V617F mutation in the Janus Kinase 2 gene is
present in patients with polycythemia vera (PV), essential
thrombocythemia (ET), and myelofibrosis with myeloid metaplasia
(MMM).

Coding Tips
This code includes all analytical services that are required to perform
the assay, including cell lysis, nucleic acid stabilization, extraction,
digestion, amplification, and detection. When only the interpretation
is performed append modifier 26, Professional component, to the code.
For physician interpretation and reporting of molecular pathology
procedures performed on Medicare patients, see HCPCS Level II code
G0452. Venipuncture is separately reportable. For collection of venous
blood by venipuncture, see code 36415. When venipuncture on a
patient 3 years of age or older requires the skill of a physician or other
qualified health care provider, see code 36410. For venipuncture on a
patient younger than 3 years of age performed by a physician or other
qualified health care provider, see codes 36400-36406. Most third-party
payers and state scope of work exclude the use of a code requiring a
physician or other qualified health care provider, by a phlebotomist,
or other unlicensed clinical staff. If a specimen is transported to an
outside laboratory, report code 99000 for handling.

Terms To Know

gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in
different and unique sequences or strings that determine the gene's function.
Human genes usually include multiple protein coding regions such as exons
separated by introns which are nonprotein coding sections.
mutation. Alteration in gene function that results in changes to a gene or
chromosome. Can cause deficits or disease that can be inherited, can have
beneficial effects, or result in no noticeable change.
PCR. Polymerase chain reaction.
81275

KRAS (v-Ki-ras2 Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, variants in codons 12 and 13

**Explanation**
Specimen is tumor tissue block. Methodology is PCR-assay. KRAS mutation is predictive of a very poor response to anti-epidermal growth factor receptor (anti-EGFR) therapy in colorectal cancer.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Microdissection, when performed, may be reported separately using 88380 or 88381, as appropriate. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
codons. Series of three adjoining bases in one polynucleotide chain of a DNA or RNA molecule that provides the codes for a specific amino acid.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
PCR. Polymerase chain reaction.
variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
154.0 Malignant neoplasm of rectosigmoid junction

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Long QT syndrome gene analyses (eg, KCNQ1, KCNH2, SCN5A, KCNE1, KCNE2, KCNJ2, CACNA1C, CAV3, SCN4B, AKAP, SNTA1, and ANK2); full sequence analysis

Long QT syndrome gene analyses (eg, KCNQ1, KCNH2, SCN5A, KCNE1, KCNE2, KCNJ2, CACNA1C, CAV3, SCN4B, AKAP, SNTA1, and ANK2); known familial sequence variant
duplication/deletion variants

Explanation
Specimen is whole blood. Methodology is PCR assay. Long QT or Brugada syndrome is an inherited disorder characterized by the lengthening of the repolarization phase of the ventricular, which increases the risk for arrhythmic events and may result in syncope and sudden cardiac death. Code selection is dependent upon the number of variants analyzed. Report 81280 for full sequence analysis, 81281 for known familial sequence variants, and 81282 for duplication/deletion variants.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
**long QT syndrome.** Potentially fatal condition precipitated by vigorous exertion, emotional upset, or startling moments due to an imbalance in the electrical timing mechanism that controls the pumping action of the heart's ventricles. This syndrome causes the patient to be susceptible to recurrent episodes of syncope, collapse, and possible ventricular fibrillation that can cause sudden death. Report this condition with ICD-9-CM code 426.82. **Synonym(s):** prolonged QT interval syndrome, Romano-Ward syndrome.

**PCR.** Polymerase chain reaction.

**syncpe.** Light-headedness or fainting caused by insufficient blood supply to the brain. Report syncope with ICD-9-CM code 780.2.

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MGMT (O-6-methylguanine-DNA methyltransferase) (eg, glioblastoma multiforme), methylation analysis

**Explanation**
Specimen is cryopreserved glioblastoma tumor specimen. Methodology is methylation-specific polymerase chain reaction (MSP), pyrosequencing (PSQ), and methylation-specific multiplex ligation-dependent probe amplification (MS-MLPA). This test is useful for determining the likelihood that glioblastoma tumor cells will be responsive to alkylating medications and have enhanced chemosensitivity helping to determine the patient’s prognosis. Glioblastoma is the most common and aggressive form of primary brain cancer associated with high mortality rates.

**Coding Tips**
This code is new for 2014. This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
**malignant.** Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.

**ICD-9-CM Diagnostic Codes**
191.0    Malignant neoplasm of cerebrum, except lobes and ventricles
191.1    Malignant neoplasm of frontal lobe of brain
191.2    Malignant neoplasm of temporal lobe of brain
191.3    Malignant neoplasm of parietal lobe of brain
191.4    Malignant neoplasm of occipital lobe of brain
191.5    Malignant neoplasm of ventricles of brain
191.6    Malignant neoplasm of cerebellum NOS
191.7    Malignant neoplasm of brain stem
191.8    Malignant neoplasm of other parts of brain
191.9    Malignant neoplasm of brain, unspecified site
V84.09    Genetic susceptibility to other malignant neoplasm — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable, any current malignant neoplasms: 140.0-195.8, 200.0-208.9, 230.0-234.9. Use additional code, if applicable, for any personal history of malignant neoplasm: V10.0-V10.9)

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
88271-88275, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81290
MCOLN1 (mucolipin 1) (eg, Mucolipidosis, type IV) gene analysis, common variants (eg, IVS3-2A>G, del6.4kb)

Explanation
Specimen is blood, amniotic fluid, or chorionic villus. Prenatal samples should include a maternal blood specimen. Methodology is PCR-based assay. This test is useful for carrier status testing in individuals of Ashkenazi Jewish ancestry, prenatal screening for at-risk pregnancies, and confirmation of clinical diagnosis of mucolipidosis IV. Mucolipidosis IV is a lysosomal storage disease that results in mental retardation, hypotonia, corneal clouding, and retinal degeneration.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Chorionic villus sampling. Aspiration of a placental sample through a catheter, under ultrasonic guidance. The specialized needle is placed transvaginally through the cervix or transabdominally into the uterine cavity. This sampling is performed to provide a rich source of fetal genetic information to help diagnose defects. The transabdominal approach can be performed throughout pregnancy. The other approaches are usually done between nine and 12 weeks of gestation.
Gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

ICD-9-CM Diagnostic Codes

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<td>Lipidoses — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>Testing of female for genetic disease carrier status</td>
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<tr>
<td>V26.34</td>
<td>Testing of male for genetic disease carrier status</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81291

MTHFR (5,10-methylenetetrahydrofolate reductase) (eg, hereditary hypercoagulability) gene analysis, common variants (eg, 677T, 1298C)

Explanation
Specimen is whole blood. Methodology is direct mutation analysis based on the amplification of fluorescent signal released by cleavage of sequence specific alleles. Several MTHFR mutations have been associated with homocystinuria. Homocystinuria presents with a wide range of clinical manifestations, including developmental delay, mental retardation, and premature vascular disease.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.

mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no perceivable change.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide of the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
270.4 Disturbances of sulphur-bearing amino-acid metabolism — (Use additional code to identify any associated intellectual disabilities)

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<th>Code</th>
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<td>V26.31</td>
<td>Testing of female for genetic disease carrier status</td>
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<td>V26.34</td>
<td>Testing of male for genetic disease carrier status</td>
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<tr>
<td>V82.71</td>
<td>Screening for genetic disease carrier status</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis

MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants

duplication/deletion variants

Explanation
Specimen is whole blood. A variety of techniques may be used to perform these studies. These tests are useful in the screening and diagnosis of hereditary non-polyposis colon cancer (Lynch syndrome) by examining the MLH1 gene for mutation (mute L). Patients with Lynch syndrome develop colon cancer at a younger age. Report 81292 when a full sequence screening is performed, 81293 when screening for known familial mutations is performed, and 81294 when screening for duplication/deletion variances is performed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Analysis for the mutS homolog 2 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81295-81297 range. Analysis for mutations to the PMS2 gene, see 81317-81319. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Lynch syndrome. Hereditary nonpolyposis colorectal cancer, an inherited risk for multiple cancers primarily affecting the digestive tract, but also brain, skin, and urinary tract. Synonym(s): HNPCC.

ICD-9-CM Diagnostic Codes
153.0   Malignant neoplasm of hepatic flexure
153.1   Malignant neoplasm of transverse colon
153.2   Malignant neoplasm of descending colon
153.3   Malignant neoplasm of sigmoid colon
153.4   Malignant neoplasm of cecum
153.5   Malignant neoplasm of appendix
153.6   Malignant neoplasm of ascending colon
153.7   Malignant neoplasm of splenic flexure
153.8   Malignant neoplasm of other specified sites of large intestine
153.9   Malignant neoplasm of colon, unspecified site
154.0   Malignant neoplasm of rectosigmoid junction
V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V82.71  Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81292: 81293-81294
Also not with 81293: 81294

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81295-81297

81295  MSH2 (mutS homolog 2, colon cancer, nonpolyposis type 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis
81296  MSH2 (mutS homolog 2, colon cancer, nonpolyposis type 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants
81297  duplication/deletion variants

Explanation
Specimen is whole blood. A variety of techniques may be used to perform these studies. These tests are useful in the screening and diagnosis of hereditary non-polyposis colon cancer (Lynch syndrome) by examining the MSH2 gene for mutation (mutS). Patients with Lynch syndrome develop colon cancer at a younger age. Report 81295 when a full sequence screening is performed, 81296 when screening for known familial mutations is performed, and 81297 when screening for duplication/deletion variances is performed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Analysis for the mutL homolog 1 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81292-81294 range. Analysis for the mutS homolog 2 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81295-81297 range. For analysis of mutations to the PMS2 gene, see 81317-81319. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
Lynch syndrome. Hereditary nonpolyposis colorectal cancer, an inherited risk for multiple cancers primarily affecting the digestive tract, but also brain, skin, and urinary tract. Synonym(s): HNPCC.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
153.0  Malignant neoplasm of hepatic flexure
153.1  Malignant neoplasm of transverse colon
153.2  Malignant neoplasm of descending colon
153.3  Malignant neoplasm of sigmoid colon
153.4  Malignant neoplasm of cecum
153.5  Malignant neoplasm of appendix
153.6  Malignant neoplasm of ascending colon
153.7  Malignant neoplasm of splenic flexure
153.8  Malignant neoplasm of other specified sites of large intestine
153.9  Malignant neoplasm of colon, unspecified site
154.0  Malignant neoplasm of rectosigmoid junction
V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V82.71  Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81295: 81296-81297
Also not with 81296: 81297

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**81298-81300**

**81298**  MSH6 (mutS homolog 6 [E. coli]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis

**81299**  MSH6 (mutS homolog 6 [E. coli]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants

**81300**  duplication/deletion variants

**Explanation**

Specimen is whole blood. A variety of techniques may be used to perform these studies. These tests are useful in the screening and diagnosis of hereditary non-polyposis colon cancer (Lynch syndrome) by examining the MSH6 gene for mutation (mute S). Patients with Lynch syndrome develop colon cancer at a younger age. Report 81298 when a full sequence screening is performed, 81299 when screening for known familial mutations is performed, and 81300 when screening for duplication/deletion variances is performed.

**Coding Tips**

These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Analysis for the mutL homolog 1 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81292-81294 range. Analysis for the mutS homolog 2 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 91295-91297 range. For analysis of mutations to the PMS2 gene, see 81317-81319.

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**Lynch syndrome.** Hereditary nonpolyposis colorectal cancer, an inherited risk for multiple cancers primarily affecting the digestive tract, but also brain, skin, and urinary tract. **Synonym(s):** HNPCC.

**variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

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Also not with 81298: 81299-81300

Also not with 81299: 81300

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Microsatellite instability analysis (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) of markers for mismatch repair deficiency (eg, BAT25, BAT26), includes comparison of neoplastic and normal tissue, if performed

Explanation
Specimen is normal and tumor tissue. Methodology is fluorescent PCR-based assay. Microsatellite instability is the reduced fidelity of the replication of repetitive DNA most commonly occurring in tumor cells. Basically, MSI analysis involves a comparison of the allelic profiles of microsatellite markers generated by amplification of DNA from normal and tumor samples. Alleles that are present in the tumor sample but not found in the corresponding normal samples indicate MSI. This test may also be ordered as an MSI analysis.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Microdissection, when performed, may be reported separately using 88380 or 88381 as appropriate. Analysis for the mutL homolog 1 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81292-81294 range. Analysis for the mutS homolog 2 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81295-81297 range. To report mutS homolog 6 analysis, see 81298-81300. For analysis of mutations to the PMS2 gene, see 81317-81319. This code is invalid for Medicare claims. Report the appropriate codes from the 81200-81479 range to report this service.

Terms To Know
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
Lynch syndrome. Hereditary nonpolyposis colorectal cancer, an inherited risk for multiple cancers primarily affecting the digestive tract, but also brain, skin, and urinary tract. Synonym(s): HNPCC.

ICD-9-CM Diagnostic Codes
153.0 Malignant neoplasm of hepatic flexure
153.1 Malignant neoplasm of transverse colon
153.2 Malignant neoplasm of descending colon
153.3 Malignant neoplasm of sigmoid colon
153.4 Malignant neoplasm of cecum
153.5 Malignant neoplasm of appendix
153.6 Malignant neoplasm of ascending colon
153.7 Malignant neoplasm of splenic flexure
153.8 Malignant neoplasm of other specified sites of large intestine
153.9 Malignant neoplasm of colon, unspecified site
154.0 Malignant neoplasm of rectosigmoid junction
V26.31 Testing of female for genetic disease carrier status
V26.34 Testing of male for genetic disease carrier status
V82.71 Screening for genetic disease carrier status

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; full sequence analysis

MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; known familial variant

duplication/deletion variants

**Explanation**

Specimen is blood. Methodology is PCR-analysis. Genetic mutations in MECP2 can be associated with variable phenotypes in females, including classic Rett syndrome, variant or atypical Rett syndrome, mild mental retardation, and asymptomatic carriers. Males with MECP2 mutations can present with variable phenotypes as well. These tests can be useful in the screening and diagnosis of Rett syndrome. Report 81302 for full gene sequence analysis, 81303 when analysis is for known familial gene variations, and 81304 when duplication/deletion variants are determined.

**Coding Tips**

These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. Microdissection, when performed, may be reported separately using 88380 or 88381 as appropriate. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

familial variant. Specific mutation to a gene that has previously been identified within the patient’s family.

microdissection. Dissection of tissue using a microscope.

mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.


**ICD-9-CM Diagnostic Codes**

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<td>V26.31</td>
<td>Testing of female for genetic disease carrier status</td>
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<td>V26.34</td>
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<td>V82.71</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

84311, 88271-88275, 88291, 88365-88368

Also not with 81302: 81303-81304

Also not with 81303: 81304

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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<td>MEC2P (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; known familial variant</td>
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<td>81304</td>
<td>duplication/deletion variants</td>
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**81310**

**NPM1 (nucleophosmin) (eg, acute myeloid leukemia) gene analysis, exon 12 variants**

**Explanation**
Sample is whole blood or bone marrow. Methodology is PCR-assay. This analysis examines the NPM1 gene targeting exon 12 mutations. This test is clinically significant in the prognosis of patients newly diagnosed with acute myeloid leukemia.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
exon. One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.
leukemia. Malignancy of the blood and blood-forming organs manifested by abnormal proliferation or development of leukocytes and their developmental precursors in the blood and bone marrow. Acute and chronic classifications in leukemia refer to the degree that the malignant cells have differentiated and not to the length of the disease itself. The predominant type of cell involved, whether myelogenous or lymphocytic, also determines classification.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>Acute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.01</td>
<td>Acute myeloid leukemia in remission</td>
</tr>
<tr>
<td>205.02</td>
<td>Acute myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
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<td>205.11</td>
<td>Chronic myeloid leukemia in remission</td>
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<td>205.12</td>
<td>Chronic myeloid leukemia, in relapse</td>
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<tr>
<td>205.20</td>
<td>Subacute myeloid leukemia, without mention of having achieved remission</td>
</tr>
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<td>205.21</td>
<td>Subacute myeloid leukemia in remission</td>
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**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**81315-81316**

81315  PML/RARalpha, (t(15;17)), (promyelocytic leukemia/retinoic acid receptor alpha) (eg, promyelocytic leukemia) translocation analysis; common breakpoints (eg, intron 3 and intron 6), qualitative or quantitative

81316  PML/RARalpha, (t(15;17)), (promyelocytic leukemia/retinoic acid receptor alpha) (eg, promyelocytic leukemia) translocation analysis; single breakpoint (eg, intron 3, intron 6 or exon 6), qualitative or quantitative

**Explanation**
Specimen is whole blood or bone marrow. Methodology is PCR-assay. These tests are useful in the diagnosis of acute promyelocytic leukemia (APL), the detection of residual or recurrent APL, and in monitoring the level of promyelocytic leukemia/retinoic acid receptor alpha in patients with APL. Report 81315 for common breakpoint analysis or 81316 when a single breakpoint is analyzed.

**Coding Tips**
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Report 81315 when intron 3 and intron 6, including exon 6 is performed. When intron 6 and exon 6 are performed without intron 3, report 81316 with a unit of one. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **breakpoint**: Point at which a chromosome breaks.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>205.01</td>
<td>Acute myeloid leukemia in remission</td>
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<td>205.11</td>
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<td>205.12</td>
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<td>205.21</td>
<td>Subacute myeloid leukemia in remission</td>
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<td>Myeloid sarcoma, without mention of having achieved remission</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

84311, 88271-88275, 88291, 88365-88368

Also not with 81315: 81316

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81317-81319

**Explaniation**
Specimen varies. A variety of techniques may be used to perform these studies. These tests are useful in the screening and diagnosis of hereditary non-polyposis colon cancer (Lynch syndrome) by examining the PMS2 gene for mutation. Patients with Lynch syndrome develop colon cancer at a younger age. Report 81317 when a full sequence screening is performed, 81318 when screening for known familial mutations is performed, and 81319 when screening for duplication/deletion variances is performed.

**Coding Tips**
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Analysis for the mutL homolog 1 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81292-81294 range. Analysis for the mutS homolog 2 gene mutation for hereditary nonpolyposis colon cancer should be reported using the appropriate code from the 81295-81297 range. To report mutS homolog 6 analysis, see 81298-81300. For analysis of mutations to the PMS2 gene, see 81317-81319. Microsatellite instability analysis is reported using 81301. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
**variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
153.0  Malignant neoplasm of hepatic flexure
153.1  Malignant neoplasm of transverse colon
153.2  Malignant neoplasm of descending colon
153.4  Malignant neoplasm of cecum
153.5  Malignant neoplasm of appendix
153.6  Malignant neoplasm of colon
153.7  Malignant neoplasm of ascending colon
153.8  Malignant neoplasm of other specified sites of large intestine
153.9  Malignant neoplasm of colon, unspecified site
154.0  Malignant neoplasm of rectosigmoid junction
V26.31  Testing of female for genetic disease carrier status
V26.34  Testing of male for genetic disease carrier status
V82.71  Screening for genetic disease carrier status

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368
Also not with 81317: 81318-81319
Also not with 81318: 81319

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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81321-81323

81321  PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome) gene analysis; full sequence analysis

81322  PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome) gene analysis; known familial variant

81323  duplication/deletion variant

Explanation
This test may be requested as PTEN (phosphatase and tensin homolog), Cowden syndrome, or PTEN hamartoma tumor syndrome gene analysis. Specimen is whole blood or saliva. Methodology is bidirectional sequence analysis and FISH (fluorescent in situ hybridization) testing. This test screens for mutations of the PTEN gene, which causes defects in or omission of the PTEN enzyme, a tumor suppressor. A mutation of this gene results in diseases such as Cowden syndrome, which presents a high risk for benign and malignant tumors of the thyroid, breast, and endometrium, and hamartoma tumor syndrome. Report 81321 for analysis of the full gene sequence. Report 81322 if only the known familial variants are analyzed. Report 81323 when only the duplication/deletion variants are analyzed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
Cowden syndrome. Inherited disorder characterized by hamartomas of stomach and gastrointestinal tract, breast, thyroid carcinoma, and brain. An increased incidence of malignant tumors of the breast, endometrial tissues, and thyroid gland is also described. Report this disorder with ICD-9-CM code 759.6. Synonym(s): multiple hamartoma.

gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

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81324-81326

81324  PMP22 (peripheral myelin protein 22) (e.g., Charcot-Marie-Tooth, hereditary neuropathy with liability to pressure palsies) gene analysis; duplication/deletion analysis

81325  PMP22 (peripheral myelin protein 22) (e.g., Charcot-Marie-Tooth, hereditary neuropathy with liability to pressure palsies) gene analysis; full sequence analysis

81326  known familial variant

Explanation
This test screens for mutations in the peripheral myelin protein 22 gene, which is responsible for development and maintenance of myelin in the nervous system. Specimen is whole blood. Methodology is multiplex ligation-dependent probe amplification (MLPA). Mutations of this gene, most commonly duplication, result in Charcot-Marie-Tooth syndrome type 1A. Deletion of this gene causes demyelination, resulting in hereditary neuropathy with liability to pressure palsies. Report 81324 if only the duplication/deletion variants are analyzed. Report 81325 when the full gene sequence is analyzed. Report 81326 if only the known familial variants are analyzed.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know

gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
356.1  Peroneal muscular atrophy
V26.31  Testing of female for genetic disease carrier status

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CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81324: 81326
Also not with 81325: 81324, 81326
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81330

**Explanation**
Specimen is whole blood. Methodology is PCR-assay. There are three types of Niemann-Pick disease: A, B, and C. Niemann-Pick disease type A is a lysosomal storage disease resulting from three common gene mutations (R496L, L302P, and fsP330). These mutations cause a deficiency of the enzyme acid sphingomyelinase resulting in jaundice, the progressive loss of motor skills, difficulties with feeding, enlargement of the liver and spleen, and learning disabilities. This test is useful for carrier screening. The mutation is more common in patients of the Ashkenazi Jewish heritage.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **mutation.** Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
- **Niemann-Pick syndrome.** Accumulation of phospholipid in histiocytes in the bone marrow, liver, lymph nodes, and spleen, cerebral involvement, and red macular spots similar to Tay-Sachs disease. Most commonly found in Jewish infants.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

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</table>
SNRPN/UBE3A (small nuclear ribonucleoprotein polypeptide N and ubiquitin protein ligase E3A) (eg, Prader-Willi syndrome and/or Angelman syndrome), methylation analysis

Explanation
This test is useful for the confirmation of Prader-Willi or Angelman syndromes. These syndromes result in global developmental delay, as well as other symptoms, and are thought to be the result of mutations to chromosome 15. Specimen is blood or amniotic fluid. Amniotic fluid must be accompanied by maternal blood. Methodology is methylation-sensitive multiple ligation-dependent probe amplification (MLPA).

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code.

Terms To Know
Angelman syndrome. Early childhood emergence of a pattern of interrupted development, stiff, jerky gait, absence or impairment of speech, excessive laughter, and seizures.

methylation. Mechanism used to regulate genes and protect DNA from some types of cleavage.

mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.

Prader-Willi syndrome. Rounded face, almond-shaped eyes, strabismus, low forehead, hypogonadism, hypotonia, mental retardation, and an insatiable appetite.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>759.81</td>
<td>Prader-Willi syndrome</td>
</tr>
<tr>
<td>V26.31</td>
<td>Testing of female for genetic disease carrier status</td>
</tr>
<tr>
<td>V26.34</td>
<td>Testing of male for genetic disease carrier status</td>
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<tr>
<td>V28.0</td>
<td>Screening for chromosomal anomalies by amniocentesis</td>
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<tr>
<td>V83.81</td>
<td>Cystic fibrosis gene carrier</td>
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<td>V84.89</td>
<td>Genetic susceptibility to other disease</td>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81332

SERPINA1 (serpin peptidase inhibitor, clade A, alpha-1 antiproteinase, antitrypsin, member 1) (eg, alpha-1-antitrypsin deficiency), gene analysis, common variants (eg, *S and *Z)

Explanation
Specimen is both whole blood and serum. Methodology is PCR-assay. This test is clinically useful for the diagnosis, prognosis, and genetic screening for alpha-1-antitrypsin (A1A) deficiency. A1A deficiency results in lung tissue degradation and places the patient at increased risk for early onset of panlobar emphysema.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable for collection of venous blood. By venipuncture, see code 36415. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

emphysema. Pathological condition in which there is destructive enlargement of the air spaces in the lungs resulting in damage to the alveolar walls, commonly seen in long-term smokers.

PCR. Polymerase chain reaction.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes

- 273.4 Alpha-1-antitrypsin deficiency — (Use additional code to identify any associated intellectual disabilities)
- 492.8 Other emphysema
- V26.31 Testing of female for genetic disease carrier status
- V26.34 Testing of male for genetic disease carrier status
- V28.0 Screening for chromosomal anomalies by amniocentesis
- V83.81 Cystic fibrosis gene carrier
- V84.89 Genetic susceptibility to other disease

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81340-81342

81340  TRB@ (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, polymerase chain reaction)

81341  TRB@ (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using direct probe methodology (eg, Southern blot)

81342  TRG@ (T cell antigen receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s)

Explanation
Specimen varies. Methodology can be PCR-assay (81340 [TRB@]) or 81342 [TRG@]) or direct probe (81341). T-cell gene rearrangement is used to determine if T-cell population is polyclonal or monoclonal. This can be clinically significant in determining malignancy.

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. Report the appropriate code from range 81200-81479 when T cell antigen alpha (TRA@) gene rearrangement analysis is performed. Report 81401 when T cell antigen delta (TCD@) gene rearrangement is performed. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
- clonal: Originating from one cell.
- gene: Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
- monoclonal: Relating to a single clone of cells.
- PCR: Polymerase chain reaction.
- polyclonal: Containing one or more cells.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
84311, 88271-88275, 88291, 88365-88368
Also not with 81340: 81341

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**81350**


**Explanation**
This test is used to identify the UGT1A1 mutation and carrier status. Specimen is whole blood. Methodology is PCR-assay. Mutations to the UGT1A1 gene result in hyperbilirubinemia.

**Coding Tips**
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **polypeptide.** Chain of amino acids held together by covalent bonds. Proteins are made up of amino acids.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.
- **venipuncture.** Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**
- 277.4 Disorders of bilirubin excretion — (Use additional code to identify any associated intellectual disabilities)
- 782.4 Jaundice, unspecified, not of newborn

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VKORC1 (vitamin K epoxide reductase complex, subunit 1) (eg, warfarin metabolism), gene analysis, common variants (eg, -1639/3673)

Explanation
This test may also be ordered as Coumadin genotype or warfarin genotype. Specimen is whole blood. Methodology is PCR-assay. This test is used to identify patients who are poor metabolizers or extensive metabolizers of warfarin because of mutations to the VKORC1 gene. This allows physicians to adjust drug levels, including non-conventional doses, or to select drugs that are not affected by the mutation.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code.

Terms To Know
mutation. Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.

variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.
81370-81371

81370  HLA Class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1
81371  HLA-A, -B, and -DRB1 (eg, verification typing)

Explanation

These tests are commonly used to determine the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD). Variations may also be used to detect susceptibility to certain genetic autoimmune diseases. Human leukocyte antigens (HLA) are a group of genes found on chromosome 6. There are two types of HLA: class I and class II. Low resolution (or generic) HLA typing can be performed via serology, cellular, or molecular technique, the molecular technique being the most common. In this technique, whole blood must be obtained and DNA extracted. The genes of interest are amplified and identification of HLA type is made via detection of the DNA sequence polymorphism. High resolution typing involves identifying groups of alleles and approximating the specific HLA characteristics. Report 81370 for low resolution typing of HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1. Report 81371 for low resolution typing of HLA-A, -B, and DRB1.

Coding Tips

Code 81371 has been revised for 2014. Additional studies resolving ambiguous allele combinations for high resolution typing are included and should not be reported separately. Nonmolecular pathology techniques of HLA antigen typing are reported using the appropriate code from the 86812–86822 range. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. The determination of the presence or absence of the DRB3/4/5 genes is included and should not be reported additionally.

Terms To Know

alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.

ICD-9-CM Diagnostic Codes

279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.52  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.53  Acute on chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

84311, 86812-86817, 88291

CCI Version 20.0

84311, 86812-86817, 88291
Also not with 81370: 81371-81377
Also not with 81371: 81372-81377

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

81372  HLA Class I typing, low resolution (eg, antigen equivalents); complete (ie, HLA-A, -B, and -C)
81373  1 locus (eg, HLA-A, -B, or -C), each
81374  1 antigen equivalent (eg, B*27), each

Explanation
These tests are commonly used to determine the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD). Variations may also be used to detect susceptibility to certain genetic autoimmune diseases. Human leukocyte antigens (HLA) are a group of genes found on chromosome 6. There are two types of HLA: class I and class II. Low resolution (or generic) HLA typing can be performed via serology, cellular, or molecular technique, the molecular technique being the most common. In this technique, whole blood must be obtained and DNA extracted. The genes of interest are amplified and identification of HLA type is made via detection of the DNA sequence polymorphism. High resolution typing involves identifying groups of alleles and approximating the specific HLA characteristics. Report 81372 for complete low resolution HLA class I typing, including HLA-A, -B, and -C. Report 81373 for HLA low resolution typing of each individual class I loci (HLA-A, -B, or -C) when complete class I typing is not performed. Report 81374 for low resolution class I typing of each serological HLA equivalent or subtype (e.g., HLA-B*27).

Coding Tips
Additional studies resolving ambiguous allele combinations for high-resolution typing are included and should not be reported separately. Nonmolecular pathology techniques of HLA antigen typing are reported using the appropriate code from the 86812-86822 range. Report code 81370 when both class I and II low resolution HLA typing for HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1 are performed. Report 81372 when a complete class I low resolution HLA typing is performed. Report 81373 once for each locus when the presence or absence of more than 2 antigen equivalents at a locus is performed. Report 81374 when low-resolution testing for the presence or absence of a single antigen equivalent is performed. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.
locus. Specific location of a gene or DNA sequence on a chromosome.

ICD-9-CM Diagnostic Codes

279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89) (Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89) (Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.52  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89) (Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.53  Acute on chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89) (Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

V42.0  Kidney replaced by transplant
V42.1  Heart replaced by transplant
V42.4  Bone replaced by transplant
V42.6  Lung replaced by transplant
V42.7  Liver replaced by transplant
V42.8  Bone marrow replaced by transplant
V42.82  Peripheral stem cells replaced by transplant
V42.83  Pancreas replaced by transplant
V42.84  Organ or tissue replaced by transplant, intestines
V42.89  Other organ or tissue replaced by transplant
V59.02  Stem cell donor
V59.2  Bone donor
V59.3  Bone marrow donor
V59.4  Kidney donor
V59.6  Liver donor
V59.8  Donor of other specified organ or tissue
V59.9  Donor of unspecified organ or tissue
V70.4  Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V70.8  Other specified general medical examination — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

84311, 88291
Also not with 81372: 81373-81376, 86812-86816
Also not with 81373: 81374, 81376, 86812-86817
Also not with 81374: 86812-86813

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
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<td><strong>Coding and Payment Guide for Laboratory Services</strong></td>
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<tr>
<th>Explanation</th>
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<td><strong>1 antigen equivalent (eg, B*27), each</strong></td>
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<table>
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<td><strong>alleles.</strong></td>
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<td><strong>locus.</strong></td>
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ICD-9-CM Diagnostic Codes

locus. Specific location of a gene or DNA sequence on a chromosome.

Terms To Know

locus. Specific location of a gene or DNA sequence on a chromosome.

ICD-9-CM Diagnostic Codes

279.50 Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

Coding Tips

Code 81376 has been revised for 2014 in the official CPT description. Additional studies resolving ambiguous allele combinations for high-resolution typing can be performed separately. Nonmolecular pathology techniques of HLA antigen typing are reported using the appropriate code from the 86812-86822 range. Report code 81376 when all class I and II low-resolution HLA typing for HLA-A, -B, -C, -DRB1/3/4/5, and -DQ81 are performed. Report 81375 when low-resolution typing is performed for HLA-DRB1/3/5 and -DQB1. Report 81377 for low resolution HLA typing of each individual class II locus (HLA-DRB1, -DRB3/4/5, -DQ81, -DQA1, -DPB1, or -DPA1) when a complete class II typing is not performed. Report 81377 for low resolution class II typing of each serological HLA equivalent or subtype.

Coding and Payment Guide for Laboratory Services
81378

81378  HLA Class I and II typing, high resolution (ie, alleles or allele groups), HLA-A, -B, -C, and -DRB1

Explanation
This test is commonly used to determine the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD). Variations may be used to detect susceptibility to certain genetic autoimmune diseases. Human leukocyte antigens (HLA) are a group of genes found on chromosome 6. There are two types of HLA: class I and class II. Low resolution (or generic) HLA typing can be performed via serology, cellular, or molecular technique, the molecular technique being the most common. In this technique, whole blood must be obtained and DNA extracted. The genes of interest are amplified and identification of HLA type is made via detection of the DNA sequence polymorphism. High resolution typing involves identifying alleles or allele groups by examining and determining the specific HLA characteristics. Code 81378 is reported for high resolution typing of both HLA class I and II (HLA-A, -B, -C, and -DRB1).

Coding Tips
Additional studies resolving ambiguous allele combinations for high resolution typing are included and should not be reported separately. Nonmolecular pathology techniques of HLA antigen typing are reported using the appropriate code from the 86812-86822 range. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.

ICD-9-CM Diagnostic Codes
279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)
279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)
279.52  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)
279.53  Acute on chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

V42.0  Kidney replaced by transplant
V42.1  Heart replaced by transplant
V42.4  Bone replaced by transplant
V42.6  Lung replaced by transplant
V42.7  Liver replaced by transplant
V42.81  Bone marrow replaced by transplant
V42.82  Peripheral stem cells replaced by transplant
V42.83  Pancreas replaced by transplant
V42.84  Organ or tissue replaced by transplant, intestines
V42.89  Other organ or tissue replaced by transplant
V59.02  Stem cell donor
V59.2  Bone donor
V59.3  Bone marrow donor
V59.4  Kidney donor
V59.6  Liver donor
V59.8  Donor of other specified organ or tissue
V59.9  Donor of unspecified organ or tissue
V70.4  Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V70.8  Other specified general medical examination — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
81370-81377, 81379-81383, 84311, 86812-86817, 88291
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

Herditary variation.

Terms To Know

alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.

locus. Specific location of a gene or DNA sequence on a chromosome.

ICD-9-CM Diagnostic Codes

279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify any associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify any associated manifestations: 695.89, 704.09, 782.4, 787.91)

Coding Tips

Additional studies resolving ambiguous allele combinations for high-resolution typing are included and should not be reported separately. Nonmolecular pathology techniques of HLA antigen typing are reported using the appropriate code from the 86812-86822 range. Report 81379 when a complete class I typing is performed. Report 81381 when the high-resolution testing to determine the presence or absence of a single allele or allele group is performed. Code 81380 is reported when the presence or absence of more than two alleles or allele groups when a locus is performed. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

CCI Version 20.0

Also not with 81379: 81370-81377, 81380-81382, 86812-86813
Also not with 81380: 81370-81377, 81381-81382, 86812-86817
Also not with 81381: 81370-81374, 81376-81377, 86812-86813

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.52  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.53  Acute on chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

V42.0  Kidney replaced by transplant
V42.1  Heart replaced by transplant
V42.4  Bone replaced by transplant
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V59.8  Donor of other specified organ or tissue
V59.9  Donor of unspecified organ or tissue
V70.4  Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V70.8  Other specified general medical examination — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

84311, 86812-86817, 88291

Also not with 81382: 81370, 81375-81377, 81383

Also not with 81383: 81370-81377

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

| HLA Class II typing, high resolution (ie, alleles or allele groups); 1 locus (eg, HLA-DRB1, -DRB3/4/5, -DQA1, -DQB1, or -DP1), each | 81382 |
| 1 allele or allele group (eg, HLA-DQB1*06:02P), each | 81383 |

Explanation
These tests are commonly used to determine the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD). Variations may also be used to detect susceptibility to certain genetic autoimmune diseases. Human leukocyte antigens (HLA) are a group of genes found on chromosome 6. There are two types of HLA: class I and class II. Low resolution (or generic) HLA typing can be performed via serology, cellular, or molecular technique, the molecular technique being the most common. In this technique, whole blood must be obtained and DNA extracted. The genes of interest are amplified and identification of HLA type is made via detection of the DNA sequence polymorphism. High resolution typing involves identifying alleles or allele groups by examining and determining the specific HLA characteristics. Report 81382 for high resolution typing of an individual HLA class II locus, including HLA-DRB1, -DRB3/4/5, -DQA1, -DQB1, or -DP1. Report 81383 for high resolution typing of each individual class II allele or allele group (e.g., HLA-DQB1*06:02P).

Coding Tips
Code 81382 has been revised for 2014 in the official CPT description. Additional studies resolving ambiguous allele combinations for high-resolution typing are included and should not be reported separately. Nonmolecular pathology techniques of HLA antigen typing is reported using the appropriate code from the 86812-86822 range. Report 81382 once for each locus when testing for the presence or absence of more than two alleles or allele groups is performed. Report 81383 when only the presence or absence of a single allele or allele group is performed by high-resolution testing. These codes are invalid for Medicare claims. Report the appropriate codes from the 81200-81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. High-resolution typing involves identifying alleles or allele groups by examining and determining the specific HLA characteristics. Report 81382 for high resolution typing of an individual HLA class II locus, including HLA-DRB1, -DRB3/4/5, -DQA1, -DQB1, -DPB1, or -DP1. Report 81383 for high resolution typing of each individual class II allele or allele group (e.g., HLA-DQB1*06:02P).

Terms To Know
alleles. Form of gene usually arising from a mutation responsible for a hereditary variation.
locus. Specific location of a gene or DNA sequence on a chromosome.

ICD-9-CM Diagnostic Codes

279.50  Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.51  Acute graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.52  Chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

279.53  Acute on chronic graft-versus-host disease — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

V42.0  Kidney replaced by transplant
V42.1  Heart replaced by transplant
V42.4  Bone replaced by transplant
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V42.7  Liver replaced by transplant
V42.81  Bone marrow replaced by transplant
V42.82  Peripheral stem cells replaced by transplant
V42.83  Pancreas replaced by transplant
V42.84  Organ or tissue replaced by transplant, intestines
V42.89  Other organ or tissue replaced by transplant
V59.02  Stem cell donor
V59.2  Bone donor
V59.3  Bone marrow donor
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V59.8  Donor of other specified organ or tissue
V59.9  Donor of unspecified organ or tissue
V70.4  Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V70.8  Other specified general medical examination — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

84311, 86812-86817, 88291

Also not with 81382: 81370, 81375-81377, 81383

Also not with 81383: 81370-81377

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Coding and Payment Guide for Laboratory Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Value</td>
<td>Non-Fac PE</td>
</tr>
<tr>
<td>81382.................</td>
<td>0.00</td>
</tr>
<tr>
<td>81383.................</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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81400

**Explanation**

These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

**Coding Tips**

This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>251.0</td>
<td>Hypoglycemic coma — (Use additional E code to identify drug, if drug induced)</td>
</tr>
<tr>
<td>251.1</td>
<td>Other specified hypoglycemia — (Use additional E code to identify drug, if drug induced)</td>
</tr>
<tr>
<td>270.9</td>
<td>Unspecified disorder of amino-acid metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>271.3</td>
<td>Intestinal disaccharidase deficiencies and disaccharide malabsorption — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>277.85</td>
<td>Disorders of fatty acid oxidation — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>286.0</td>
<td>Congenital factor VIII disorder</td>
</tr>
<tr>
<td>286.1</td>
<td>Congenital factor IX disorder</td>
</tr>
<tr>
<td>286.2</td>
<td>Congenital factor XI deficiency</td>
</tr>
<tr>
<td>286.3</td>
<td>Congenital deficiency of other clotting factors</td>
</tr>
<tr>
<td>286.4</td>
<td>Von Willebrand’s disease</td>
</tr>
<tr>
<td>287.31</td>
<td>Immune thrombocytopenic purpura</td>
</tr>
<tr>
<td>287.32</td>
<td>Evans’ syndrome</td>
</tr>
<tr>
<td>287.33</td>
<td>Congenital and hereditary thrombocytopenic purpura</td>
</tr>
<tr>
<td>287.41</td>
<td>Posttransfusion purpura</td>
</tr>
<tr>
<td>289.81</td>
<td>Primary hypercoagulable state</td>
</tr>
<tr>
<td>333.6</td>
<td>Genetic torsion dystonia</td>
</tr>
<tr>
<td>359.0</td>
<td>Congenital hereditary muscular dystrophy</td>
</tr>
</tbody>
</table>

Other codes may be applicable. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**81401**

Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat)

**Explanation**

These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

**Coding Tips**

This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**ICD-9-CM Diagnostic Codes**

153.0 Malignant neoplasm of hepatic flexure
153.1 Malignant neoplasm of transverse colon
153.2 Malignant neoplasm of descending colon
153.4 Malignant neoplasm of cecum
153.5 Malignant neoplasm of appendix
153.6 Malignant neoplasm of ascending colon
153.7 Malignant neoplasm of splenic flexure
200.40 Mantle cell lymphoma, unspecified site, extranodal and solid organ sites
200.41 Mantle cell lymphoma, lymph nodes of head, face, and neck
200.42 Mantle cell lymphoma, intrathoracic lymph nodes
200.43 Mantle cell lymphoma, intra-abdominal lymph nodes
200.44 Mantle cell lymphoma, lymph nodes of axilla and upper limb
200.45 Mantle cell lymphoma, lymph nodes of inguinal region and lower limb
200.46 Mantle cell lymphoma, intrapelvic lymph nodes
200.47 Mantle cell lymphoma, spleen
200.48 Mantle cell lymphoma, lymph nodes of multiple sites
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
205.00 Acute myeloid leukemia, without mention of having achieved remission
205.10 Chronic myeloid leukemia, without mention of having achieved remission
271.1 Galactosemia — (Use additional code to identify any associated intellectual disabilities)
272.2 Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)
282.60 Sickle-cell disease, unspecified
282.61 Hb-SS disease without crisis
282.62 Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.63 Sickle-cell/Hb-C disease without crisis
282.64 Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
286.2 Congenital factor XI deficiency
286.4 Von Willebrand's disease
331.0 Alzheimer's disease — (Use additional code, where applicable, to identify dementia: 294.10, 294.11)
333.4 Huntington's chorea
335.11 Kugelberg-Welander disease
359.21 Myotonic muscular dystrophy
362.50 Macular degeneration (senile) of retina, unspecified
362.51 Nonexudative senile macular degeneration of retina
362.52 Exudative senile macular degeneration of retina
362.53 Cystoid macular degeneration of retina
362.54 Macular cyst, hole, or pseudohole of retina
362.55 Toxic maculopathy of retina — (Use additional E code to identify drug, if drug induced)
362.56 Macular puckering of retina
362.57 Drusen (degenerative) of retina
V84.09 Genetic susceptibility to other malignant neoplasm — (Use additional code, if applicable, for any associated family history of the disease: V16-V19. Code first, if applicable, any current malignant neoplasms: 140.0-195.8, 200.0-208.9, 230.0-234.9. Use additional code, if applicable, for any personal history of malignant neoplasm: V10.0-V10.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

84311, 88271-88275, 88291, 88365-88368

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Molecular pathology procedure, Level 3 (eg, >10 SNPs, 2-10 methylated variants, or 2-10 somatic variants [typically using non-sequencing target variant analysis], immunoglobulin and T-cell receptor gene rearrangements, duplication/deletion variants of 1 exon, loss of heterozygosity [LOH], uniparental disomy [UPD])

Explanation
These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

Coding Tips
This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
- exon: One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.
- gene: Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
- mutation: Alteration in gene function that results in changes to a gene or chromosome. Can cause deficits or disease that can be inherited, can have beneficial effects, or result in no noticeable change.
- variant: Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
81403

**Molecular pathology procedure, Level 4 (e.g., analysis of single exon by DNA sequence analysis, analysis of >10 amplicons using multiplex PCR in 2 or more independent reactions, mutation scanning or duplication/deletion variants of 2-5 exons)**

**Explanation**
These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

**Coding Tips**
This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
- **exon.** One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81404

Molecular pathology procedure, Level 5 (eg, analysis of 2-5 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 6-10 exons, or characterization of a dynamic mutation disorder/triplet repeat by Southern blot analysis)

Explanation
These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

Coding Tips
This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>171.5</td>
<td>Malignant neoplasm of connective and other soft tissue of abdomen</td>
</tr>
<tr>
<td>193</td>
<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
</tr>
<tr>
<td>194.5</td>
<td>Malignant neoplasm of carotid body</td>
</tr>
<tr>
<td>194.6</td>
<td>Malignant neoplasm of aortic body and other paraganglia</td>
</tr>
<tr>
<td>205.00</td>
<td>Acute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.02</td>
<td>Acute myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.12</td>
<td>Chronic myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>205.20</td>
<td>Subacute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.22</td>
<td>Subacute myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>205.30</td>
<td>Myeloid sarcoma, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.32</td>
<td>Myeloid sarcoma, in relapse</td>
</tr>
<tr>
<td>238.1</td>
<td>Neoplasm of uncertain behavior of connective and other soft tissue</td>
</tr>
<tr>
<td>258.01</td>
<td>Multiple endocrine neoplasia [MEN] type I</td>
</tr>
<tr>
<td>259.2</td>
<td>Carcinoid syndrome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>273.3</td>
<td>Macroglobulinemia — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>277.31</td>
<td>Familial Mediterranean fever — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>282.41</td>
<td>Sickle-cell thalassemia without crisis</td>
</tr>
<tr>
<td>282.42</td>
<td>Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, S17.3)</td>
</tr>
<tr>
<td>282.43</td>
<td>Alpha thalassemia</td>
</tr>
<tr>
<td>282.44</td>
<td>Beta thalassemia</td>
</tr>
<tr>
<td>282.45</td>
<td>Delta-beta thalassemia</td>
</tr>
<tr>
<td>282.46</td>
<td>Thalassemia minor</td>
</tr>
<tr>
<td>282.47</td>
<td>Hemoglobin E-beta thalassemia</td>
</tr>
<tr>
<td>286.4</td>
<td>Von Willebrand’s disease</td>
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<td>334.0</td>
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<tr>
<td>356.1</td>
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<td>Conductive hearing loss, tympanic membrane</td>
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<tr>
<td>389.04</td>
<td>Conductive hearing loss, inner ear</td>
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<tr>
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CCI Version 20.0

84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81405

Molecular pathology procedure, Level 6 (e.g., analysis of 6-10 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 11-25 exons, regionally targeted cytogenomic array analysis)

Explanation
These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

Coding Tips
This code has been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range for this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
 exon. One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene’s function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
variant. Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
**81406-81408**

**81406**  Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia)

**81407**  Molecular pathology procedure, Level 8 (eg, analysis of 26-50 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of >50 exons, sequence analysis of multiple genes on one platform)

**81408**  Molecular pathology procedure, Level 9 (eg, analysis of >50 exons in a single gene by DNA sequence analysis)

**Explanation**
These tests are used to analyze nucleic acid for abnormalities that may be indicative of a variety of disorders. Cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection are included in the molecular pathology procedure codes. Any procedures prior to cell lysis may be reported separately. Code selection is dependent upon the gene and the specific mutation examined. Specimens may vary. The gene and type of mutation that are being analyzed are identified as molecular pathology levels one through nine. For the specific gene mutation assignment, reference the code description in the CPT manual.

**Coding Tips**
These codes have been revised for 2014 in the official CPT description. Any procedures prior to cell lysis may be reported separately. When the analyte being tested is not identified by a tier 1 or 2 molecular pathology code, report the appropriate codes from the 81200-81479 range to report this service. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452. Analyte-specific molecular pathology procedure are not reported separately when the specific analytes are included as part of the microarray analysis of the X chromosome. Do not report molecular cytogenetics (88271) additionally when performed. Code 81406 in conjunction with 81280 when KCNH2 or KCNQ1 full gene sequence is performed.

**Terms To Know**
- **exon.** One of multiple nucleic acid sequences used to encode information for a gene polypeptide or protein. Exons are separated from other exons by non-protein-coding sequences known as introns.
- **variant.** Nucleotide deviation from the normal sequence of a region. Variations are usually either substitutions or deletions. Substitution variations are the result of one nucleotide taking the place of another. A deletion occurs when one or more nucleotides are left out. In some cases, several in a reasonably close proximity on the same chromosome in a DNA strand. These variations result in amino acid changes in the protein made by the gene. However, the term variant does not itself imply a functional change. Intron variations are usually described in one of two ways: 1) the changed nucleotide is defined by a plus or a minus sign indicating the position relative to the first or last nucleotide to the intron, or 2) the second variant description is indicated relative to the last nucleotide of the preceding exon or first nucleotide of the following exon.

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**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
84311, 88271-88275, 88291, 88365-88368
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Work Value</th>
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<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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Oncology (ovarian), biochemical assays of two proteins (CA-125 and HE4), utilizing serum, with menopausal status, algorithm reported as a risk score

Oncology (ovarian), biochemical assays of five proteins (CA-125, apolipoprotein A1, beta-2 microglobulin, transferrin, and pre-albumin), utilizing serum, algorithm reported as a risk score

**Explanation**
Multianalyte assays with algorithmic analyses (MAAA) are procedures that are typically performed by a single clinical laboratory or manufacturer. These analyses utilize results obtained from assays of various types, including molecular pathology, fluorescent in situ hybridization, and non-nucleic-acid-based assays, to perform proprietary analysis using the results, as well as other patient information, to assess risk. This risk factor is reported typically as a numeric score(s) or as a probability. Report 81500 for the Risk of Ovarian Malignancy Algorithm analysis, also known as ROMA, which utilizes the results of CA-125 and HE4 tests in the algorithm. Report 81503 when the OVA1 analysis, utilizing CA-125, apolipoprotein A1, beta-2 microglobulin, transferrin, and pre-albumin tests in the algorithm, is performed.

**Coding Tips**
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. Services performed prior to cell lysis such as laser or microdissection (88380–88381) may be reported separately. These codes should not be reported in conjunction to constituent tests for CA 125 (86304) or HE4 (86305). For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

**Terms To Know**
DNA. Deoxyribonucleic acid.

Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

RNA. Ribonucleic acid.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>183.0</td>
<td>Malignant neoplasm of ovary — (Use additional code to identify any functional activity)</td>
</tr>
<tr>
<td>198.6</td>
<td>Secondary malignant neoplasm of ovary</td>
</tr>
<tr>
<td>220</td>
<td>Benign neoplasm of ovary — (Use additional code to identify any functional activity: 256.0-256.1)</td>
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</tbody>
</table>

**CCI Version 20.0**

86304
Also not with 81500: 86305
Also not with 81503: 82172, 82232, 84134, 84466

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
81504

Oncology (tissue of origin), microarray gene expression profiling of > 2000 genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as tissue similarity scores

Explanation
Gene expression profiling, also known as the tissue of origin (TOO) test, is used to evaluate the site of origin in a secondary malignancy metastasized from an unknown primary and also to distinguish primary from secondary tumors. A formalin-fixed paraffin embedded (FFPE) tissue sample from the tumor is analyzed using microarray technology. The tissue's RNA expression patterns are compared to other RNA expressions of common malignancies contained in the database. The more similar the tissue, the higher the similarity score. The higher the similarity score, the more likely that type of malignancy is the tissue of origin.

Coding Tips
This code is new for 2014. If specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
gene. Basic unit of heredity that contains nucleic acid. Genes are arranged in different and unique sequences or strings that determine the gene's function. Human genes usually include multiple protein coding regions such as exons separated by introns which are nonprotein coding sections.
microarray. Small surface onto which multiple specific nucleic acid sequences can be attached to be used for analysis. Microarray may also be known as a gene chip or DNA chip. Tests can be run on the sequences for any variants that may be present.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
81161-81282, 81290-81355, 81400-81408, 84311, 88271-88275, 88291, 88365-88368, G0452
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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81506

81506  Endocrinology (type 2 diabetes), biochemical assays of seven analytes (glucose, HbA1c, insulin, hs-CRP, adiponectin, ferritin, interleukin 2-receptor alpha), utilizing serum or plasma, algorithm reporting a risk score

Explanation
Multianalyte assays with algorithmic analyses (MAAA) are procedures that are typically performed by a single clinical laboratory or manufacturer. These analyses utilize results obtained from assays of various types, including molecular pathology, fluorescent in situ hybridization, and non-nucleic-acid-based assays. Proprietary analysis, using the results as well as other patient information, is performed by the laboratory or manufacturer and reported typically as a numeric score(s) or as a probability. Report this code for the PreDx Diabetes Risk Score analysis utilizing the results of glucose, HbA1c, insulin, hs-CRP, adiponectin, ferritin, and interleukin 2-receptor alpha analytes in the algorithm.

Coding Tips
This code includes all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. When only the interpretation is performed, append modifier 26 Professional component, to the code. This code should not be reported in conjunction to constituent tests for ferritin (82728), glucose (82947), glycosylated A1C (83036), total insulin (83525), hsCRP (86141), interleukin 2-receptor alpha (83520), or adiponectin (84999). For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
diabetes mellitus. Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

ICD-9-CM Diagnostic Codes
V82.89  Special screening for other specified conditions
V83.89  Other genetic carrier status
V84.89  Genetic susceptibility to other disease
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
82728, 82947, 83036, 83525, 86141
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Fetal aneuploidy (trisomy 21, 18, and 13) DNA sequence analysis of selected regions using maternal plasma, algorithm reported as a risk score for each trisomy.

Explanation
Fetal aneuploidy is a condition in which the fetus’ DNA has an abnormal number of chromosomes. Approximately 3 to 13 percent of the total cell free DNA in the mother’s bloodstream belongs to the fetus and is thought to be derived from the placenta. In 81507, the mother’s plasma is screened using a highly sensitive microassay known as massively parallel genomic sequencing to detect trisomy 13, 18, and 21 as early as the tenth week of pregnancy. The probability that the fetus has any of the chromosomal abnormalities being screened for is generated for each abnormality in the form of a risk score.

Coding Tips
This code is new for 2014. If specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
DNA. Deoxyribonucleic acid.
plasma. Liquid portion of the blood, lymph, or milk.
trisomy 13. Congenital chromosome disease causing mental retardation and craniofacial, cardiac, ocular, and/or cerebral defects.

ICD-9-CM Diagnostic Codes
V82.89 Special screening for other specified conditions
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
81161-81282, 81290-81355, 81400-81408, 84311, 88271-88275, 88291, 88365-88368, G0452
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Fetal congenital abnormalities, biochemical assays of two proteins (PAPP-A, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score

Fetal congenital abnormalities, biochemical assays of three proteins (PAPP-A, hCG [any form], DIA), utilizing maternal serum, algorithm reported as a risk score

Fetal congenital abnormalities, biochemical assays of three analytes (AFP, uE3, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score

Fetal congenital abnormalities, biochemical assays of four analytes (AFP, uE3, any form of hCG, DIA) utilizing maternal serum, algorithm reported as a risk score (may include additional results from previous biochemical testing)

Fetal congenital abnormalities, biochemical assays of five analytes (AFP, uE3, total hCG, hyperglycosylated hCG, DIA) utilizing maternal serum, algorithm reported as a risk score

Explanation
These analyses utilize results obtained from assays of various types, including molecular pathology, fluorescent in situ hybridization, and non-nucleic acid based assays. Analysis, using the results as well as other patient information, is then performed and reported typically as a numeric score(s) or as a probability. Report 81508 or 81509 for analyses utilizing proteins in the algorithm. Code 81508 represents two proteins (PAPP-A and any form of hCG). Code 81509 includes three proteins (PAPP-A, DIA, and any form of hCG). Report 81510, 81511, or 81512 when the analyses use analytes in the algorithm. Code 81510 is reported for three analytes (AFP, uE3, and any form of hCG); 81511 is reported for four analytes (AFP, uE3, any form of hCG and DIA), and 81512 is reported for five analytes (AFP, uE3, total hCG, DIA, and hyperglycosylated hCG).

Coding Tips
These codes include all analytical services that are required to perform the assay, including cell lysis, nucleic acid stabilization, extraction, digestion, amplification, and detection. Do not report hCG in conjunction with these codes. Do not report PAPP-A (84163) in conjunction with 81508 or 81509. Additionally do not report inhibin A with 81509. Do not report amylase (82150), estriol (82677) in conjunction with 81510. Do not report amylase (82105), estriol (82677), or inhibin A (86336) with 81511 or 81512. For physician interpretation and reporting of molecular pathology procedures performed on Medicare patients, see HCPCS Level II code G0452.

Terms To Know
Congenital anomaly. Abnormality that is present at birth that may be the result of genetic factors, teratogens, or other conditions that affect the fetus in utero. The abnormalities may be readily apparent at birth or may remain undiscovered until some point after birth.

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82000

82000  Acetaldehyde, blood

Explanation
This test is commonly ordered as acetaldehyde level. It is used to measure ethanol exposure/ingestion as ethanol is converted to acetaldehyde by alcohol dehydrogenase. Methodology is gas-liquid chromatography (GLC).

Coding Tips
If an analyte from multiple specimens measured that is obtained from different sources, or specimens obtained at different times, each may be reported separately for each source/specimen. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
analyte. Any material or chemical substance subjected to analysis.
 specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
277.81 Primary carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.82 Carnitine deficiency due to inborn errors of metabolism — (Use additional code to identify any associated intellectual disabilities)
277.83 Iatrogenic carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.84 Other secondary carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.89 Other specified disorders of metabolism — (Use additional code to identify any associated intellectual disabilities)
277.9 Unspecified disorder of metabolism — (Use additional code to identify any associated intellectual disabilities)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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**82009-82010**

**82009**  
Ketone body(s) (eg, acetone, acetoacetic acid, beta-hydroxybutyrate); qualitative

**82010**  
quantitative

**Explanation**

These tests are also referred to as blood ketone analysis, serum ketone, plasma ketone, beta-hydroxybutyrate, acetone, acetoacetic acid, or blood nitroprusside reaction. Method is nitroprusside reaction (colorimetry). These tests are usually performed to screen for, detect, and monitor for diabetic ketoacidosis. This condition may also be present in starvation, alcoholism, and high-fat low-carbohydrate diets. Qualitative analysis (82009) tests for the presence of acetone or other ketone bodies while quantitative analysis (82010) measures the amount of acetone or other ketone bodies.

**Coding Tips**

Code 82010 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
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<td>Secondary diabetes mellitus without mention of complication, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V85.67)</td>
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<td>249.01</td>
<td>Secondary diabetes mellitus without mention of complication, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>249.10</td>
<td>Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>249.11</td>
<td>Secondary diabetes mellitus with ketoacidosis, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>250.10</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.11</td>
<td>Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.12</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, uncontrolled</td>
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<td>250.13</td>
<td>Diabetes with ketoacidosis, type I [juvenile type], uncontrolled</td>
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<tr>
<td>276.2</td>
<td>Acidosis — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>303.00</td>
<td>Acute alcoholic intoxication, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.01</td>
<td>Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.02</td>
<td>Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>Other and unspecified alcohol dependence, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.91</td>
<td>Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>Nondependent alcohol abuse, episodic</td>
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<td>Loss of weight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)</td>
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<td>980.0</td>
<td>Toxic effect of ethyl alcohol — (Use additional code to specify the nature of the toxic effect. Use additional code to identify any associated: 291.4, 303.0, 305.0)</td>
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<tr>
<td>980.2</td>
<td>Toxic effect of isopropyl alcohol — (Use additional code to specify the nature of the toxic effect)</td>
</tr>
<tr>
<td>994.2</td>
<td>Effects of hunger</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4, 16, 70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
82013

82013 Acetylcholinesterase

Explanation
This test is also referred to as red blood cell (RBC) acetylcholinesterase, erythrocytic cholinesterase, or true cholinesterase. Method is colorimetric or spectrophotometric rate of hydrolysis determination. This test may be performed to determine certain RBC disorders such as thalassemias, spherocytosis, and other anemias. It may also be used to determine toxicity or exposure to certain insecticides. The presence of acetylcholinesterase activity and increased alpha-fetoprotein in amniotic fluid are presumptive evidence of an open neural tube defect in the fetus.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
amniocentesis. Surgical puncture through the abdominal wall, with a specialized needle and under ultrasonic guidance, into the interior of the pregnant uterus and directly into the amniotic sac to collect fluid for diagnostic analysis or therapeutic reduction of fluid levels.
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
thalassemia. Group of inherited disorders of hemoglobin metabolism causing mild to severe anemia. It is usually found in people of Mediterranean, black, Chinese, or Asian descent. Report thalassemia with a code from ICD-9-CM subcategory 282.4.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
282.0 Hereditary spherocytosis
282.42 Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
285.8 Other specified anemias
285.9 Unspecified anemia
971.0 Poisoning by parasympathomimetcs (cholinergics) — (Use additional code to specify the effects of poisoning)

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82016-82017
82016  Acylcarnitines; qualitative, each specimen
82017  quantitative, each specimen

Explanation
These tests may be requested as qualitative acylcarnitine (carnitine esters) and quantitative acylcarnitine (carnitine esters). Acylcarnitine is a condensation product formed from carboxylic acid and carnitine. It has a variety of metabolic roles and may be an indicator of inborn errors of metabolism, chronic disease, or acute and critical illness. Methods include enzymatic, chromatography, and mass-spectrometry. Qualitative analysis (82016) tests for the presence of acylcarnitine while quantitative analysis (82017) measures the amount of acylcarnitine.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
277.81  Primary carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.82  Carnitine deficiency due to inborn errors of metabolism — (Use additional code to identify any associated intellectual disabilities)
277.83  Iatrogenic carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.84  Other secondary carnitine deficiency — (Use additional code to identify any associated intellectual disabilities)
277.85  Disorders of fatty acid oxidation — (Use additional code to identify any associated intellectual disabilities)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0
Also not with 82017: 82016
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Adrenocorticotropic hormone (ACTH)

Explanation
This test is also referred to as adrenocorticotropic hormone (ACTH) or corticotropin. Method is radioimmunoassay. This test may be performed to determine the presence of Cushing's disease, depression, or pheochromocytoma, among other conditions.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
 assay. Test of purity.
Cushing's syndrome. Abdominal striae, acne, hypertension, decreased carbohydrate tolerance, moon face, obesity, protein catabolism, and psychiatric disturbances resulting from increased adrenocortical secretion of cortisol caused by ACTH-dependent adrenocortical hyperplasia or tumor, or by effects of steroids.
hyperplasia. Abnormal proliferation in the number of normal cells in regular tissue arrangement.
steroids. Hormonal substances with a similar basic chemical structure, produced mainly in the adrenal cortex and gonads.

ICD-9-CM Diagnostic Codes
194.0 Malignant neoplasm of adrenal gland
253.0 Acromegaly and gigantism
253.2 Panhypopituitarism
253.7 Iatrogenic pituitary disorders — (Use additional E code to identify cause)
255.0 Cushing's syndrome — (Use additional E code to identify cause, if drug-induced)
255.2 Adrenogenital disorders
255.3 Other corticoadrenal overactivity
255.41 Glucocorticoid deficiency
255.42 Mineralocorticoid deficiency
255.5 Other adrenal hypofunction
296.20 Major depressive disorder, single episode, unspecified — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

<table>
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<td>Adrenocorticotropic hormone (ACTH)</td>
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<tr>
<td>296.21</td>
<td>Major depressive disorder, single episode, mild — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Major depressive disorder, single episode, moderate — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.23</td>
<td>Major depressive disorder, single episode, severe, without mention of psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>Major depressive disorder, single episode, severe, specified as with psychotic behavior — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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<td>296.25</td>
<td>Major depressive disorder, single episode, in partial or unspecified remission — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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82040-82045
82040 Albumin; serum, plasma or whole blood
82042 urine or other source, quantitative, each specimen
82043 urine, microalbumin, quantitative
82044 urine, microalbumin, semiquantitative (eg, reagent strip assay)
82045 ischemia modified

Explanation
The test reported with code 82040 measures the concentration of albumin in serum, plasma, or whole blood. It is often used to determine nutritional status, renal disease, and other chronic diseases, particularly those involving the kidneys or liver. A blood sample is typically drawn from a vein in the hand or forearm. The skin over the vein is cleaned with an antiseptic, and a tourniquet is wrapped around the upper arm to enlarge the lower arm veins by restricting the blood flow. A thin needle is inserted into the vein, the tourniquet is removed, and blood flows from the vein through the needle and is collected into a vial or syringe. The needle is withdrawn and the puncture site covered to prevent bleeding. The blood sample is sent to the laboratory for testing. Report 82042 when a quantitative analysis for albumin on urine, CSF, or amniotic fluid is performed. Urine tests are usually performed on a 24-hour urine specimen to measure protein loss of patients with hypoalbuminemia. Patients typically perform specimen collection over a 24-hour period. Method is colorimetry and the test is performed using nephelometry. Amniotic fluid analysis is usually performed by autoanalyzer. "Microalbuminuria" is defined as albuminuria of 30 to 300 mg/24 hours and is requested to determine early increase of proteinuria, usually in diabetes and in pre-eclampsia before protein becomes evident by conventional urinalysis. Patients commonly perform specimen collection of urine over a 24-hour period. Methods include radioimmunoassay (RIA) or enzyme-linked immunosorbent assay (ELISA). Report 82043 for a quantitative analysis; 82044 for a semiquantitative test. Report 82045 for an ischemia modified albumin (IMA), a blood assay that measures cobalt albumin binding. In the presence of myocardial ischemia, there is decreased ability of the N-terminal region of human albumin to bind cobalt. This test may also be requested as Co(II)-albumin binding assay. Method is colorimetric assay with results recorded in absorbance units (ABSU). The test is used to detect early onset unstable angina and myocardial infarction.

Coding Tips
Codes 82040, 82043, and 82044 represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. For amniotic fluid specimen, a separately reportable amniocentesis is performed. For CNS evaluation, a separately reportable lumbar puncture is performed. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
albumin. Most prevalent protein in blood plasma, synthesized in the liver, serving as a transport protein for larger anions, like bilirubin and fatty acids, and also for some hormones. Decreased levels in serum samples can indicate malnutrition, acute inflammation, and serious liver and kidney disease. Microalbumin is used to detect early signs of proteinuria in diabetes and suspected preeclampsia. Report CPT codes 82040-82045 for albumin chemistry tests.

amniocentesis. Surgical puncture through the abdominal wall, with a specialized needle and under ultrasonic guidance, into the interior of the pregnant uterus and directly into the amniotic sac to collect fluid for diagnostic analysis or therapeutic reduction of fluid levels.

ultrasound. Imaging using ultra-high sound frequency bounced off body structures.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOD References
100-2,11,30,2,2; 100-4,16,40,6,1; 100-4,16,70,8

CCI Version 20.0
Also not with 82043: 82044
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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ICD-9-CM Diagnostic Codes

Areas, which cause the liver to stop functioning over time.

Disease of the liver that has the characteristics of intertwining band cirrhosis.

Coding Tips

Code 82055 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work require the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.

ICD-9-CM Diagnostic Codes

Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
Acute hepatitis C with hepatic coma
Acute hepatitis C without mention of hepatic coma
Alcohol withdrawal delirium

Coding and Payment Guide for Laboratory Services

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<td>breath</td>
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<tr>
<td>303.00</td>
<td>Acute alcoholic intoxication, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.01</td>
<td>Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<tr>
<td>303.02</td>
<td>Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<tr>
<td>303.03</td>
<td>Acute alcoholic intoxication, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>Other and unspecified alcohol dependence, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>305.00</td>
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<td>571.2</td>
<td>Alcoholic cirrhosis of liver</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-4,16,70.8

CCI Version 20.0

No CCI Edits apply to this code.
Aldosterone

Explanation
For serum aldosterone, blood is obtained by post-fasting venipuncture. Extreme care must be taken in preparing the patient before specimen collection and handling the specimen in order to obtain an accurate measurement. Blood specimens are usually taken early in the morning and a notation is made as to whether the patient was sitting or supine. A second test may be performed approximately four hours later. A radioimmunoassay (RIA) is typically employed for analysis of the specimen. This test is most commonly used in the diagnosis of specific types of adrenal adenomas, or secondary aldosteronism caused by cirrhosis, congestive heart failure, nephrosis, potassium loading, toxemia of pregnancy, and other states of contraction of plasma volume. Urine aldosterone requires a 24-hour non-fasting urine specimen. The patient flushes the first urine of the day. All voided urine for the next 24 hours is collected. Method is radioimmunoassay.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
nephrosis. Nephrotic syndrome characterized by proteinuria more than 3.5 g/100 ml, hypoalbuminemia less than 3.0 g/100 ml, hyperlipemia (cholesterol greater than 300 mg/100ml), massive edema, and intercurrent infections. Nephrosis is usually due to some form of glomerulonephritis. It may progress to chronic renal failure. Report diagnosis codes from ICD-9-CM category 581, depending on the conditions. Synonym(s): epimembranous nephritis, Epstein's syndrome, nephrotic syndrome.
nephrotic syndrome. Condition where levels of albumin in the blood and urine are far below the norm.

ICD-9-CM Diagnostic Codes
255.10 Hyperaldosteronism, unspecified
255.11 Glucocorticoid-remediable aldosteronism
255.12 Conn's syndrome
255.13 Bartter's syndrome
255.14 Other secondary aldosteronism
398.91 Rheumatic heart failure (congestive)

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</table>

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The test reported with code 82103 is used to detect hereditary decreases in the production of alpha1-antitrypsin, chronic obstructive lung disease, or liver disease. This test may also be requested as A1 AT, AAT, Acute Phase Proteins, or -1-Antitrypsin. Method is by radial immunodiffusion (RID), or nephelometry. For a phenotype, reported with 82104, the test may also be requested as A1AT phenotype, AAT phenotype, and Pi phenotype. This test is used to detect hereditary decreases in the production of alpha1-antitrypsin by specific phenotype. There are more than 75 inherited variants of AAT. Two variants, Pi ZZ and Pi SZ phenotypes, represent severe deficiencies and are associated with chronic obstructive lung disease, liver disease, and hepatoma. Method is by radial immunodiffusion (RID).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- cirrhosis: Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
- emphysema: Pathological condition in which there is destructive enlargement of the air spaces in the lungs resulting in damage to the alveolar walls, commonly seen in long-term smokers.
- hepatoma: Tumor of the liver. Synonym(s): hepatoblastoma, liver carcinoma.
- phenotype: Physical expression of a trait or characteristic as determined by an individual’s genetic makeup or genotype.

ICD-9-CM Diagnostic Codes
- 155.0  Malignant neoplasm of liver, primary
- 155.1  Malignant neoplasm of intrahepatic bile ducts
- 155.2  Malignant neoplasm of liver, not specified as primary or secondary
- 277.6  Other deficiencies of circulating enzymes — (Use additional code to identify any associated intellectual disabilities)
- 492.8  Other emphysema
- 571.2  Alcoholic cirrhosis of liver
- 571.5  Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)

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CCI Version 20.0
No CCI Edits apply to this code.
ICD-9-CM Diagnostic Codes

070.22 Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
070.23 Viral hepatitis B with hepatic coma, chronic, with hepatitis delta
070.32 Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.33 Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta
070.44 Chronic hepatitis C with hepatic coma
070.54 Chronic hepatitis C without mention of hepatic coma
095.3 Syphilis of liver
121.1 Clonorchiasis
121.3 Fascioliasis
155.0 Malignant neoplasm of liver, primary
155.1 Malignant neoplasm of intrahepatic bile ducts
164.2 Malignant neoplasm of anterior mediastinum
164.3 Malignant neoplasm of posterior mediastinum
183.0 Malignant neoplasm of ovary — (Use additional code to identify any functional activity)
186.0 Malignant neoplasm of undescended testis — (Use additional code to identify any functional activity)
197.7 Secondary malignant neoplasm of liver
198.6 Secondary malignant neoplasm of ovary
211.5 Benign neoplasm of liver and biliary passages
272.2 Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)
273.4 Alpha-1-antitrypsin deficiency — (Use additional code to identify any associated intellectual disabilities)
277.00 Cystic fibrosis without mention of meconium ileus — (Use additional code to identify any associated intellectual disabilities)
277.03 Cystic fibrosis with gastrointestinal manifestations — (Use additional code to identify any associated intellectual disabilities)
285.0 Sideroblastic anemia — (Use additional E code to identify cause, if drug-induced)
338.3 Neoplasm related pain (acute) (chronic) — (Use additional code to identify pain associated with psychological factors: 307.89)
571.2 Alcoholic cirrhosis of liver
571.41 Chronic persistent hepatitis
571.42 Autoimmune hepatitis
571.5 Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.25

CCI Version 20.0
Also not with 82105: 80500-80502
Also not with 82106: 80500-80502
Also not with 82107: 82105
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Explanation
This test may be abbreviated as Al. The test is used to monitor patients at risk for aluminum toxicity due to exposure or disease states, which cause aluminum accumulation (e.g., chronic renal failure). Blood specimen is obtained by venipuncture. A random urine sample is obtained. Method is atomic absorption spectrophotometry (AAS).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

268.2 Osteomalacia, unspecified
284.81 Red cell aplasia (acquired) (adult) (with thymoma)
285.1 Acute posthemorrhagic anemia
285.21 Anemia in chronic kidney disease
285.22 Anemia in neoplastic disease
292.2 Pathological drug intoxication — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
348.31 Metabolic encephalopathy
359.4 Toxic myopathy — (Use additional E code to identify toxic agent)
428.1 Left heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
429.3 Cardiomegaly
585.1 Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.2 Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.3 Chronic kidney disease, Stage III (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.4 Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.5 Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
585.6 End stage renal disease — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)
588.0 Renal osteodystrophy
588.81 Secondary hyperparathyroidism (of renal origin)
733.10 Pathologic fracture, unspecified site
733.11 Pathologic fracture of humerus
733.12 Pathologic fracture of distal radius and ulna
733.13 Pathologic fracture of vertebrae
733.14 Pathologic fracture of neck of femur
733.15 Pathologic fracture of other specified part of femur
733.16 Pathologic fracture of tibia and fibula
733.19 Pathologic fracture of other specified site
780.31 Febrile convulsions (simple), unspecified
780.39 Other convulsions
784.3 Aphasia
965.1 Poisoning by salicylates — (Use additional code to specify the effects of poisoning)
985.8 Toxic effect of other specified metals — (Use additional code to specify the nature of the toxic effect)
996.73 Other complications due to renal dialysis device, implant, and graft — (Use additional code to identify complication: 338.18-338.19, 338.28-338.29)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
82120

82120  Amines, vaginal fluid, qualitative

**Explanation**
This test is administered to determine the specific cause of vaginitis and may be performed following negative testing for yeasts or trichomonas. Disturbances in normal anaerobic flora are usually the etiological source. A saline wet slide is prepared and characteristic cells are identified microscopically, namely epithelial cells with bacilli clinging to the surfaces. A solution of potassium hydroxide (KOH) is added to the mount to activate amines. A characteristic odor is released when amines are present and become volatile.

**Coding Tips**
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
- **anaerobic.** Atmospheric or dissolved oxygen is not available.
- **epithelial tissue.** Cells arranged in sheets that cover internal and external body surfaces that can absorb, protect, and/or secrete and includes the protective covering for external surfaces (skin), absorptive linings for internal surfaces such as the intestine, and secreting structures such as salivary or sweat glands.
- **KOH.** Potassium hydroxide.

**ICD-9-CM Diagnostic Codes**
- 091.0  Genital syphilis (primary)
- 095.8  Other specified forms of late symptomatic syphilis
- 098.0  Gonococcal infection (acute) of lower genitourinary tract
- 098.2  Gonococcal infections, chronic, of lower genitourinary tract
- 099.2  Granuloma inguinale
- 099.53 Chlamydia trachomatis infection of lower genitourinary sites — (Use additional code to specify site of infection: S95.4, 616.0, 616.11)
- 616.0  Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
- 616.10 Unspecified vaginitis and vulvovaginitis — (Use additional code to identify organism, such as: 041.00-041.09, 041.10-041.19, 041.41-041.49)
- 616.11 Vaginitis and vulvovaginitis in diseases classified elsewhere — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19) (Code first underlying disease: 127.4)
- 616.81 Mucositis (ulcerative) of cervix, vagina, and vulva — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19) (Use additional E code to identify adverse effects of therapy: E879.2, E930.7, E933.1)

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ICD-9-CM Diagnostic Codes

271.0 Glycogenosis — (Use additional code to identify any associated intellectual disabilities)
271.1 Galactosemia — (Use additional code to identify any associated intellectual disabilities)
271.2 Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)
271.3 Intestinal disaccharidase deficiencies and disaccharide malabsorption — (Use additional code to identify any associated intellectual disabilities)
271.4 Renal glycosuria — (Use additional code to identify any associated intellectual disabilities)
271.5 Pure hypercholesterolemia — (Use additional code to identify any associated intellectual disabilities)
271.7 Lipidoses — (Use additional code to identify any associated intellectual disabilities)

272.0 Lipoprotein deficiencies — (Use additional code to identify any associated intellectual disabilities)
272.1 Lipodystrophy — (Use additional code to identify any associated intellectual disabilities)
272.2 Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)
272.3 Hyperchylomicronemia — (Use additional code to identify any associated intellectual disabilities)
272.4 Disorders of bilirubin excretion — (Use additional code to identify any associated intellectual disabilities)
272.5 Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
272.6 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)
272.7 Disorders of copper metabolism — (Use additional code to identify any associated intellectual disabilities)
272.8 Disorders of phosphorus metabolism — (Use additional code to identify any associated intellectual disabilities)
272.9 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)

273.0 Polyclonal hypergammaglobulinemia — (Use additional code to identify any associated intellectual disabilities)
273.1 Monoclonal paraproteinemia — (Use additional code to identify any associated intellectual disabilities)
273.2 Macroglobulinemia — (Use additional code to identify any associated intellectual disabilities)
273.3 Acute gouty arthropathy — (Use additional code to identify any associated intellectual disabilities)
273.4 Chronic gouty arthropathy without mention of tophus (tophi) — (Use additional code to identify any associated intellectual disabilities)
273.5 Chronic gouty arthropathy with tophus (tophi) — (Use additional code to identify any associated intellectual disabilities)
273.6 Disorders of copper metabolism — (Use additional code to identify any associated intellectual disabilities)
273.7 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)
273.8 Disorders of phosphorus metabolism — (Use additional code to identify any associated intellectual disabilities)
273.9 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)
274.01 Acute hypercalcemia — (Use additional code to identify any associated intellectual disabilities)
274.02 Chronic hypercalcemia — (Use additional code to identify any associated intellectual disabilities)
274.03 Hypercalcemia — (Use additional code to identify any associated intellectual disabilities)
274.11 Uric acid nephrolithiasis — (Use additional code to identify any associated intellectual disabilities)
275.01 Hereditary hemorrhagic telangiectasia — (Use additional code to identify any associated intellectual disabilities)
275.02 Hemochromatosis due to repeated red blood cell transfusions — (Use additional code to identify any associated intellectual disabilities)
275.1 Disorders of copper metabolism — (Use additional code to identify any associated intellectual disabilities)
275.2 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)
275.3 Disorders of phosphorus metabolism — (Use additional code to identify any associated intellectual disabilities)
275.41 Hypocalcemia — (Use additional code to identify any associated intellectual disabilities)
275.42 Hypercalcemia — (Use additional code to identify any associated intellectual disabilities)
277.00 Cystic fibrosis without mention of meconium ileus — (Use additional code to identify any associated intellectual disabilities)
277.01 Cystic fibrosis with meconium ileus — (Use additional code to identify any associated intellectual disabilities)
277.1 Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
277.2 Disorders of bilirubin excretion — (Use additional code to identify any associated intellectual disabilities)
277.3 Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
277.4 Disorders of bilirubin excretion — (Use additional code to identify any associated intellectual disabilities)
277.5 Mucopolysaccharidosis — (Use additional code to identify any associated intellectual disabilities)
277.81 Primary carniupic deficiency — (Use additional code to identify any associated intellectual disabilities)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder for applicable diagnoses.

CCI Version 20.0

No CCI Edits apply to this code.
**Explanation**

These tests may be requested as specific amino acids (e.g., cystine, tyrosine, methionine, propionic acid). Method is ion-exchange chromatography. This test measures (quantifies) amounts of multiple specified amino acids. Report 82136 for two to five amino acids. Report 82139 for six or more.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

- 066.0 Phlebotomus fever — (Use additional code to identify any associated meningitis: 321.2)
- 249.10 Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)
- 249.11 Secondary diabetes mellitus with ketoacidosis, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)
- 250.10 Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled
- 250.11 Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled
- 250.12 Diabetes with ketoacidosis, type II or unspecified type, uncontrolled
- 250.13 Diabetes with ketoacidosis, type I [juvenile type], uncontrolled
- 255.3 Other corticoadrenal overactivity
- 270.0 Disturbances of amino-acid transport — (Use additional code to identify any associated intellectual disabilities)
- 271.2 Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)
- 331.81 Reye's syndrome — (Use additional code, where applicable, to identify dementia: 294.10, 294.11)
- 333.4 Huntington's chorea
- 581.9 Nephrotic syndrome with unspecified pathological lesion in kidney
- 584.5 Acute kidney failure with lesion of tubular necrosis
- 584.6 Acute kidney failure with lesion of renal cortical necrosis
- 584.8 Acute kidney failure with other specified pathological lesion in kidney
- 584.9 Acute kidney failure, unspecified
- 586 Unspecified renal failure
- 642.60 Eclampsia complicating pregnancy, childbirth or the puerperium, unspecified as to episode of care
- 642.61 Eclampsia, with delivery
- 642.62 Eclampsia, with delivery, with current postpartum complication
- 642.63 Eclampsia, antepartum
- 642.64 Eclampsia, postpartum condition or complication
- 642.70 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care
- 642.71 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery
- 642.72 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication
- 642.73 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, antepartum
- 642.74 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, postpartum condition or complication
- 714.0 Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)
- 714.1 Felty's syndrome
- 714.2 Other rheumatoid arthritis with visceral or systemic involvement
- 714.30 Polyarticular juvenile rheumatoid arthritis, chronic or unspecified
- 714.31 Polyarticular juvenile rheumatoid arthritis, acute
- 714.32 Pauciarticular juvenile rheumatoid arthritis
- 714.33 Monoarticular juvenile rheumatoid arthritis
- 714.4 Chronic postrheumatic arthropathy
- 714.81 Rheumatoid lung
- 714.89 Other specified inflammatory polyarthropathies
- 714.9 Unspecified inflammatory polyarthropathy
- 780.60 Fever, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

83090

Also not with 82136: 82139

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Ammonia

Explanation
This test may be requested as NH3. Elevated levels may indicate that the liver is not able to detoxify ammonia from the blood due to severe liver disease. A number of methods are used including enzymatic, resin enzymatic, and ion-selective electrode (ISE).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
155.0 Malignant neoplasm of liver, primary
155.1 Malignant neoplasm of intrahepatic bile ducts
155.2 Malignant neoplasm of liver, not specified as primary or secondary
197.7 Secondary malignant neoplasm of liver
211.5 Benign neoplasm of liver and biliary passages
230.8 Carcinoma in situ of liver and biliary system
235.3 Neoplasm of uncertain behavior of liver and biliary passages
239.0 Neoplasm of unspecified nature of digestive system
570 Acute and subacute necrosis of liver
571.0 Alcoholic fatty liver
571.1 Acute alcoholic hepatitis
571.2 Alcoholic cirrhosis of liver
571.3 Unspecified alcoholic liver damage
571.40 Unspecified chronic hepatitis
571.41 Chronic persistent hepatitis
571.49 Other chronic hepatitis
571.5 Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
571.6 Biliary cirrhosis
571.8 Other chronic nonalcoholic liver disease
571.9 Unspecified chronic liver disease without mention of alcohol
572.0 Abscess of liver
572.1 Portal pyemia
572.2 Hepatic encephalopathy
572.3 Portal hypertension — (Use additional code for any associated complications, such as: portal hypertensive gastropathy (537.89))
572.4 Hepatorenal syndrome
572.8 Other sequelae of chronic liver disease
573.0 Chronic passive congestion of liver
573.1 Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)
573.2 Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)
573.3 Unspecified hepatitis — (Use additional E code to identify cause)
573.4 Hepatic infarction
573.8 Other specified disorders of liver
573.9 Unspecified disorder of liver
790.91 Abnormal arterial blood gases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
82143 Amniotic fluid scan (spectrophotometric)

Explanation
This prenatal procedure may be requested as an amniotic fluid spectral analysis, Lily test, and amniotic fluid OD 450 spectral analysis. Amniotic fluid is collected by amniocentesis and the specimen is protected from exposure to light. A separately reported ultrasound is performed to determine the exact location of the fetus prior to the amniocentesis. Method of testing is spectrophotometry. This test measures the amount of free bilirubin in the amniotic fluid.

Coding Tips
For amniotic fluid specimen, a separately reportable amniocentesis is performed. See code 83661 for L/S ratio.

ICD-9-CM Diagnostic Codes

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<td>Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)</td>
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CCI Version 20.0
No CCI Edits apply to this code.

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**Amphetamine or methamphetamine**

**Explanation**
This test may be requested as a quantitative analysis of amphetamine/methamphetamine. A number of methods are used. Methods used for blood include gas-liquid chromatography (GLC), gas chromatometry/mass spectrometry (GC/MS), and radioimmunoassay (RIA). Methods used for urine include enzyme immunoassay (EIA), high performance liquid chromatography (HPLC), fluorescence polarization immunoassay (FPIA), and RIA. This test measures (quantifies) the amount of amphetamine or methamphetamine in the urine.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **Drug abuse.** Individual, for whom no other diagnosis is possible, has come under medical care because of the maladaptive effect of a drug on which he is not dependent (see Drug dependence) and that he has taken on his own initiative to the detriment of his health or social functioning.
- **Drug dependence.** Psychic and physical dependence, resulting from taking a drug, characterized by behavioral and other responses that always include a compulsion to take a drug on a continuous or periodic basis to experience its psychic effects, and sometimes to avoid the discomfort of its absence.
- **Psychosis.** Impairment of mental function that has progressed to a degree that interferes grossly with insight, ability to meet some ordinary demands of life, or to maintain adequate contact with reality.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>297.9</td>
<td>Unspecified paranoid state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>298.9</td>
<td>Unspecified psychosis — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)</td>
</tr>
<tr>
<td>304.90</td>
<td>Unspecified drug dependence, unspecified</td>
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<tr>
<td>305.70</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, unspecified</td>
</tr>
<tr>
<td>305.71</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, continuous</td>
</tr>
<tr>
<td>305.72</td>
<td>Nondependent amphetamine or related acting sympathomimetic abuse, episodic</td>
</tr>
</tbody>
</table>

**CCI Version 20.0**
No CCI Edits apply to this code.
82150

82150 Amylase

Explanation
Serum amylase is elevated in acute pancreatitis and is, therefore, a common test when abdominal pain, epigastric tenderness, nausea, and vomiting are present. There are multiple methods of testing for amylase.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
536.2 Persistent vomiting
574.00 Calculus of gallbladder with acute cholecystitis, without mention of obstruction
574.01 Calculus of gallbladder with acute cholecystitis and obstruction
574.10 Calculus of gallbladder with other cholecystitis, without mention of obstruction
574.11 Calculus of gallbladder with other cholecystitis and obstruction
574.20 Calculus of gallbladder without mention of cholecystitis or obstruction
574.21 Calculus of gallbladder without mention of cholecystitis, with obstruction
574.30 Calculus of bile duct with acute cholecystitis, without mention of obstruction
574.31 Calculus of bile duct with acute cholecystitis and obstruction
574.40 Calculus of bile duct with other cholecystitis, without mention of obstruction
574.41 Calculus of bile duct with other cholecystitis and obstruction
574.50 Calculus of bile duct without mention of cholecystitis or obstruction
574.51 Calculus of bile duct without mention of cholecystitis, with obstruction
574.60 Calculus of gallbladder and bile duct with acute cholecystitis, without mention of obstruction
574.61 Calculus of gallbladder and bile duct with acute cholecystitis, with obstruction
574.70 Calculus of gallbladder and bile duct with other cholecystitis, without mention of obstruction
574.71 Calculus of gallbladder and bile duct with other cholecystitis, with obstruction
574.80 Calculus of gallbladder and bile duct with acute and chronic cholecystitis, without mention of obstruction
574.81 Calculus of gallbladder and bile duct with acute and chronic cholecystitis, with obstruction
574.90 Calculus of gallbladder and bile duct without cholecystitis, without mention of obstruction
574.91 Calculus of gallbladder and bile duct without cholecystitis, with obstruction
575.0 Acute cholecystitis
575.11 Chronic cholecystitis
575.12 Acute and chronic cholecystitis
575.2 Obstruction of gallbladder
575.3 Hydrops of gallbladder
575.4 Perforation of gallbladder
575.5 Fistula of gallbladder
575.6 Cholesterosis of gallbladder
576.0 Postcholecystectomy syndrome
576.1 Cholangitis
576.2 Obstruction of bile duct
576.3 Perforation of bile duct
576.4 Fistula of bile duct
576.5 Spasm of sphincter of Oddi
577.0 Acute pancreatitis
577.1 Chronic pancreatitis
577.2 Cyst and pseudocyst of pancreas
789.01 Abdominal pain, right upper quadrant
789.02 Abdominal pain, left upper quadrant
789.03 Abdominal pain, right lower quadrant
789.04 Abdominal pain, left lower quadrant
789.05 Abdominal pain, periumbilical
789.06 Abdominal pain, epigastric
789.07 Abdominal pain, generalized

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
No CCI Edits apply to this code.
**ICD-9-CM Diagnostic Codes**

249.00 Secondary diabetes mellitus without mention of complication, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

249.20 Secondary diabetes mellitus with hyperosmolality, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

249.30 Secondary diabetes mellitus with other coma, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

249.40 Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9) (Use additional code to identify any associated insulin use: V58.67)

249.50 Secondary diabetes mellitus with ophthalmic manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9) (Use additional code to identify any associated insulin use: V58.67)

249.60 Secondary diabetes mellitus with neurological manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5) (Use additional code to identify any associated insulin use: V58.67)

249.70 Secondary diabetes mellitus with peripheral circulatory disorders, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 443.81, 785.4) (Use additional code to identify any associated insulin use: V58.67)

249.80 Secondary diabetes mellitus with other specified manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 707.10-707.19, 707.8, 707.9, 731.8) (Use additional code to identify any associated insulin use: V58.67)

249.90 Secondary diabetes mellitus with unspecified complication, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

250.01 Diabetes mellitus without mention of complication, type I (juvenile type), not stated as uncontrolled

250.10 Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled

250.20 Diabetes with hyperosmolality, type II or unspecified type, not stated as uncontrolled

250.30 Diabetes with other coma, type II or unspecified type, not stated as uncontrolled

250.40 Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)

250.50 Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)

250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)

250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)

250.80 Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 707.10-707.19, 707.8, 707.9, 731.8)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
82175

82175 Arsenic

Explanation
Arsenic is a toxic metallic element with exposure occurring by inhalation or ingestion. Urine is the preferred specimen for acute exposure and when the patient is symptomatic. A 24-hour urine specimen is required. Method is colorimetry, atomic absorption spectrophotometry (AAS), or neutron activation analysis (NAA). This test measures (quantifies) the amount of arsenic present.

Coding Tips
To report heavy metal screening (arsenic, barium, beryllium, bismuth, antimony, mercury), consult CPT code 83015. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
arsenic. Heavy metal toxic by inhalation and ingestion that can be found in a patient’s serum, plasma, or hair and nails. Acute poisoning may cause skin eruptions, vomiting, abdominal pain, cramping, and swelling of the hands and feet, and may result in shock and death. Chronic poisoning from long periods of ingestion causes scaling and pigmented skin, hyperkeratosis on the palms and soles, peripheral neuropathy, confusion, and transverse white lines on the fingernails. Report chemistry test with CPT code 82180 and heavy metal screening with 83015.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
349.82 Toxic encephalopathy — (Use additional E code to identify cause)
569.89 Other specified disorder of intestines
582.9 Chronic glomerulonephritis with unspecified pathological lesion in kidney
783.21 Loss of weight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)
783.22 Underweight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)
787.01 Nausea with vomiting
787.91 Diarrhea

<table>
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<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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</table>

CCI Version 20.0
No CCI Edits apply to this code.

961.1 Poisoning by arsenical anti-infectives — (Use additional code to specify the effects of poisoning)
985.1 Toxic effect of arsenic and its compounds — (Use additional code to specify the nature of the toxic effect)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>CCI Edits</th>
</tr>
</thead>
<tbody>
<tr>
<td>275</td>
<td>Disorders of copper metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
<td></td>
</tr>
<tr>
<td>371.15</td>
<td>Other deposits of cornea associated with metabolic disorders</td>
<td></td>
</tr>
<tr>
<td>585.1</td>
<td>Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
<td></td>
</tr>
<tr>
<td>585.2</td>
<td>Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
<td></td>
</tr>
<tr>
<td>585.3</td>
<td>Chronic kidney disease, Stage III (moderate) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
<td></td>
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<tr>
<td>585.4</td>
<td>Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
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</tr>
<tr>
<td>585.5</td>
<td>Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
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</tr>
<tr>
<td>585.6</td>
<td>End stage renal disease — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)</td>
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</tr>
<tr>
<td>973.0</td>
<td>Poisoning by antacids and antigastric secretion drugs — (Use additional code to specify the effects of poisoning)</td>
<td></td>
</tr>
<tr>
<td>984.0</td>
<td>Toxic effect of inorganic lead compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>984.1</td>
<td>Toxic effect of organic lead compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>984.8</td>
<td>Toxic effect of other lead compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>984.9</td>
<td>Toxic effect of unspecified lead compound — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.0</td>
<td>Toxic effect of mercury and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.1</td>
<td>Toxic effect of arsenic and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.2</td>
<td>Toxic effect of manganese and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.3</td>
<td>Toxic effect of beryllium and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
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</tr>
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<td>985.4</td>
<td>Toxic effect of antimony and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
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</tr>
<tr>
<td>985.5</td>
<td>Toxic effect of cadmium and its compounds — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.6</td>
<td>Toxic effect of chromium — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>985.8</td>
<td>Toxic effect of other specified metals — (Use additional code to specify the nature of the toxic effect)</td>
<td></td>
</tr>
<tr>
<td>V15.86</td>
<td>Personal history of contact with and (suspected) exposure to lead</td>
<td></td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
**82205**

**82205**  Barbiturates, not elsewhere specified

**Explanation**
This test may be requested as a quantitative analysis of barbiturates. A number of methods are used. Methods used for blood include gas-liquid chromatography (GLC), gas chromatometry/mass spectrometry (GC/MS), and radioimmunoassay (RIA). Methods used for urine include enzyme immunoassay (EIA) and high performance liquid chromatography (HPLC). This test measures (quantifies) the amount of barbiturate.

**Coding Tips**
Prior to obtaining a quantitative analysis for amphetamine or methamphetamine, a qualitative drug screen (80100-80101) and drug confirmation test (80102) are normally performed. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
quantitative. To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>304.10</td>
<td>Sedative, hypnotic or anxiolytic dependence, unspecified</td>
</tr>
<tr>
<td>304.11</td>
<td>Sedative, hypnotic or anxiolytic dependence, continuous</td>
</tr>
<tr>
<td>304.12</td>
<td>Sedative, hypnotic or anxiolytic dependence, episodic</td>
</tr>
<tr>
<td>304.13</td>
<td>Sedative, hypnotic or anxiolytic dependence, in remission</td>
</tr>
<tr>
<td>304.90</td>
<td>Unspecified drug dependence, unspecified</td>
</tr>
<tr>
<td>305.40</td>
<td>Nondependent sedative, hypnotic or anxiolytic abuse, unspecified</td>
</tr>
<tr>
<td>305.41</td>
<td>Nondependent sedative hypnotic or anxiolytic abuse, continuous</td>
</tr>
<tr>
<td>305.42</td>
<td>Nondependent sedative, hypnotic or anxiolytic abuse, episodic</td>
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<tr>
<td>305.43</td>
<td>Nondependent sedative, hypnotic or anxiolytic abuse, in remission</td>
</tr>
<tr>
<td>305.90</td>
<td>Other, mixed, or unspecified nondependent drug abuse, unspecified</td>
</tr>
<tr>
<td>305.91</td>
<td>Other, mixed, or unspecified nondependent drug abuse, continuous</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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</tbody>
</table>

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253
82232
82232  Beta-2 microglobulin

Explanation
This test may be requested as Beta2M. Beta2M is a small (micro) nonpolymorphic protein. CSF is obtained by spinal puncture, which is reported separately. Method is by radioimmunoassay (RIA), enzyme immunoassay (EIA), or immunoradiometric assay (IRMA).

Coding Tips
If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
202.83  Other malignant lymphomas of intra-abdominal lymph nodes
203.01  Multiple myeloma in remission
203.02  Multiple myeloma, in relapse
203.10  Plasma cell leukemia, without mention of having achieved remission
203.11  Plasma cell leukemia in remission
203.12  Plasma cell leukemia, in relapse
203.80  Other immunoproliferative neoplasms, without mention of having achieved remission
203.81  Other immunoproliferative neoplasms in remission
203.82  Other immunoproliferative neoplasms, in relapse
204.00  Acute lymphoid leukemia, without mention of having achieved remission
204.01  Acute lymphoid leukemia in remission
204.02  Acute lymphoid leukemia, in relapse
204.10  Chronic lymphoid leukemia, without mention of having achieved remission
204.11  Chronic lymphoid leukemia in remission
204.12  Chronic lymphoid leukemia, in relapse

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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</table>

ICD-9-CM Diagnostic Codes

042 Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
070.0 Viral hepatitis A
070.1 Viral hepatitis A without mention of hepatic coma
070.20 Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
070.21 Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
070.22 Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
070.23 Viral hepatitis B with hepatic coma, chronic, with hepatitis delta
070.30 Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
070.31 Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
070.32 Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.33 Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta
070.41 Acute hepatitis C with hepatic coma
070.42 Hepatitis delta without mention of active hepatitis B disease with hepatic coma
070.43 Hepatitis E with hepatic coma
070.51 Acute hepatitis C without mention of hepatic coma
155.0 Malignant neoplasm of liver, primary
155.1 Malignant neoplasm of intrahepatic bile ducts
281.0 Pernicious anemia
282.5 Sickle-cell trait
282.60 Sickle-cell disease, unspecified
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.9 Acquired hemolytic anemia, unspecified
571.5 Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
571.6 Biliary cirrhosis
574.50 Calculus of bile duct without mention of cholecystitis or obstruction
574.51 Calculus of bile duct without mention of cholecystitis, with obstruction
576.1 Cholangitis
576.8 Other specified disorders of biliary tract
782.4 Jaundice, unspecified, not of newborn

Terms to Know:
abscess. Circumscribed collection of pus resulting from bacteria, frequently associated with swelling and other signs of inflammation.
bilirubinuria. Condition in which bilirubin is present in the urine, reported with ICD-9-CM code 791.4. Synonym(s): biliuria.
cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
hepatitis D (delta). Hepatitis D virus (HDV) occurs only in the presence of hepatitis B virus.

Coding Tips
Code 82247 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative.
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers associate with swelling and other signs of inflammation.
collection of pus resulting from bacteria, frequently associated with swelling and other signs of inflammation.
condition in which bilirubin is present in the urine, reported with ICD-9-CM code 791.4. Synonym(s): biliuria.
disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
Hepatitis D (delta). Hepatitis D virus (HDV) occurs only in the presence of hepatitis B virus.

### ICD-9-CM Diagnostic Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>070.0</td>
<td>Viral hepatitis A</td>
</tr>
<tr>
<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
</tr>
<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
<td>070.31</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.32</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta</td>
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<tr>
<td>070.33</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
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<tr>
<td>070.41</td>
<td>Acute hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
</tr>
<tr>
<td>070.43</td>
<td>Hepatitis E with hepatic coma</td>
</tr>
<tr>
<td>070.51</td>
<td>Acute hepatitis C without mention of hepatic coma</td>
</tr>
<tr>
<td>155.0</td>
<td>Malignant neoplasm of liver, primary</td>
</tr>
<tr>
<td>155.1</td>
<td>Malignant neoplasm of intrahepatic bile ducts</td>
</tr>
<tr>
<td>281.0</td>
<td>Pernicious anemia</td>
</tr>
<tr>
<td>282.5</td>
<td>Sickle-cell trait</td>
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<tr>
<td>282.60</td>
<td>Sickle-cell disease, unspecified</td>
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<tr>
<td>283.0</td>
<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
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<tr>
<td>283.9</td>
<td>Acquired hemolytic anemia, unspecified</td>
</tr>
<tr>
<td>571.5</td>
<td>Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)</td>
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<tr>
<td>571.6</td>
<td>Biliary cirrhosis</td>
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<tr>
<td>574.50</td>
<td>Calculus of bile duct without mention of cholecystitis or obstruction</td>
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<tr>
<td>574.51</td>
<td>Calculus of bile duct without mention of cholecystitis, with obstruction</td>
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<tr>
<td>576.1</td>
<td>Cholangitis</td>
</tr>
<tr>
<td>576.8</td>
<td>Other specified disorders of biliary tract</td>
</tr>
<tr>
<td>782.4</td>
<td>Jaundice, unspecified, not of newborn</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

### IOM References

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<td>100-2,11,30.2.2</td>
<td>100-4,16,40.6.1</td>
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</tbody>
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### CCI Version 20.0

No CCI Edits apply to this code.
82252 Bilirubin; feces, qualitative

Explanation
Bilirubin is not normally present in feces, appearing only in cases of rapid peristaltic movement of the gut or disturbances in normal intestinal flora. Detection may be useful in evaluation of some types of diarrhea. It can be detected with the dipstick or tablet tests commonly used for urine, by testing the supernatant fluid from watery feces, or adding water to solid feces.

Coding Tips
To report total bilirubin consult CPT code 82247. To report direct bilirubin consult CPT code 82248.

ICD-9-CM Diagnostic Codes
075 Infectious mononucleosis
155.0 Malignant neoplasm of liver, primary
211.5 Benign neoplasm of liver and biliary passages
277.4 Disorders of bilirubin excretion — (Use additional code to identify any associated intellectual disabilities)
281.0 Pernicious anemia
282.2 Anemias due to disorders of glutathione metabolism
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.10 Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
283.11 Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
283.19 Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
303.90 Other and unspecified alcohol dependence, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 533.3, 571.1, 571.2, 571.3)
303.91 Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 533.3, 571.1, 571.2, 571.3)
303.92 Other and unspecified alcohol dependence, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 533.3, 571.1, 571.2, 571.3)
303.93 Other and unspecified alcohol dependence, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 533.3, 571.1, 571.2, 571.3)
571.2 Alcoholic cirrhosis of liver
571.5 Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
576.1 Cholangitis
773.0 Hemolytic disease due to Rh isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.1 Hemolytic disease due to ABO isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.2 Hemolytic disease due to other and unspecified isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
774.1 Perinatal jaundice from other excessive hemolysis — (Use additional code(s) to further specify condition. Use additional code to identify cause)
774.2 Neonatal jaundice associated with preterm delivery — (Use additional code(s) to further specify condition)
774.3 Neonatal jaundice due to delayed conjugation, cause unspecified — (Use additional code(s) to further specify condition)
774.31 Neonatal jaundice due to delayed conjugation in diseases classified elsewhere — (Use additional code(s) to further specify condition. Code first underlying disease: 243, 277.4)
774.39 Other neonatal jaundice due to delayed conjugation from other causes — (Use additional code(s) to further specify condition)
774.4 Perinatal jaundice due to hepatocellular damage — (Use additional code(s) to further specify condition)
774.5 Perinatal jaundice from other causes — (Use additional code(s) to further specify condition. Code first underlying cause as: 271.1, 277.00-277.09, 751.61)
774.6 Unspecified fetal and neonatal jaundice — (Use additional code(s) to further specify condition)
774.7 Kernicterus of fetus or newborn not due to isoimmunization — (Use additional code(s) to further specify condition)
782.4 Jaundice, unspecified, not of newborn
999.81 Extravasation of vesicant chemotherapy
999.82 Extravasation of other vesicant agent
999.88 Other infusion reaction
999.89 Other transfusion reaction — (Use additional code to identify graft-versus-host reaction: 279.5)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**82270-82274 - NCD**

**82270**  Blood, occult, by peroxidase activity (e.g., guaiac), qualitative; feces, consecutive collected specimens with single determination, for colorectal neoplasm screening (i.e., patient was provided 3 cards or single triple card for consecutive collection)

**82271**  other sources

**82272**  Blood, occult, by peroxidase activity (e.g., guaiac), qualitative, feces, 1-3 simultaneous determinations, performed for other than colorectal neoplasm screening

**82274**  Blood, occult, by fecal hemoglobin determination by immunoassay, qualitative, feces, 1-3 simultaneous determinations

**Explanation**

The test reported with code 82270 may be requested as a screening guaiac, screening stool guaiac, or by a variety of brand names. The patient is instructed to obtain three consecutive stool specimens and send the kit to a lab or physician office for performance of the test. The method is peroxidase activity. This test reports the presence (qualitative analysis) of blood in the stool, but does not quantify the amount. This code is used to report the service when performed as colorectal neoplasm screening. For 82271 a specimen, other than stool, is obtained for detection of blood. The method is peroxidase activity. This test reports the presence (qualitative analysis) of blood in a specimen other than stool, but does not quantify the amount. Code 82272 may also be requested as a screening guaiac or screening stool guaiac, or by a variety of brand names. The patient is instructed to obtain three consecutive stool specimens and send the kit to a lab or physician office for performance of the test. The method is peroxidase activity. This test detects the presence (qualitative analysis) of blood in the stool, but does not quantify the amount. This code is used to report the service when performed for reasons other than colorectal neoplasm screening. Report 82274 when a fecal sample is dispersed in a diluent with antibodies for hemoglobin antigen to form a complex of antibody and antigen. A complex of antibody and antigen is separated from the specimen and exposed to a second antibody for the hemoglobin antigen. A sample from the first complex is bound to a solid carrier, and a sample from the second antibody exposure is labeled with a detection agent to determine the presence of hemoglobin antigen in the original fecal specimen. This code requires three samples, which must be obtained from separate bowel movements, and each sample must be placed in a sterile leakproof container with a screw-cap lid for transport to the laboratory.

**Coding Tips**

A national coverage determination (NCD) applies to codes 82270 and 82272. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.34. These tests may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

**ICD-9-CM Diagnostic Codes**

- 152.0  Malignant neoplasm of duodenum
- 152.1  Malignant neoplasm of jejunum
- 152.2  Malignant neoplasm of ileum
- 153.1  Malignant neoplasm of transverse colon
- 153.2  Malignant neoplasm of descending colon
- 153.3  Malignant neoplasm of sigmoid colon
- 153.4  Malignant neoplasm of cecum
- 153.6  Malignant neoplasm of ascending colon
- 211.3  Benign neoplasm of colon
- 455.1  Internal thrombosed hemorrhoids
- 455.4  External thrombosed hemorrhoids
- 456.0  Esophageal varices with bleeding
- 456.1  Esophageal varices without mention of bleeding
- 530.11  Reflux esophagitis — (Use additional E code to identify cause, if induced by chemical)
- 530.12  Acute esophagitis — (Use additional E code to identify cause, if induced by chemical)
- 530.13  Eosinophilic esophagitis
- 533.01  Acute peptic ulcer, unspecified site, with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
- 533.10  Acute peptic ulcer, unspecified site, with perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
- 533.41  Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
- 533.50  Chronic or unspecified peptic ulcer, unspecified site, with perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4,16,70.8; 100-4,18,60.1; 100-4,18,60.2; 100-4,18,60.6

**CCI Version 20.0**

Also not with 82270: 82272
Also not with 82274: 82270Φ, 82272, 83026

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
**82306 (82652)**

**82306**  
Vitamin D; 25 hydroxy, includes fraction(s), if performed

**82652**  
1, 25 dihydroxy, includes fraction(s), if performed

**Explanation**

Code 82306 may be requested as 25-OHD3, 25(OH) Calciferol, Vitamin D 25-Hydroxy, Vitamin D3 25-OH, or Calciferol 25-Hydroxy. Specimen is serum or plasma and method is high performance liquid chromatography (HPLC), competitive protein binding (CPB), or radioimmunoassay (RIA). This code includes fractions, if performed. Code 82652 may be requested as 1,25 (OH) Vitamin D, 1,25-Dihydroxy Vitamin D, 1,25-Dihydroxycholecalciferal, and Vitamin D, 1,25-Dihydroxy. This is the most active form of Vitamin D. It is formed by the renal cells and is essential for calcium absorption. Specimen is serum or plasma, and method is radioimmunoassay (RIA) or column chromatography. This code includes fractions, if performed.

**Coding Tips**

Note that code 82652 is a resequenced code. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

135  
Sarcoidosis

252.00  
Hyperparathyroidism, unspecified

252.01  
Primary hyperparathyroidism

252.02  
Secondary hyperparathyroidism, non-renal

252.08  
Other hyperparathyroidism

252.1  
Hypoparathyroidism

268.0  
Rickets, active

268.2  
Osteomalacia, unspecified

275.49  
Other disorders of calcium metabolism — (Use additional code to identify any associated intellectual disabilities)

588.0  
Renal osteodystrophy

696.1  
Other psoriasis

733.00  
Unspecified osteoporosis — (Use additional code to identify major osseous defect, if applicable: 731.3) (Use additional code to identify personal history of pathologic (healed) fracture: V13.51)

733.01  
Senile osteoporosis — (Use additional code to identify major osseous defect, if applicable: 731.3) (Use additional code to identify personal history of pathologic (healed) fracture: V13.51)

733.02  
Idiopathic osteoporosis — (Use additional code to identify major osseous defect, if applicable: 731.3) (Use additional code to identify personal history of pathologic (healed) fracture: V13.51)

733.03  
Disuse osteoporosis — (Use additional code to identify major osseous defect, if applicable: 731.3) (Use additional code to identify personal history of pathologic (healed) fracture: V13.51)

733.09  
Other osteoporosis — (Use additional code to identify major osseous defect, if applicable: 731.3) (Use additional code to identify personal history of pathologic (healed) fracture: V13.51) (Use additional E code to identify drug)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502, 84591, 88740

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Calcitonin

**Explanation**
This test may be requested as thyrocalcitonin. This test may be used to screen for specific malignant neoplasms. A fasting blood specimen should be taken. The specimen is collected in a chilled tube and the test performed within 10 minutes of collection. Serum (plasma) is separated in a refrigerated centrifuge and frozen. The test is performed by assay or radioimmunoassay (RIA).

**Coding Tips**
If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**
- 157.0 Malignant neoplasm of head of pancreas
- 157.1 Malignant neoplasm of body of pancreas
- 157.2 Malignant neoplasm of tail of pancreas
- 157.3 Malignant neoplasm of pancreatic duct
- 157.4 Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)
- 157.8 Malignant neoplasm of other specified sites of pancreas
- 157.9 Malignant neoplasm of pancreas, part unspecified
- 162.2 Malignant neoplasm of main bronchus
- 162.3 Malignant neoplasm of upper lobe, bronchus, or lung
- 162.4 Malignant neoplasm of middle lobe, bronchus, or lung
- 162.5 Malignant neoplasm of lower lobe, bronchus, or lung
- 162.8 Malignant neoplasm of other parts of bronchus or lung
- 162.9 Malignant neoplasm of bronchus and lung, unspecified site
- 174.0 Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.1 Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.2 Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.3 Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.4 Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.5 Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.6 Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.8 Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 174.9 Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
- 193 Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
- 197.8 Secondary malignant neoplasm of other digestive organs and spleen
- 198.81 Secondary malignant neoplasm of breast
- 198.89 Secondary malignant neoplasm of other specified sites
- 246.0 Disorders of thyrocalcitonin secretion
- 246.9 Unspecified disorder of thyroid

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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ICD-9-CM code 275.42. Causes may include tumor or hyperthyroidism. Hypercalcemia is reported with symptoms of muscle weakness, fatigue, nausea, depression, and constipation.

**Terms To Know**

**hypercalcemia.** Abnormally high levels of calcium in the blood, resulting in symptoms such as hyperactive deep tendon reflexes, muscle and abdominal cramping, and carpopedal spasm. This may be associated with diseases such as sepsis, pancreatitis, and acute renal failure. Hypercalcemia is reported with ICD-9-CM code 275.42.

**thyroid.** Endocrine gland located in the front of the lower neck composed of two lobes on either side of the trachea, responsible for secreting and storing the thyroid hormones that regulate metabolism.

**thyroid-adrenocortical insufficiency syndrome.** Insufficient production of hormones by the pituitary and thyroid glands. Report this disorder with ICD-9-CM code 258.1.

**Calcium; total**

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**Explanation**

Code 82310 may be abbreviated Ca. Blood is obtained by venipuncture or heel stick. Specimen is obtained in the morning and a fasting sample is preferable. Postural changes and venous stasis may provide misleading results. Accurate diagnosis may require obtaining additional specimens on subsequent days. Method is spectrophotometry or atomic absorption spectroscopy (AAS). The test may be used to assess thyroid and parathyroid function. Code 82330 may also be referred to as free calcium or may be abbreviated iCa, Ca++, or CA+2. Ionized or free calcium refers to calcium that is not bound to proteins in the blood. Method is by ion-selective electrode (ISE). It may be used to assess thyroid and parathyroid dysfunction. The calcium infusion test (82331) is a provocative test for evaluation of medullary thyroid carcinoma (MTC). Calcitonin levels are measured following an IV infusion of calcium solution, and sometimes calcium levels are also measured to evaluate calcium incorporation or monitor hypercalcemia.

**Coding Tips**

Code 82310 and 82330 represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. These tests are quantitative. If 82331 is performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Hyperparathyroidism (252.0X) is the abnormally high secretion of parathyroid hormones and can result in increased blood calcium levels. Hypoparathyroidism (251.1) is the result of too little parathyroid hormone secretion and can cause abnormally low blood calcium levels.

**Terms To Know**

**hypercalcemia.** Abnormally high levels of calcium in the blood, resulting in symptoms of muscle weakness, fatigue, nausea, depression, and constipation. Causes may include tumor or hyperthyroidism. Hypercalcemia is reported with ICD-9-CM code 275.42.
Carbohydrate deficient transferrin

Explanation
This test may be ordered as a CDT or CDT percentage. Blood specimen is obtained by venipuncture. The specimen is clotted and separated. Method is nephelometry or turbidimetric immunoassay. Carbohydrate deficient transferrin is a protein formed in the liver and abnormally high elevations are linked to a prolonged period of high alcohol use. The test may be ordered to confirm diagnosis of alcoholism or to measure compliance with an abstinence program.

Coding Tips
If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
alcohol abstinence syndrome. Cessation of prolonged heavy drinking of alcohol that results in tremor of hands, tongue, and eyelids that can also include nausea and vomiting, dry mouth, headache, heavy perspiration, fitful sleep, acute anxiety attacks, mood depression, feelings of guilt and remorse, and irritability.
alcoholism, acute. Psychic and physical state resulting from alcohol ingestion characterized by slurred speech, unsteady gait, poor coordination, flushed face, nystagmus, sluggish reflexes, strong smell of alcohol, loud speech, emotional instability (e.g., jollity followed by gloominess), excessive socializing, talkativeness, and poorly inhibited sexual and aggressive behavior.
alcoholism, chronic. Chronic, progressive state of dependence upon alcohol that is both psychological and physical with periodic or continuous episodes impairing health and the ability to function emotionally, socially, and occupationally.

ICD-9-CM Diagnostic Codes
291.0 Alcohol withdrawal delirium
291.1 Alcohol-induced persisting amnestic disorder
291.2 Alcohol-induced persisting dementia
291.3 Alcohol-induced psychotic disorder with hallucinations
291.4 Idiosyncratic alcohol intoxication
291.5 Alcohol-induced psychotic disorder with delusions
291.81 Alcohol withdrawal
303.01 Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.02 Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.03 Acute alcoholic intoxication, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
305.01 Nondependent alcohol abuse, continuous
305.02 Nondependent alcohol abuse, episodic
305.03 Nondependent alcohol abuse, in remission
V70.4 Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
V72.60 Laboratory examination, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
82374
82374  Carbon dioxide (bicarbonate)

Explanation
This test may be requested as CO2, HCO3, or bicarbonate. Bicarbonate (carbon dioxide) is an indicator of electrolyte and acid-base status (alkalosis, acidosis). It is elevated in metabolic alkalosis, compensated respiratory acidosis, and hypokalemia. It is decreased in metabolic acidosis, compensated respiratory alkalosis, and in diabetic ketoacidosis. Blood specimen is normally obtained by arterial puncture, but venipuncture may also be used. Bicarbonate is usually calculated using the Henderson-Hasselbalch equation (HCO3 = Total CO2 – H2CO3). However, it can also be determined by titration.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. For blood gases consult CPT code 82803. If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>249.10</td>
<td>Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>249.11</td>
<td>Secondary diabetes mellitus with ketoacidosis, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>250.10</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.11</td>
<td>Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.12</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, uncontrolled</td>
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<td>250.13</td>
<td>Diabetes with ketoacidosis, type I [juvenile type], uncontrolled</td>
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<table>
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<th>Work Value</th>
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<td>0.00</td>
<td>0.00</td>
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</tr>
</tbody>
</table>
**82378 - NCD**

**82378** Carcinoembryonic antigen (CEA)

**Explanation**
The Carcinoembryonic Antigen (CEA) test is most often used as a tumor marker, especially for gastrointestinal cancer. Other conditions that may raise the CEA level include cancer of the pancreas, stomach, breast, lung, and some types of thyroid and ovarian cancer. Benign conditions that can elevate CEA include smoking, infections, inflammatory bowel disease, pancreatitis, and liver cirrhosis. If the CEA level is abnormally high prior to surgery or other treatment, it is anticipated it will return to normal after successful surgery to remove all of the cancer. A rising level of CEA may be indicative of cancer progression or recurrence. In addition, levels >20 ng/ml before therapy are associated with cancer which has metastasized. Although CEA is most often tested in blood, it may also be tested in body fluids and in biopsy tissue.

**Coding Tips**
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.26. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is requiring a physician or other qualified health care provider, by a third-party payers and state scope of work exclude the use of a code on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>150.8</td>
<td>Malignant neoplasm of other specified part of esophagus</td>
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<td>151.8</td>
<td>Malignant neoplasm of other specified sites of stomach</td>
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<tr>
<td>152.8</td>
<td>Malignant neoplasm of other specified sites of small intestine</td>
</tr>
<tr>
<td>153.8</td>
<td>Malignant neoplasm of other specified sites of large intestine</td>
</tr>
<tr>
<td>154.8</td>
<td>Malignant neoplasm of other sites of rectum, rectosigmoid junction, and anus</td>
</tr>
<tr>
<td>157.8</td>
<td>Malignant neoplasm of other specified sites of pancreas</td>
</tr>
<tr>
<td>159.0</td>
<td>Malignant neoplasm of intestinal tract, part unspecified</td>
</tr>
<tr>
<td>162.8</td>
<td>Malignant neoplasm of other parts of bronchus or lung</td>
</tr>
<tr>
<td>174.8</td>
<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>175.9</td>
<td>Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>209.00</td>
<td>Malignant carcinoid tumor of the small intestine, unspecified portion — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.10</td>
<td>Malignant carcinoid tumor of the large intestine, unspecified portion — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.20</td>
<td>Malignant carcinoid tumor of unknown primary site — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.25</td>
<td>Malignant carcinoid tumor of foregut, not otherwise specified — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
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<td>209.26</td>
<td>Malignant carcinoid tumor of midgut, not otherwise specified — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.27</td>
<td>Malignant carcinoid tumor of hindgut, not otherwise specified — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.29</td>
<td>Malignant carcinoid tumor of other sites — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.70</td>
<td>Secondary neuroendocrine tumor, unspecified site</td>
</tr>
<tr>
<td>230.7</td>
<td>Carcinoma in situ of other and unspecified parts of intestine</td>
</tr>
<tr>
<td>230.9</td>
<td>Carcinoma in situ of other and unspecified digestive organs</td>
</tr>
<tr>
<td>795.81</td>
<td>Elevated carcinoembryonic antigen [CEA]</td>
</tr>
<tr>
<td>795.89</td>
<td>Other abnormal tumor markers</td>
</tr>
<tr>
<td>V10.00</td>
<td>Personal history of malignant neoplasm of unspecified site in gastrointestinal tract</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.26

**CCI Version 20.0**
No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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</table>

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Abnormally increased pressure, usually referring to arterial hypertension.

Terms To Know
- Levels
- With no physical exertion to prevent elevated plasma catecholamine levels.
- At the time of specimen collection, the patient should be in a relaxed state (Aldomet, Inderal) as they may interfere with the technique. At the laboratory, report code 99000 for handling. Prior to obtaining blood unlicensed clinical staff. If a specimen is transported to an outside or other qualified health care provider, by a phlebotomist, or other and state scope of work exclude the use of a code requiring a physician health care provider, see codes 36400-36406. Most third-party payers younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient years of age or older requires the skill of a physician or other qualified health care provider, see code 36415. When venipuncture on a patient 3 Venipuncture is separately reportable. For collection of venous blood different times, report each test separately. This test is quantitative.

Catecholamines are biogenic amines that include epinephrine, norepinephrine, and dopamine. This test is used to diagnose hypertension caused by increased levels of catecholamines secreted by specific types of tumors. For code 82382, a 24-hour urine specimen is preferred but shorter timed collections may also be used. The patient flushes the first urine of the day and discards it. All voided urine for the next 24 hours is collected and refrigerated. Method is fluorometry. Code 82383 requires a blood specimen and tests for total catecholamines. Codes 82382 and 82383 report total catecholamines and, therefore, do not differentiate between epinephrine, norepinephrine, and dopamine. Code 82384 reports catecholamines and quantifies total epinephrine, norepinephrine, and dopamine separately. Most assays measure only free catecholamines, but some measure both free and conjugated types. Preferred method is high performance liquid chromatography (HPLC), but radioimmunoassay (RIA) or radiochemical assay may also be used to perform codes 82382 and 82383.

Catecholamines are biogenic amines that include epinephrine, norepinephrine, and dopamine. This test is used to diagnose hypertension caused by increased levels of catecholamines secreted by specific types of tumors. For code 82382, a 24-hour urine specimen is preferred but shorter timed collections may also be used. The patient flushes the first urine of the day and discards it. All voided urine for the next 24 hours is collected and refrigerated. Method is fluorometry. Code 82383 requires a blood specimen and tests for total catecholamines. Codes 82382 and 82383 report total catecholamines and, therefore, do not differentiate between epinephrine, norepinephrine, and dopamine. Code 82384 reports catecholamines and quantifies total epinephrine, norepinephrine, and dopamine separately. Most assays measure only free catecholamines, but some measure both free and conjugated types. Preferred method is high performance liquid chromatography (HPLC), but radioimmunoassay (RIA) or radiochemical assay may also be used to perform codes 82382 and 82383.

Procedure Codes

<table>
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<th>Code</th>
<th>Description</th>
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<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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</tbody>
</table>
**82387**

**82387  Cathepsin-D**

**Explanation**

Cathepsin D is an indicator of metastatic breast cancer. Neoplastic tissue must be dissected free of fat and normal breast tissue, sliced into small pieces, placed in a tube, and quick frozen in liquid nitrogen. The tissue is analyzed by means of enzymatic immunoassay (EIA) or immunoradiometric assay (IRMA).

**Coding Tips**

If performed from multiple specimens from different sources, or using specimens obtained at different times, report each test separately. This test is quantitative. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*dissect.* Cut apart or separate tissue for surgical purposes or for visual or microscopic study.

*specimen.* Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>174.0</td>
<td>Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.1</td>
<td>Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.2</td>
<td>Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.3</td>
<td>Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.4</td>
<td>Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.5</td>
<td>Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.6</td>
<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.7</td>
<td>Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.8</td>
<td>Malignant neoplasm of other unspecified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.9</td>
<td>Malignant neoplasm of nipple and areola of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<tr>
<td>175.0</td>
<td>Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Cholesterol, serum or whole blood, total

**Explanation**

A normal level of cholesterol is vital for developing membranes in the cells of the body, making essential hormones for development, growth, and reproduction, and forming bile acids necessary to absorb nutrients from food. A small amount also circulates in the blood as lipoproteins. These lipoproteins include some particles that carry excess cholesterol away (HDL-C, also known as "good" cholesterol) and some that deposit cholesterol into tissues and organs (LDL-C, also known as "bad" cholesterol). The cholesterol test measures total cholesterol (HDL and LDL) carried in the blood by lipoproteins. Excess cholesterol may be deposited as plaques on blood vessel walls and can narrow or entirely obstruct blood vessels, leading to hardening of the arteries (atherosclerosis) and increasing the heart disease and stroke.

**Coding Tips**

A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.23. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**cholesterolemia.** Elevated levels of cholesterol in the blood that may be an inherited disorder or caused by certain environmental factors. Report this condition with ICD-9-CM code 272.0.

**HDL.** High-density lipoproteins.

**LDL.** Low-density lipoprotein.

**metabolic syndrome.** Group of health risks that increase the likelihood of developing heart disease, stroke, and diabetes. Diagnosis of metabolic syndrome is made if one has three or more of the following: waist measurement of 40 or more inches for men and 35 or more inches for women; blood pressure of 130/85 mm or higher; triglyceride level greater than 150 mg/dl; fasting blood sugar of more than 100 mg/dl; HDL level less than 40 mg/dl in men or less than 50 mg/dl in women. Report this condition with ICD-9-CM code 277.7, with additional codes to identify associated manifestations. **Synonym(s):** dysmetabolic syndrome, insulin resistance syndrome, syndrome X.

**ICD-9-CM Diagnostic Codes**

<table>
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<th>Code</th>
<th>Description</th>
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<tr>
<td>244.0</td>
<td>Postsurgical hypothyroidism</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>244.1</td>
<td>Other postablative hypothyroidism</td>
</tr>
<tr>
<td>244.2</td>
<td>Iodine hypothyroidism — (Use additional E code to identify drug)</td>
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<tr>
<td>244.3</td>
<td>Other iatrogenic hypothyroidism — (Use additional E code to identify drug)</td>
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<tr>
<td>244.8</td>
<td>Other specified acquired hypothyroidism</td>
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<tr>
<td>244.9</td>
<td>Unspecified hypothyroidism</td>
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<tr>
<td>263.0</td>
<td>Malnutrition of moderate degree</td>
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<td>263.1</td>
<td>Malnutrition of mild degree</td>
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<tr>
<td>263.8</td>
<td>Other protein-calorie malnutrition</td>
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<tr>
<td>263.9</td>
<td>Unspecified protein-calorie malnutrition</td>
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<tr>
<td>272.1</td>
<td>Pure hyperglyceridemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
<td>272.2</td>
<td>Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
<td>278.01</td>
<td>Morbid obesity — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)</td>
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<tr>
<td>278.02</td>
<td>Overweight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54) (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
<td>571.9</td>
<td>Unspecified chronic liver disease without mention of alcohol</td>
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<tr>
<td>573.8</td>
<td>Other specified disorders of liver</td>
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<tr>
<td>579.8</td>
<td>Other specified intestinal malabsorption</td>
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<tr>
<td>581.3</td>
<td>Nephrotic syndrome with lesion of minimal change glomerulonephritis</td>
</tr>
<tr>
<td>581.81</td>
<td>Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 084.9, 249.4, 250.4, 277.30-277.39, 446.0, 710.0)</td>
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<tr>
<td>581.9</td>
<td>Nephrotic syndrome with unspecified pathological lesion in kidney</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.23; 100-4,16,40.6.1; 100-4,16,70.8

**CCI Version 20.0**

80500-80502, 83721

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**82523 - NCD**

**Explanation**

This test may be ordered as collagen crosslink N-telopeptide or pyridinium collagen crosslinks. Pyridinium includes pyrinnol and deoxypyridinoline. Collagen cross-links are markers for bone resorption and are useful in evaluating and managing osteoporosis. A timed urine specimen is required. When testing for N-telopeptide, a two-hour specimen is usually obtained. Pyridinium, including pyrinnol and deoxypyridinoline, requires a 24-hour specimen. When a timed specimen is used, the patient flushes the first urine of the day and discards it. All voided urine for the next 24 hours (or shorter time increment) is collected and refrigerated. Method is enzyme-linked immunosorbent assay (ELISA) for N-telopeptide and high performance liquid chromatography (HPLC) for pyridinium.

**Coding Tips**

A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.19. This code represents tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
<th>Description</th>
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<td>Toxic diffuse goiter without mention of thyrotoxic crisis or storm</td>
</tr>
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<td>242.01</td>
<td>Toxic diffuse goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.10</td>
<td>Toxic uninodular goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.11</td>
<td>Toxic uninodular goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.20</td>
<td>Toxic multinodular goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.21</td>
<td>Toxic multinodular goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.40</td>
<td>Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.41</td>
<td>Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>245.2</td>
<td>Chronic lymphocytic thyroiditis</td>
</tr>
<tr>
<td>252.01</td>
<td>Primary hyperparathyroidism</td>
</tr>
<tr>
<td>252.02</td>
<td>Secondary hyperparathyroidism, non-renal</td>
</tr>
<tr>
<td>256.2</td>
<td>Postablative ovarian failure — (Use additional code for states associated with artificial menopause: 627.4)</td>
</tr>
<tr>
<td>256.31</td>
<td>Premature menopause — (Use additional code for states associated with natural menopause: 627.2)</td>
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**Billing Information**

- **Fac Total**: 0.00
- **Non-Fac Total**: 0.00
- **Malpractice**: 0.00
- **Non-Fac PE**: 0.00
- **Fac PE**: 0.00

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82728 - NCD

Explanation
Serum ferritin level measures available iron stores and is a reliable indicator of normal, as well as deficient, levels. Blood specimen is obtained by venipuncture. Method is radioimmunoassay (RIA), immunoradiometric assay (IRMA), enzyme immunoassay (EIA), or enzyme linked immunosorbent assay (ELISA).

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.18. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
anemia of chronic disease. Anemia occurring as a result of chronic illnesses, such as end stage renal disease, chronic infections, inflammatory disorders, malignancies, or other chronic diseases. Report this disease with a code from ICD-9-CM subcategory 285.2.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200.00</td>
<td>Reticulosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.10</td>
<td>Lymphosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.20</td>
<td>Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.30</td>
<td>Marginal zone lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.40</td>
<td>Mantle cell lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.50</td>
<td>Primary central nervous system lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.60</td>
<td>Anaplastic large cell lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200.70</td>
<td>Large cell lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.80</td>
<td>Other named variants, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>275.01</td>
<td>Hereditary hemochromatosis — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>275.02</td>
<td>Hemochromatosis due to repeated red blood cell transfusions — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>275.03</td>
<td>Other hemochromatosis — (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
<td>280.0</td>
<td>Iron deficiency anemia secondary to blood loss (chronic)</td>
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<tr>
<td>280.1</td>
<td>Iron deficiency anemia secondary to inadequate dietary iron intake</td>
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<tr>
<td>280.9</td>
<td>Unspecified iron deficiency anemia</td>
</tr>
<tr>
<td>569.3</td>
<td>Hemorrhage of rectum and anus</td>
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<tr>
<td>571.1</td>
<td>Acute alcoholic hepatitis</td>
</tr>
<tr>
<td>571.2</td>
<td>Alcoholic cirrhosis of liver</td>
</tr>
<tr>
<td>571.3</td>
<td>Unspecified alcoholic liver damage</td>
</tr>
<tr>
<td>578.9</td>
<td>Hemorrhage of gastrointestinal tract, unspecified</td>
</tr>
<tr>
<td>626.6</td>
<td>Metrorrhagia</td>
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<tr>
<td>626.8</td>
<td>Other disorder of menstruation and other abnormal bleeding from female genital tract</td>
</tr>
<tr>
<td>704.00</td>
<td>Unspecified alopecia</td>
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<td>704.01</td>
<td>Alopecia areata</td>
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<td>964.0</td>
<td>Poisoning by iron and its compounds — (Use additional code to specify the effects of poisoning)</td>
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<tr>
<td>984.0</td>
<td>Toxic effect of inorganic lead compounds — (Use additional code to specify the nature of the toxic effect)</td>
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<td>984.1</td>
<td>Toxic effect of organic lead compounds — (Use additional code to specify the nature of the toxic effect)</td>
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<tr>
<td>999.83</td>
<td>Hemolytic transfusion reaction, incompatibility unspecified</td>
</tr>
<tr>
<td>999.84</td>
<td>Acute hemolytic transfusion reaction, incompatibility unspecified</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.18

CCI Version 20.0
No CCI Edits apply to this code.
Galectin-3

Explanation
This test is used to evaluate for elevated levels of galectin-3, a protein associated with a more serious form of chronic heart failure that is more likely to exacerbate than typical heart failure. The specimen is serum or ethylenediaminetetraacetic acid (EDTA) plasma. Method is enzyme-linked immunosorbent assay (ELISA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
congestive heart failure. Condition caused by the heart's inability to adequately pump and circulate blood, resulting in fluid accumulation in the lungs and other tissues.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
428.1 Left heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.20 Unspecified systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.21 Acute systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.22 Chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)
428.23 Acute on chronic systolic heart failure — (Code, if applicable, heart failure due to hypertension first:

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<th>Fac PE</th>
<th>Malpractice</th>
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<th>Fac Total</th>
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</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Gastric acid analysis, includes pH if performed, each specimen

**Explanation**
Gastric acid analysis is performed on stomach contents obtained via oral or nasogastric (NG) tube. The tube is inserted and the gastric contents are aspirated and discarded. Gastric juices are then collected intermittently for a specified time frame and used to measure the gastric output in both a basal and a stimulated state. Measurement of pH is included, if performed. Report this code once for each specimen obtained.

**Coding Tips**
This code should be reported once for each specimen analyzed. To report insertion of the nasogastric tube see code 43752.

**Terms To Know**
- **Laboratory:** Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
- **Specimen:** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
<th>Description</th>
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<tr>
<td>151.0</td>
<td>Malignant neoplasm of cardia</td>
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<tr>
<td>151.1</td>
<td>Malignant neoplasm of pylorus</td>
</tr>
<tr>
<td>151.2</td>
<td>Malignant neoplasm of pyloric antrum</td>
</tr>
<tr>
<td>151.3</td>
<td>Malignant neoplasm of fundus of stomach</td>
</tr>
<tr>
<td>151.4</td>
<td>Malignant neoplasm of body of stomach</td>
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<tr>
<td>151.5</td>
<td>Malignant neoplasm of lesser curvature of stomach, unspecified</td>
</tr>
<tr>
<td>151.6</td>
<td>Malignant neoplasm of greater curvature of stomach, unspecified</td>
</tr>
<tr>
<td>151.8</td>
<td>Malignant neoplasm of other specified sites of stomach</td>
</tr>
<tr>
<td>151.9</td>
<td>Malignant neoplasm of stomach, unspecified site</td>
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<tr>
<td>197.8</td>
<td>Secondary malignant neoplasm of other digestive organs and spleen</td>
</tr>
<tr>
<td>251.5</td>
<td>Abnormality of secretion of gastrin</td>
</tr>
<tr>
<td>281.0</td>
<td>Pernicious anemia</td>
</tr>
<tr>
<td>530.10</td>
<td>Unspecified esophagitis — (Use additional E code to identify cause, if induced by chemical)</td>
</tr>
<tr>
<td>530.11</td>
<td>Reflux esophagitis — (Use additional E code to identify cause, if induced by chemical)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>249.20</td>
<td>Secondary diabetes mellitus with hyperosmolarity, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)</td>
</tr>
<tr>
<td>250.01</td>
<td>Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.02</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.03</td>
<td>Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled</td>
</tr>
<tr>
<td>250.10</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.11</td>
<td>Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.12</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, uncontrolled</td>
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<td>250.20</td>
<td>Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled</td>
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<td>250.30</td>
<td>Diabetes with other coma, type II or unspecified type, not stated as uncontrolled</td>
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<tr>
<td>250.31</td>
<td>Diabetes with other coma, type I [juvenile type], not stated as uncontrolled</td>
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<tr>
<td>250.32</td>
<td>Diabetes with other coma, type II or unspecified type, uncontrolled</td>
</tr>
<tr>
<td>250.40</td>
<td>Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
</tr>
<tr>
<td>250.50</td>
<td>Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 364.45, 366.41, 369.00-369.9)</td>
</tr>
<tr>
<td>250.60</td>
<td>Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)</td>
</tr>
<tr>
<td>648.04</td>
<td>Maternal diabetes mellitus, complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code(s) to identify the condition)</td>
</tr>
<tr>
<td>648.84</td>
<td>Abnormal maternal glucose tolerance complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-2,1,100; 100-2,11,30.2,2; 100-3,160.17; 100-3,190.20; 100-4,16,40.6,1; 100-4,16,70.8

**CCI Version 20.0**

Also not with 82947: 80500-80502, 82948, 82951, 82953

Also not with 82948: 82950, 82952-82953

Also not with 82950: 82951, 82953

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
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<th>Procedure Codes</th>
<th>Work Value</th>
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<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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<td>0.00</td>
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</tbody>
</table>

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ICD-9-CM Diagnostic Codes

249.01 Secondary diabetes mellitus without mention of complication, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)

249.10 Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

249.40 Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9) (Use additional code to identify any associated insulin use: V58.67)

250.00 Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled

Coding Tips

Codes 82951 and 82952 represent CLIA-waived tests. For an insulin tolerance test, see 80434 and 80435. For a semiquantitative urine glucose test, see 81000, 81002, 81005, and 81099. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state reimburser on codes listed above.

CCI Version 20.0

Also not with 82951: 82948, 82953◆
Also not with 82952: 82947◆, 82953◆

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Glucose, blood by glucose monitoring device(s) cleared by the FDA specifically for home use

Explanation
This test is used to monitor disorders of carbohydrate metabolism. This test reports blood glucose monitoring by an FDA-approved device. While the code states that it is for home use, these devices may also be used in the physician office. Blood is obtained by finger stick. Method is enzymatic, electrochemical, or spectrophotometry by small portable device designed for home glucose testing.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.20.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>250.00</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.01</td>
<td>Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.02</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled</td>
</tr>
<tr>
<td>250.10</td>
<td>Diabetes with ketoadsisis, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.11</td>
<td>Diabetes with ketoadsisis, type I [juvenile type], not stated as uncontrolled</td>
</tr>
<tr>
<td>250.12</td>
<td>Diabetes with ketoadsisis, type II or unspecified type, uncontrolled</td>
</tr>
<tr>
<td>250.21</td>
<td>Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled</td>
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<tr>
<td>250.22</td>
<td>Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled</td>
</tr>
<tr>
<td>250.23</td>
<td>Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled</td>
</tr>
<tr>
<td>250.30</td>
<td>Diabetes with other coma, type II or unspecified type, not stated as uncontrolled</td>
</tr>
<tr>
<td>250.33</td>
<td>Diabetes with other coma, type I [juvenile type], uncontrolled</td>
</tr>
<tr>
<td>250.40</td>
<td>Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
</tr>
<tr>
<td>250.41</td>
<td>Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
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<tr>
<td>250.42</td>
<td>Diabetes with renal manifestations, type II or unspecified type, uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)</td>
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<tr>
<td>250.51</td>
<td>Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)</td>
</tr>
<tr>
<td>250.52</td>
<td>Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)</td>
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<tr>
<td>250.62</td>
<td>Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)</td>
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<td>250.63</td>
<td>Diabetes with neurological manifestations, type I [juvenile type], uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)</td>
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<tr>
<td>250.71</td>
<td>Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)</td>
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<td>250.72</td>
<td>Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)</td>
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<td>250.90</td>
<td>Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled</td>
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<td>250.91</td>
<td>Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled</td>
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<tr>
<td>251.0</td>
<td>Hypoglycemic coma — (Use additional E code to identify drug, if drug induced)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,160.17; 100-3,190.20; 100-4,16,70.8

CCI Version 20.0
82947-82948, 82950-82953

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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<th>Work Value</th>
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<th>Fac PE</th>
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</table>
82977 - NCD

82977  Glutamyltransferase, gamma (GGT)

Explanation
This test may be requested as GGT or glutamyl transpeptidase. GGT is an enzyme. This test may be used to evaluate liver disease in children or as a screening test for alcoholism. Method is radioimmunoassay (RIA).

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.32. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
alcoholism, acute. Psychic and physical state resulting from alcohol ingestion characterized by slurred speech, unsteady gait, poor coordination, flushed face, nystagmus, sluggish reflexes, strong smell of alcohol, loud speech, emotional instability (e.g., jollity followed by gloominess), excessive socializing, talkativeness, and poorly inhibited sexual and aggressive behavior.

enzyme. Complex proteins produced by cells that provide specific chemical functions within the body.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes

070.70  Unspecified viral hepatitis C without hepatic coma
070.71  Unspecified viral hepatitis C with hepatic coma
303.01  Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
303.02  Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.03  Acute alcoholic intoxication, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)
570  Acute and subacute necrosis of liver
571.0  Alcoholic fatty liver
571.1  Acute alcoholic hepatitis
571.2  Alcoholic cirrhosis of liver
571.3  Unspecified alcoholic liver damage
571.5  Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
571.6  Biliary cirrhosis
571.8  Other chronic nonalcoholic liver disease
571.9  Unspecified chronic liver disease without mention of alcohol
573.1  Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)
573.2  Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)
573.3  Unspecified hepatitis — (Use additional E code to identify cause)
573.4  Hepatic infarction
573.8  Other specified disorders of liver
573.9  Unspecified disorder of liver
576.8  Other specified disorders of biliary tract
576.9  Unspecified disorder of biliary tract

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2,11,30.2.2; 100-3,190.32; 100-4,16,40.6.1; 100-4,16,70.8

CCI Version 20.0
No CCI Edits apply to this code.
82985 - NCD

82985 Glycated protein

Explanation
This test may be requested as serum fructosamine test. It is used to assess the level of blood glucose control in the recent past. It is useful in evaluating patient compliance and the accuracy of the patient’s blood glucose self-monitoring. Blood specimen is obtained by venipuncture. Method is colorimetry, nitroblue tetrazolium (NBT).

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.21. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, see codes 36410, 36410, 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, see codes 36410. For venipuncture on a patient younger than 3 years of age performed by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
diabetes mellitus. Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

ICD-9-CM Diagnostic Codes
249.10 Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)
249.11 Secondary diabetes mellitus with ketoacidosis, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)
249.40 Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)
249.41 Secondary diabetes mellitus with renal manifestations, uncontrolled — (Use additional code to identify manifestation: S81.81, S83.81, S85.1-S85.9) (Use additional code to identify any associated insulin use: V58.67)
250.00 Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled
250.01 Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled
250.02 Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled
250.20 Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled
250.21 Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled
250.22 Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled
250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)
250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)
250.73 Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)
250.90 Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled
250.91 Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled
250.92 Diabetes with unspecified complication, type II or unspecified type, uncontrolled
250.93 Diabetes with unspecified complication, type I [juvenile type], uncontrolled
251.0 Hypoglycemic coma — (Use additional E code to identify drug, if drug induced)
251.1 Other specified hypoglycemia — (Use additional E code to identify drug, if drug induced)
251.2 Hypoglycemia, unspecified
790.21 Impaired fasting glucose
790.22 Impaired glucose tolerance test (oral)
790.29 Other abnormal glucose

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.21; 100-4,16,70.8

CCI Version 20.0
83036-83037

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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ICD-9-CM Diagnostic Codes

249.01 Secondary diabetes mellitus without mention of complication, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)

249.20 Secondary diabetes mellitus with hyperosmolarity, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)

249.21 Secondary diabetes mellitus with hyperosmolarity, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)

249.41 Secondary diabetes mellitus with renal manifestations, uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9) (Use additional code to identify any associated insulin use: V58.67)

249.50 Secondary diabetes mellitus with ophthalmic manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9) (Use additional code to identify any associated insulin use: V58.67)

250.00 Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled

250.01 Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled

250.10 Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled

250.20 Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled

250.21 Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled

250.40 Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)

250.41 Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)

250.50 Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)

250.51 Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)

250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)

250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)

250.71 Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)

648.04 Maternal diabetes mellitus, complicating pregnancy, childbirth, or the puerperium, unspecified as complication — (Use additional code(s) to identify the condition)

648.80 Abnormal maternal glucose tolerance, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)

790.21 Impaired fasting glucose

790.22 Impaired glucose tolerance test (oral)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-3,190.21; 100-4,16,70.8

CCI Version 20.0

Also not with 83037: 83036

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**83516-83520**

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>83516</td>
<td>Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; qualitative or semiquantitative, multiple step method</td>
</tr>
<tr>
<td>83518</td>
<td>qualitative or semiquantitative, single step method (eg, reagent strip)</td>
</tr>
<tr>
<td>83519</td>
<td>quantitative, by radioimmunoassay (eg, RIA)</td>
</tr>
<tr>
<td>83520</td>
<td>quantitative, not otherwise specified</td>
</tr>
</tbody>
</table>

**Explanation**

Immunoassay uses highly specific antigen to antibody binding to identify specific chemical substances. This code reports a number of immunoassay techniques for identifying analytes (chemical substances) that are not specifically identified elsewhere, excluding infectious agent antibody or infectious agent antigen. More specific methods reported with these codes include enzyme immunoassay (EIA) and fluoroimmunoassay (FIA). This test identifies (qualitative analysis) the substance or roughly measures (semi-quantitative analysis) the amount of the substance. Code 83516 reports multiple step method, while 83518 reports single step method. Report 83519 for measurement (quantitative analysis) using radioimmunoassay (RIA) technique for identifying analytes (chemical substances) that are not specifically identified elsewhere, excluding infectious agent antibody or infectious agent antigen. Report 83520 for measurement (quantitative analysis) using a technique other than radioimmunoassay (RIA) for identifying analytes (chemical substances) that are not specifically identified elsewhere, excluding infectious agent antibody or infectious agent antigen.

**Coding Tips**

To report immunoassays for antibodies to infectious agents, see codes 86000-86849. Immunoassay of tumor antigen not classified elsewhere is reported using 86316. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

analyte. Any material or chemical substance subjected to analysis.

antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.

assay. Test of purity.

qualitative. To determine the nature of the component of substance.

quantitative. To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
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<tr>
<td>188.0</td>
<td>Malignant neoplasm of trigone of urinary bladder</td>
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<tr>
<td>188.1</td>
<td>Malignant neoplasm of dome of urinary bladder</td>
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<tr>
<td>188.2</td>
<td>Malignant neoplasm of lateral wall of urinary bladder</td>
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<tr>
<td>188.3</td>
<td>Malignant neoplasm of anterior wall of urinary bladder</td>
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<tr>
<td>188.4</td>
<td>Malignant neoplasm of posterior wall of urinary bladder</td>
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<tr>
<td>188.5</td>
<td>Malignant neoplasm of bladder neck</td>
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<tr>
<td>188.6</td>
<td>Malignant neoplasm of ureteric orifice</td>
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<td>188.7</td>
<td>Malignant neoplasm of urachus</td>
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<tr>
<td>188.8</td>
<td>Malignant neoplasm of other specified sites of bladder</td>
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<tr>
<td>188.9</td>
<td>Malignant neoplasm of bladder, part unspecified</td>
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<tr>
<td>233.7</td>
<td>Carcinoma in situ of bladder</td>
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<tr>
<td>239.4</td>
<td>Neoplasm of unspecified nature of bladder</td>
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<tr>
<td>V10.51</td>
<td>Personal history of malignant neoplasm of bladder</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4,16,70.8

**CCI Version 20.0**

Also not with 83516: 83518
Also not with 83519: 78267, 83516
Also not with 83520: 78267, 83519

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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proximal end and consisting of the duodenum, jejunum, and ileum.

**Explanation**

The test reported by code 83540 may also be requested as Fe. Iron is an essential constituent of hemoglobin, which is present in foods and absorbed through the small bowel (duodenum and jejunum). Method is colorimetry or atomic absorption spectrophotometry. This test is often used in combination with other tests to evaluate anemia, acute leukemia, lead poisoning, acute hepatitis, and vitamin B6 deficiency. It is also used to evaluate iron poisoning caused by accidental overdose (children) or excessive use of supplements. Iron binding capacity is abbreviated as TIBC and reported with 83550. Iron is an essential constituent of hemoglobin, which is present in foods and absorbed through the small bowel (duodenum and jejunum). Method is colorimetry or atomic absorption spectrophotometry. TIBC measures the total amount of iron capable of binding to the protein transferrin. This test is often used in combination with other tests to evaluate anemia, various neoplasms, acute hepatitis and other liver disease, hemochromatosis, thalassemia, and renal disease.

**Coding Tips**

A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.18. Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36413. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **anemia.** Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
- **anemia of chronic disease.** Anemia occurring as a result of chronic illnesses, such as end stage renal disease, chronic infections, inflammatory disorders, malignancies, or other chronic diseases. Report this disease with a code from ICD-9-CM subcategory 285.2.
- **hemoglobin.** Oxygen-carrying component of the red blood cell.
- **leukemia.** Malignancy of the blood and blood-forming organs manifested by abnormal proliferation or development of leukocytes and their developmental precursors in the blood and bone marrow. Acute and chronic classifications in leukemia refer to the degree that the malignant cells have differentiated and not to the length of the disease itself. The predominant type of cell involved, whether myelogenous or lymphocytic, also determines classification.
- **small intestine.** First portion of intestine connecting to the pylorus at the proximal end and consisting of the duodenum, jejunum, and ileum.

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<th>Description</th>
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<tr>
<td>83540</td>
<td>Iron</td>
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<tr>
<td>83550</td>
<td>Iron binding capacity</td>
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<table>
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<tr>
<th>ICD-9-CM Diagnostic Codes</th>
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<tr>
<td>280.0 Iron deficiency anemia secondary to blood loss (chronic)</td>
</tr>
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<td>280.1 Iron deficiency anemia secondary to inadequate dietary iron intake</td>
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<td>280.8 Other specified iron deficiency anemias</td>
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<td>280.9 Unspecified iron deficiency anemia</td>
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<td>281.0 Pernicious anemia</td>
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<td>281.2 Folate-deficiency anemia — (Use additional E code to identify drug)</td>
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<td>281.3 Other specified megaloblastic anemias not elsewhere classified</td>
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<td>281.4 Protein-deficiency anemia</td>
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<td>281.8 Anemia associated with other specified nutritional deficiency</td>
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<tr>
<td>285.1 Acute posthemorrhagic anemia</td>
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<td>285.21 Anemia in chronic kidney disease</td>
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<td>285.22 Anemia in neoplastic disease</td>
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<td>287.5 Unspecified thrombocytopenia</td>
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<td>287.8 Other specified hemorrhagic conditions</td>
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<td>530.7 Gastroesophageal laceration-hemorrhage syndrome</td>
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<td>530.82 Esophageal hemorrhage</td>
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<td>531.00 Acute gastric ulcer with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)</td>
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<td>531.01 Acute gastric ulcer with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)</td>
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<tr>
<td>531.21 Acute gastric ulcer with hemorrhage, perforation, and obstruction — (Use additional E code to identify drug, if drug induced)</td>
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<tr>
<td>532.00 Acute duodenal ulcer with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)</td>
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<tr>
<td>534.20 Acute gastrojugal ulcer with hemorrhage and perforation, without mention of obstruction</td>
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<tr>
<td>534.21 Acute gastrojugal ulcer with hemorrhage, perforation, and obstruction</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.18

**CCI Version 20.0**

No CCI Edits apply to this code.

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83655
83655  Lead

Explanation
This test may be ordered using Pb, the chemical abbreviation for lead. A whole blood test may be used to identify more recent lead exposures; the urine test is used to determine lead body burden, rather than to diagnose lead poisoning. In some instances, serum, hair samples, or bronchoalveolar lavage fluids may be tested. Specimen collection for urine is usually a 24-hour collection. Method used is source dependent, but commonly electrothermal atomic absorption spectrometry (AAS). Bronchoalveolar lavage specimens may be tested by x-ray fluorescence spectrometry.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
broncho-. Relating to the trachea.
lavage. Washing.
peripheral neuropathy. Known or unknown functional disturbance, disease process, or pathological change within the peripheral nervous system. It may be due to a noninflammatory lesion, nerve diseases, nerve injury or compression, or the result of another systemic illness such as diabetes, AIDS, uremia, or nutritional disorders.

ICD-9-CM Diagnostic Codes
356.9  Unspecified hereditary and idiopathic peripheral neuropathy
790.01  Precipitous drop in hematocrit
790.09  Other abnormality of red blood cells
793.7  Nonspecific (abnormal) findings on radiological and other examination of musculoskeletal system
984.0  Toxic effect of inorganic lead compounds — (Use additional code to specify the nature of the toxic effect)
984.1  Toxic effect of organic lead compounds — (Use additional code to specify the nature of the toxic effect)
984.8  Toxic effect of other lead compounds — (Use additional code to specify the nature of the toxic effect)
984.9  Toxic effect of unspecified lead compound — (Use additional code to specify the nature of the toxic effect)
V15.86  Personal history of contact with and (suspected) exposure to lead

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
No CCI Edits apply to this code.
ICD-9-CM Diagnostic Codes

642.41 Mild or unspecified pre-eclampsia, with delivery
642.42 Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication
642.43 Mild or unspecified pre-eclampsia, antepartum
642.44 Mild or unspecified pre-eclampsia, antepartum condition or complication
642.51 Severe pre-eclampsia, with delivery
642.52 Severe pre-eclampsia, with delivery, with current postpartum complication
642.53 Severe pre-eclampsia, antepartum
642.54 Severe pre-eclampsia, antepartum condition or complication
642.61 Eclampsia, with delivery
642.62 Eclampsia, with delivery, with current postpartum complication
642.63 Eclampsia, antepartum
642.64 Eclampsia, postpartum condition or complication

Coding Tips
To report phosphatidylglycerol, see code 84081.

Explanation
Specimen collection is by amniocentesis, but amniotic fluid may be collected vaginally after rupture of the amniotic membrane. These tests indicate fetal pulmonary maturation and newborn risk for respiratory distress syndrome. For 83661, the test determines fetal pulmonary maturation and may be an indicator for the possibility of development of respiratory distress syndrome (RDS). Method used is thin-layer chromatography (TLC) and a 1D or 2D approach may be specified. Code 83662 may also be ordered as pulmonary surfactant or the "shake test." Method involves diluting amniotic fluid with ethanol and shaking the specimen. The test may also be useful in managing other conditions in both mother and fetus during late stages of pregnancy. For 83663, the amniotic fluid is analyzed by fluorescent polarization (FPOL). A fluorescent phospholipid analogue is added to amniotic fluid and its fluorescence polarization is measured using a fluorescence polarimeter. The presence of increased amounts of surfactant indicating increased lung maturty result in lower polarization levels. Therefore, polarization values decrease during gestation in conjunction with maturation of the pulmonary surfactant system. For 83664 the lamellar body density is calculated by measuring the number of surfactant containing particles per microliter of amniotic fluid. Method is automated cell count.

CCI Version 20.0

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
83670
83670  Leucine aminopeptidase (LAP)

Explanation
This test may also be ordered as LAP or leucyl aminopeptidase. Methods are commonly colorimetry, fluorometry, and enzyme assay. The test is commonly used to measure biliary excretory function for differential diagnoses of liver and pancreatic disorders.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- calculus. Abnormal, stone-like concretion of calcium, cholesterol, mineral salts, or other substances that forms in any part of the body.
- cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
- malignant. Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
- pancreatitis. Inflammation of the pancreas that may be acute or chronic, symptomatic or asymptomatic, due to the autodigestion of pancreatic tissue by its own enzymes that have escaped into the pancreas, most often as a result of alcoholism or biliary tract disease such as calculi in the pancreatic duct.

ICD-9-CM Diagnostic Codes
- 157.0 Malignant neoplasm of head of pancreas
- 157.1 Malignant neoplasm of body of pancreas
- 157.2 Malignant neoplasm of tail of pancreas
- 157.3 Malignant neoplasm of pancreatic duct
- 157.4 Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)
- 157.8 Malignant neoplasm of other specified sites of pancreas
- 157.9 Malignant neoplasm of pancreas, part unspecified
- 197.7 Secondary malignant neoplasm of liver
- 571.6 Biliary cirrhosis
- 572.8 Other sequelae of chronic liver disease
- 574.20 Calculus of gallbladder without mention of cholecystitis or obstruction
- 574.21 Calculus of gallbladder without mention of cholecystitis, with obstruction

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**ICD-9-CM Diagnostic Codes**

- **533.00** Acute peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
- **533.01** Acute peptic ulcer, unspecified site, with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
- **533.10** Acute peptic ulcer, unspecified site, with perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
- **533.11** Acute peptic ulcer, unspecified site, with perforation and obstruction — (Use additional E code to identify drug, if drug induced)
- **533.20** Acute peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)

**Terms To Know**

- **calculus.** Abnormal, stone-like concretion of calcium, cholesterol, mineral salts, or other substances that forms in any part of the body.
- **ileus.** Persistent obstruction of the intestines coded in different chapters in ICD-9-CM based on its type or cause, location, and whether it occurs in a newborn.
- **pancreatitis.** Inflammation of the pancreas that may be acute or chronic, symptomatic or asymptomatic, due to the autodigestion of pancreatic tissue by its own enzymes that have escaped into the pancreas, most often as a result of alcoholism or biliary tract disease such as calculi in the pancreatic duct.
- **volvulus.** Twisting, knotting, or entanglement of the bowel on itself that may quickly compromise oxygen supply to the intestinal tissues. A volvulus usually occurs at the sigmoid and ileocecal areas of the intestines.

**Coding and Payment Guide for Laboratory Services**

<table>
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<tr>
<td>83690</td>
<td>Lipase</td>
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**Explanation**

This test may also be called triacylglycerol acylhydrolase. Method is often by turbidimetric, a specialized processor. The test is used generally to indicate pancreatic, hepatic duct, and renal disorders.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **calculus.** Abnormal, stone-like concretion of calcium, cholesterol, mineral salts, or other substances that forms in any part of the body.
- **ileus.** Persistent obstruction of the intestines coded in different chapters in ICD-9-CM based on its type or cause, location, and whether it occurs in a newborn.
- **pancreatitis.** Inflammation of the pancreas that may be acute or chronic, symptomatic or asymptomatic, due to the autodigestion of pancreatic tissue by its own enzymes that have escaped into the pancreas, most often as a result of alcoholism or biliary tract disease such as calculi in the pancreatic duct.
- **volvulus.** Twisting, knotting, or entanglement of the bowel on itself that may quickly compromise oxygen supply to the intestinal tissues. A volvulus usually occurs at the sigmoid and ileocecal areas of the intestines.

**ICD-9-CM Diagnostic Codes**

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**CCI Version 20.0**

No CCI Edits apply to this code.
Lipoprotein (a)

Lipoprotein-associated phospholipase A2 (Lp-PLA2)

**Explanation**

This test, 83695 may also be requested as Lp (a). Lipoprotein (a) is a low-density lipoprotein associated with clot formation, hardening and narrowing of the arteries. The patient is instructed to fast for 12 hours prior to this test. A blood specimen is obtained through venipuncture. Lipoprotein (a) is measured using an enzyme-linked immunosorbent assay (ELISA). Code 83698 is also ordered as a PLAC. The test measures an enzyme called lipoprotein-associated phospholipase A2. Persons at risk for heart disease or stroke may have higher levels of this enzyme. The specimen is blood serum or plasma. The PLAC test is typically a microplate-based enzyme-linked sandwich immunosorbent assay. The test is a component of clinical risk assessment for coronary artery disease and ischemic stroke associated with atherosclerosis.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**


**ICD-9-CM Diagnostic Codes**

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<td>414.03</td>
<td>Coronary atherosclerosis of nonautologous biological bypass graft — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>Coronary atherosclerosis of artery bypass graft — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>414.06</td>
<td>Coronary atherosclerosis, of native coronary artery of transplanted heart — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>414.07</td>
<td>Coronary atherosclerosis, of bypass graft (artery) (vein) of transplanted heart — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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**CCI Version 20.0**

Also not with 83695: 80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
83700-83704 - NCD

83700 Lipoprotein, blood; electrophoretic separation and quantitation
83701 high resolution fractionation and quantitation of lipoproteins including lipoprotein subclasses when performed (eg, electrophoresis, ultracentrifugation)
83704 quantitation of lipoprotein particle numbers and lipoprotein particle subclasses (eg, by nuclear magnetic resonance spectroscopy)

Explanation
Lipoproteins are comprised of subclasses of lipoprotein particles. These subclasses are of different sizes, lipid and apolipoprotein composition, and function. Elevated levels of lipoproteins serve as a marker for premature coronary heart disease. The patient is fasting. Venipuncture is performed to obtain a blood sample. The test reported by code 83700 is performed using electrophoretic methods on plasma using a homogeneous gel to separate particles based on size. Code 83701 may also be referred to as Type III fractionation. Type III hyperlipoproteinemia is an inherited disorder whereby both the cholesterol and triglycerides show high plasma concentrations. This particular test is usually performed following previous tests to further isolate abnormal beta-lipoproteins. The test may be performed by various methods including ultracentrifugation or electrophoresis. Ultracentrifugation is more common and is considered the traditional standard for accuracy in high-density lipoproteins (HDL) subclass quantitation. For the test reported by code 83704, the subclasses of lipoprotein contained in plasma are determined by measurement of the plasma nuclear magnetic resonance (NMR) spectrum followed by computerized reversal of the optical distortion creating a clearer image (deconvolution) of the spectral data and calculation of the subclass concentrations. Each lipoprotein particle in plasma “broadcasts” a distinctive lipid NMR signal that is graphed. The deconvolution and calculation steps are computed by using analysis software.

Coding Tips
A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.23. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
cholesterolemia. Elevated levels of cholesterol in the blood that may be an inherited disorder or caused by certain environmental factors. Report this condition with ICD-9-CM code 272.0.
HDL. High-density lipoproteins.

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Lipoprotein, direct measurement; high density cholesterol (HDL cholesterol)

VLDL cholesterol

LDL cholesterol

Explanation
This test may be requested as HDL, HDLC, or HDL cholesterol. Lipoproteins are compounds composed of lipids bound to proteins, which are transported through the blood. High-density lipoprotein (HDL) is frequently referred to as "good cholesterol," or "friendly lipid," as it is responsible for decreasing plaque deposits in blood vessels. High levels of HDL decrease the risk of premature coronary artery disease. This code reports direct measurement only, normally performed using an enzymatic or precipitation method. To measure VLDL, the lipoprotein that carries triglycerides in the blood, report 82719. The test is useful to determine a patient's risk of arteriosclerotic occlusive disease, as well as other cholesterol-related disorders. The method used is electrophoresis and may first involve ultracentrifugation. Report 83721, also referred to as LDL-C, when measuring the amount of low-density lipoprotein (LDL), also known as "bad cholesterol." The test is useful to determine the patient's risk of coronary heart disease (CHD), among other disorders. Method may be by precipitation procedure with results derived by the Friedewald formula.

Coding Tips
A national coverage determination (NCD) applies to codes 83718 and 83721. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.23. These codes represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. For fractionation by high resolution electrophoresis or ultracentrifugation, see 83701. When analysis is performed by nuclear magnetic resonance spectroscopy for lipoprotein particle numbers and subclasses, see 83704. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know


HDL. High-density lipoproteins.

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ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-3,190.23; 100-4,16,70.8

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Magnesium, abbreviated Mg, is an inorganic cation essential for many physiochemical processes. It is an enzyme activator found in body fluids and cells. Magnesium depletion is clinically associated with weakness and neuromuscular disorders including cardiac arrhythmias and seizures. Intravenous therapy, malabsorption, dialysis, pregnancy, toxicity, and conditions such as hyperparathyroidism and hyperaldosteronism deplete magnesium. Specimen types and methods of testing vary. Colorimetry or spectrophotometry are methods frequently used.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

249.10 Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified — (Use additional code to identify any associated insulin use: V58.67)
249.11 Secondary diabetes mellitus with ketoacidosis, uncontrolled — (Use additional code to identify any associated insulin use: V58.67)
250.10 Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled
250.11 Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled
250.12 Diabetes with ketoacidosis, type II or unspecified type, uncontrolled
250.13 Diabetes with ketoacidosis, type I [juvenile type], uncontrolled
276.2 Acidosis — (Use additional code to identify any associated intellectual disabilities)
276.50 Volume depletion, unspecified — (Use additional code to identify any associated intellectual disabilities)
307.51 Bulimia nervosa
536.2 Persistent vomiting
585.1 Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

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CCI Version 20.0
No CCI Edits apply to this code.
83775 Malate dehydrogenase

Explanation
This test may also be known as MDH, or MD. This enzyme is widely distributed in the system’s cellular makeup and levels follow lactate dehydrogenase activity. The test is probably considered of general usefulness and indications are that it is not frequently run. Specimen collection is by venipuncture for blood; surgical excision or biopsy for tissue. Methodology may be by electrophoresis.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
analyte. Any material or chemical substance subjected to analysis.
biopsy. Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.
excision. Surgical removal of an organ or tissue.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
171.4 Malignant neoplasm of connective and other soft tissue of thorax
171.5 Malignant neoplasm of connective and other soft tissue of abdomen
171.6 Malignant neoplasm of connective and other soft tissue of pelvis
174.4 Malignant neoplasm of upperouter quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.5 Malignant neoplasm of lowerouter quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.6 Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
176.3 Kaposi’s sarcoma of gastrointestinal sites
176.4 Kaposi’s sarcoma of lung
176.5 Kaposi’s sarcoma of lymph nodes
180.9 Malignant neoplasm of cervix uteri, unspecified site
181 Malignant neoplasm of placenta
182.0 Malignant neoplasm of corpus uteri, except isthmus
183.9 Malignant neoplasm of uterine adnexa, unspecified site
187.2 Malignant neoplasm of glans penis
187.3 Malignant neoplasm of body of penis
187.4 Malignant neoplasm of penis, part unspecified
188.0 Malignant neoplasm of trigone of urinary bladder
188.1 Malignant neoplasm of dome of urinary bladder
188.2 Malignant neoplasm of lateral wall of urinary bladder
202.85 Other malignant lymphomas of lymph nodes of inguinal region and lower limb

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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83785
83785 Manganese

Explanation
This test is usually performed to determine manganese toxicity, exposure, or poisoning. Specimen collection may be venipuncture, 24-hour urine collection, or random or spot urine samples. Hair is sometimes analyzed as is fluid from bronchoalveolar lavage. Methods are source dependent and include neutron activation and atomic absorption spectrophotometry (AAS) with Zeeman background correction for blood and urine. Hair may be processed with acetone and nitric acid before testing with AAS as well. Fluids are likely to be x-ray fluorescence spectrum.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Lavage. Washing.
Specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
966.3 Poisoning by other and unspecified anticonvulsants — (Use additional code to specify the effects of poisoning)
973.0 Poisoning by antacids and antigastric secretion drugs — (Use additional code to specify the effects of poisoning)
973.3 Poisoning by other cathartics, including intestinal atonia drugs — (Use additional code to specify the effects of poisoning)
985.2 Toxic effect of manganese and its compounds — (Use additional code to specify the nature of the toxic effect)
985.8 Toxic effect of other specified metals — (Use additional code to specify the nature of the toxic effect)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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83788-83789

83788 Mass spectrometry and tandem mass spectrometry (MS, MS/MS), analyte not elsewhere specified; qualitative, each specimen
83789 quantitative, each specimen

**Explanation**

This test identifies the presence (qualitative) of specific analytes in protein. The specimen varies. Method is mass spectrometry. The test is used for identifying the chemical makeup and structure of a substance. Tandem MS (MS/MS) is a method using sequential analysis to provide structural information by establishing relationships between substances. This test assists in analyzing viruses, sequencing and analyzing peptides and proteins, and providing information on such life-threatening diseases as AIDS and various types of skin cancers. For 83789 the method is mass spectrometry (MS). This test quantifies (measures) the amount of analyte in the specimen.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **analyte.** Any material or chemical substance subjected to analysis.
- **qualitative.** To determine the nature of the component of substance.
- **quantitative.** To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**

Also not with 83789: 83788

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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83840

83840  Methadone

Explanation
This test is used to measure toxicity and the determination of methadone in the system in cases of drug abuse. The specimen is a random urine sample. Methods for screening purposes are thin-layer chromatography and enzyme immunoassay; for confirmation, gas chromatography/mass spectrometry. This agent is widely used in the detoxification of opiate addicts.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

drug abuse. Individual, for whom no other diagnosis is possible, has come under medical care because of the maladaptive effect of a drug on which he is not dependent (see Drug dependence) and that he has taken on his own initiative to the detriment of his health or social functioning.

paranoia. Rare chronic psychosis in which logically constructed systematized delusions of grandeur, persecution, or somatic abnormality have developed gradually without concomitant hallucinations or the schizophrenic type of disordered thinking. alcoholic p. Chronic paranoid psychosis characterized by delusional jealousy and associated with alcoholism. p. querulans Paranoid state that may present as schizophrenic or affective state. Symptoms differ from other paranoid states and psychogenic paranoid psychosis. senile p. Paranoid psychosis in which there are conspicuous hallucinations, often in several modalities. May be associated with mild affective symptoms and well-preserved personality.

ICD-9-CM Diagnostic Codes

292.89  Other specified drug-induced mental disorder — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)

297.9  Unspecified paranoid state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

298.9  Unspecified psychosis — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

304.00  Opioid type dependence, unspecified

304.01  Opioid type dependence, continuous

304.02  Opioid type dependence, episodic

304.03  Opioid type dependence, in remission

304.90  Unspecified drug dependence, unspecified

305.50  Nondependent opioid abuse, unspecified

305.51  Nondependent opioid abuse, continuous

305.52  Nondependent opioid abuse, episodic

305.53  Nondependent opioid abuse, in remission

305.90  Other, mixed, or unspecified nondependent drug abuse, unspecified

305.91  Other, mixed, or unspecified nondependent drug abuse, continuous

305.92  Other, mixed, or unspecified nondependent drug abuse, episodic

305.93  Other, mixed, or unspecified nondependent drug abuse, in remission

518.81  Acute respiratory failure

965.09  Poisoning by opiates and related narcotics, other — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Myoglobin is a principle protein of skeletal and cardiac muscle tissue. Elevated serum levels may be found in severe muscle conditions, such as polymyositis and crushing traumas to muscle and bone. This test may be used in association with other disorders as well, such as acute myocardial infarct and infections. Methods include radioimmunoassay (RIA), fluorometric immunoassay, and immunoturbidimetry for blood. Urine specimens may be processed by antigen-antibody reaction nephelometry.

**Coding Tips**

Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers consider venipuncture on a patient younger than 3 years of age to be a separate procedure and code 36410. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, by a phlebotomist, or other health care provider, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff, if a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

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<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
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<tr>
<td>359.1</td>
<td>Hereditary progressive muscular dystrophy</td>
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<tr>
<td>410.01</td>
<td>Acute myocardial infarction of anterolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.02</td>
<td>Acute myocardial infarction of anterolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.11</td>
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<td>Acute myocardial infarction of inferolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.32</td>
<td>Acute myocardial infarction of interposterior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.41</td>
<td>Acute myocardial infarction of other inferior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.42</td>
<td>Acute myocardial infarction of other inferior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.51</td>
<td>Acute myocardial infarction of other lateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.52</td>
<td>Acute myocardial infarction of other lateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.61</td>
<td>Acute myocardial infarction, true posterior wall infarction, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.72</td>
<td>Acute myocardial infarction, subendocardial infarction, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>410.81</td>
<td>Acute myocardial infarction of other specified sites, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>710.0</td>
<td>Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)</td>
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<tr>
<td>710.3</td>
<td>Dermatomyositis</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Myeloperoxidase (MPO) is a quantitative cardiac marker for ischemic heart disease. Plasma MPO levels help to identify patients who are at risk for myocardial infarction, particularly when used in addition to existing markers for cardiovascular disease. This code reports a myeloperoxidase enzyme immunoassay for use in identifying troponin-negative patients without EKG changes presenting with chest pain who are at higher risk, and may also be used in myeloproliferative disorders.

Coding Tips
Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

| 410.01 | Acute myocardial infarction of anterolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.02 | Acute myocardial infarction of anterolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.11 | Acute myocardial infarction of other anterior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.12 | Acute myocardial infarction of other anterior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.21 | Acute myocardial infarction of inferolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.22 | Acute myocardial infarction of inferolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.31 | Acute myocardial infarction of inferoposterior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.32 | Acute myocardial infarction of inferoposterior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.41 | Acute myocardial infarction of other inferior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.42 | Acute myocardial infarction of other inferior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.51 | Acute myocardial infarction of other lateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.52 | Acute myocardial infarction of other lateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.61 | Acute myocardial infarction, true posterior wall infarction, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.62 | Acute myocardial infarction, true posterior wall infarction, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.71 | Acute myocardial infarction, subendocardial infarction, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 410.72 | Acute myocardial infarction, subendocardial infarction, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 411.0 | Postmyocardial infarction syndrome — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 411.1 | Intermediate coronary syndrome — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 411.81 | Acute coronary occlusion without myocardial infarction — (Use additional code to identify presence of hypertension: 401.0-405.9) |
| 412 | Old myocardial infarction — (Use additional code to identify presence of hypertension: 401.0-405.9) |

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

| 83520, 84311 |
| Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Natriuretic peptide

Explanation
Plasma levels of natriuretic peptides, particularly B-type, help predict left ventricular hypertrophy and systolic dysfunction, determine CHF in asymptomatic patients, and provide risk assessment after ischemic symptoms in coronary syndromes. The specimen is plasma.

Radioimmunoassay (RIA) may be used.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
402.01 Malignant hypertensive heart disease with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)
402.11 Benign hypertensive heart disease with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)
402.91 Hypertensive heart disease, unspecified, with heart failure — (Use additional code to specify type of heart failure, 428.0-428.43, if known)
404.01 Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)
404.11 Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)
404.13 Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.5-585.6)
423.2 Constrictive pericarditis
423.3 Cardiac tamponade
425.4 Other primary cardiomyopathies
786.02 Orthopnea
786.05 Shortness of breath
786.06 Tachypnea
786.07 Wheezing
786.09 Other dyspnea and respiratory abnormalities

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
No CCI Edits apply to this code.

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Nucleotidase 5'-

Explanation
This test is also known as 5'-N'TASE, and 5'-NT. The specimen is serum or synovial fluid. Methods vary greatly, and may include molybdate color reaction, high performance liquid chromatography, and colorimetry. The test may be ordered to assist in identifying the cause of increased 5'-nucleotidase, a liver-related enzyme.

Coding Tips
Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
calculus. Abnormal, stone-like concretion of calcium, cholesterol, mineral salts, or other substances that forms in any part of the body.
cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
enzyme. Complex proteins produced by cells that provide specific chemical functions within the body.

ICD-9-CM Diagnostic Codes
197.7 Secondary malignant neoplasm of liver
203.00 Multiple myeloma, without mention of having achieved remission
203.01 Multiple myeloma in remission
203.02 Multiple myeloma, in relapse
571.6 Biliary cirrhosis
574.01 Calculus of gallbladder with acute cholecystitis and obstruction
574.11 Calculus of gallbladder with other cholecystitis and obstruction
574.21 Calculus of gallbladder without mention of cholecystitis, with obstruction
574.31 Calculus of bile duct with acute cholecystitis and obstruction
574.41 Calculus of bile duct with other cholecystitis and obstruction
574.51 Calculus of bile duct without mention of cholecystitis, with obstruction
574.61 Calculus of gallbladder and bile duct with acute cholecystitis, with obstruction
574.71 Calculus of gallbladder and bile duct with other cholecystitis, with obstruction
574.81 Calculus of gallbladder and bile duct with acute and chronic cholecystitis, with obstruction
574.91 Calculus of gallbladder and bile duct without cholecystitis, with obstruction
576.2 Obstruction of bile duct
731.0 Osteitis deformans without mention of bone tumor

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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83916
83916  Oligoclonal immune (oligoclonal bands)

Explanation
The specimen is cerebrospinal fluid (CFS) and serum. Methods may include thin-gel agarose high-resolution electrophoresis and isoelectric focusing. This test may be used to identify diagnoses of inflammatory and autoimmune diseases of the CNS and other degenerative states.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
dementia. Progressive decrease in intellectual functioning of sufficient severity to interfere with occupational or social performance, with impairment of memory and abstract thinking, the ability to learn new skills, problem solving, and judgment. May involve personality change or impairment in impulse control. alcoholic d. Nonhallucinatory dementias occurring in association with alcoholism but not characterized by the features of alcohol withdrawal delirium (delirium tremens) or alcoholic amnestic syndrome (Korsakoff’s alcoholic psychosis). arteriosclerotic d. Dementia attributable, because of physical signs (confirmed by examination of the central nervous system), to degenerative arterial disease of the brain. multi-infarct d. Dementia attributable, because of physical signs, to degenerative arterial disease of the brain caused by multiple infarctions (an ischemic condition causing local tissue death). presenile d. Dementia occurring usually before the age of 65 in patients with the relatively rare forms of diffuse or lobar cerebral atrophy usually caused by an associated neurological condition. repeated infarct d. Dementia attributable, because of physical signs, to degenerative arterial disease of the brain caused by repeated infarctions. senile d. Dementia occurring usually after the age of 65 in which any cerebral pathology other than that of senile atrophic change can be reasonably excluded.
sclerose. To become hard or firm and indurated from increased formation of connective tissue or disease.

ICD-9-CM Diagnostic Codes
046.2  Subacute sclerosing panencephalitis
290.10  Presenile dementia, uncomplicated — (Code first the associated neurological condition)
290.11  Presenile dementia with delirium — (Code first the associated neurological condition)
290.12  Presenile dementia with delusional features — (Code first the associated neurological condition)

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CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
83918-83921

83918 Organic acids; total, quantitative, each specimen
83919 qualitative, each specimen
83921 Organic acid, single, quantitative

Explanation
These tests involve analyzing patterns of excretion for a specific diagnosis. Urine is the preferred specimen due to concentration of the metabolites excreted by the kidney. Urine collection is typically over a 24-hour period. Methods may include gas chromatography, followed by mass spectroscopy. There are many sources for organic acids, though most come from the metabolism of amino acids, fatty acids, carbohydrates, and cholesterol, and hormones such as steroids. Abnormal patterns of organic acids in excretion may be due to genetic metabolic disorders, vitamin deficiencies, and certain drugs. Report 83918 for a quantitative test, each specimen. Qualitative screening tests, reported with 83919, are typically performed by thin layer chromatography, but may involve other chemical or chromatographic techniques. Code 83921 is used to report a quantitative test for organic acids. Methods may include gas chromatography, followed by mass spectroscopy. The test may be performed on acutely ill neonates, suspected cases of Reye's syndrome, or failure-to-thrive syndrome, and patients with metabolic acidosis, (associated with severe infections).

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
acidosi. Reduction of alkaline in the blood and tissues.
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.
Reyee's syndrome. Condition of childhood spawned by a spirochetic or viral disease of the upper respiratory system. Symptoms include recurrent vomiting, brain swelling, disturbances of consciousness, and seizures. Often fatal. Reyee's syndrome can be prompted by use of aspirin. Report this disorder with ICD-9-CM code 331.81.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
Also not with 83918: 83919
Also not with 83921: 83919

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Opiate(s), drug and metabolites, each procedure

Explanation
Test methods include thin-layer chromatography, enzyme immunoassay, gas chromatography, and high performance liquid chromatography. This test measures the amount of a given opiate present and may be ordered to measure toxicity or possible drug abuse of opiates, such as morphine and meperidine (Demerol). Report 83925 for each test procedure for drugs and metabolites.

Coding Tips
See code 80101 for each qualitative drug screen of multiple classes of drugs; code 80101 for each single drug class. For drug confirmation, see code 80102. For the preparation of tissue for a drug analysis, see code 80103. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
assay. Test of purity.

drug abuse. Individual, for whom no other diagnosis is possible, has come under medical care because of the maladaptive effect of a drug on which he is not dependent (see Drug dependence) and that he has taken on his own initiative to the detriment of his health or social functioning.

drug dependence. Psychic and physical dependence, resulting from taking a drug, characterized by behavioral and other responses that always include a compulsion to take a drug on a continuous or periodic basis to experience its psychic effects, and sometimes to avoid the discomfort of its absence.

qualitative. To determine the nature of the component of a substance.

quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
292.89 Other specified drug-induced mental disorder — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)

297.9 Unspecified paranoid state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

298.9 Unspecified psychosis — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)

304.00 Opioid type dependence, unspecified

304.01 Opioid type dependence, continuous

304.02 Opioid type dependence, episodic

304.03 Opioid type dependence, in remission

304.90 Unspecified drug dependence, remission

305.50 Nondependent opioid abuse, unspecified

305.51 Nondependent opioid abuse, continuous

305.52 Nondependent opioid abuse, episodic

305.53 Nondependent opioid abuse, in remission

305.90 Other, mixed, or unspecified nondependent drug abuse, unspecified

305.91 Other, mixed, or unspecified nondependent drug abuse, continuous

305.92 Other, mixed, or unspecified nondependent drug abuse, episodic

305.93 Other, mixed, or unspecified nondependent drug abuse, in remission

338.4 Chronic pain syndrome — (Use additional code to identify pain associated with psychological factors: 307.89)

518.81 Acute respiratory failure

965.09 Poisoning by opiates and related narcotics, other — (Use additional code to specify the effects of poisoning)

V58.69 Long-term (current) use of other medications

V70.4 Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

V72.60 Laboratory examination, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
ICD-9-CM Diagnostic Codes

276.0 Hyperosmolality and/or hyponatremia — (Use additional code to identify any associated intellectual disabilities)

276.1 Hyposmolality and/or hyponatremia — (Use additional code to identify any associated intellectual disabilities)

276.50 Volume depletion, unspecified — (Use additional code to identify associated intellectual disabilities)

276.51 Dehydration — (Use additional code to identify associated intellectual disabilities)

276.52 Hypovolemia — (Use additional code to identify associated intellectual disabilities)

276.53 Dehydration — (Use additional code to identify associated intellectual disabilities)

277.0 Acute alcoholic intoxication, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

277.01 Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

277.02 Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

277.39 Other amylodosis — (Use additional code to identify any associated intellectual disabilities)

277.30 Amyloidosis, unspecified — (Use additional code to identify any associated intellectual disabilities)

303.00 Acute alcoholic intoxication, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.01 Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.02 Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.90 Other and unspecified alcohol dependence, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.91 Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

303.92 Other and unspecified alcohol dependence, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)

980.1 Toxic effect of methyl alcohol — (Use additional code to specify the nature of the toxic effect)

982.8 Toxic effect of other nonpetroleum-based solvents — (Use additional code to specify the nature of the toxic effect)

987.8 Toxic effect of other specified gases, fumes, or vapors — (Use additional code to specify the nature of the toxic effect)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
155.0 Malignant neoplasm of liver, primary
155.1 Malignant neoplasm of intrahepatic bile ducts
155.2 Malignant neoplasm of liver, not specified as primary or secondary

Explanation
Proteins that are involved in tumor growth (oncoproteins) are coded for by a gene with a DNA sequence that causes cancer (oncogene). The human epidermal growth factor receptor 2 gene, a proto-oncogene, encodes for the HER-2/neu protein, a cell surface growth factor receptor that is expressed on the cytoplasmic membrane of some epithelial cells and regulates normal cell growth and division. Gene amplification causes overexpression of the HER-2/neu oncprotein, which correlates to higher cell growth rates and oncogenic transformation. Immunohistochemical methods are often used to measure the overexpression of HER-2/neu protein. Code 83950 reports the evaluation of the staining pattern for intensity and the degree to which the cytoplasmic membrane is encircled with stain, indicating overexpression of the protein. Des-gamma-carboxy-prothrombin (DCP) is an oncoprotein whose levels are used to detect liver cancer at an early stage and to monitor its progression. Increased levels may also indicate the development of portal vein invasion (PVI), making it a valuable tool in the prediction of disease progression and worsening prognosis. When used in combination with AFP-L3%, DCP can help identify patients at risk of developing hepatocellular cancer. The test is by enzyme immunoassay; the sample is serum. Report DCP testing with 83951.

Coding Tips
For tests performed on surgical specimens, see codes 88342 and 88365. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers reimburse on codes listed above. Note: These CCI edits are used for Medicare. Other payers may also not with 83951: 82491, 83520
Also not with 83950: 88271, 88274-88275

Terms To Know
assay. Test of purity.
hepatic portal vein. Blood vessel that delivers unoxygenated blood from the gastrointestinal tract, spleen, pancreas, and gallbladder to the liver.
prognosis. Forecast of the probable outcome of a condition or disease, and the prospects of recovery and disease residual, dependent on the nature of the disease and the patient's response to treatment.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
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<tr>
<td>155.0</td>
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<tr>
<td>155.1</td>
<td>Malignant neoplasm of intrahepatic bile ducts</td>
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<tr>
<td>155.2</td>
<td>Malignant neoplasm of liver, not specified as primary or secondary</td>
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<th>Code</th>
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<td>174.0</td>
<td>Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.1</td>
<td>Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.2</td>
<td>Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.4</td>
<td>Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.8</td>
<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.9</td>
<td>Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>175.9</td>
<td>Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>269.0</td>
<td>Deficiency of vitamin K</td>
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<tr>
<td>776.0</td>
<td>Hemorrhagic disease of newborn — (Use additional code(s) to further specify condition)</td>
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</table>

V10.3 Personal history of malignant neoplasm of breast

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
ICD-9-CM Diagnostic Codes

227.1 Benign neoplasm of parathyroid gland — (Use additional code to identify any functional activity)
252.01 Primary hyperparathyroidism
252.02 Secondary hyperparathyroidism, non-renal
252.08 Other hyperparathyroidism
252.1 Hypoparathyroidism
268.2 Osteomalacia, unspecified
275.40 Unspecified disorder of calcium metabolism — (Use additional code to identify any associated intellectual disabilities)
275.41 Hypocalcemia — (Use additional code to identify any associated intellectual disabilities)
275.42 Hypercalcemia — (Use additional code to identify any associated intellectual disabilities)

Coding and Payment Guide for Laboratory Services

83970
83970 Parathormone (parathyroid hormone)

Explanation
This test may also be ordered as a PTH or parathyrin. The specimen is post-fasting serum requiring special handling. Methods may include immunochemiluminoimetric assay (ICMA), radioimmunoaassay (RIA), and immunoradiometric assay (IRMA). Testing determines the PTH levels and may be used to differentiate between primary or secondary causes of parathyroid disorders.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hyperparathyroidism. Abnormally high secretion of parathyroid hormones inducing hypercalcemia causing bone deterioration, reduced renal function, and kidney stones. Hyperparathyroidism may be primary, secondary, or tertiary and is coded respectively. The primary form is caused by a disorder of the glands that causes them to become overactive, 80 percent of the time due to a benign tumor or adenoma of the glands. The secondary form is caused by an increase in parathyroid hormone in response to another disease process, such as osteomalacia, vitamin D deficiency or malabsorption, or renal disease. The tertiary form is an adenomatous parathyroid gland developed from the secondary form due to renal impairment. These are reported with ICD-9-CM codes 252.01-252.08, with the secondary form due to renal causes reported in the genitourinary chapter, ICD-9-CM code 588.81.

Procedural Codes

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83992

**Phencyclidine (PCP)**

**Explanation**
This test is performed to evaluate the presence of phencyclidine (also known as PCP, or angel dust), an illegal street drug. Methodology may include immunoassay, thin-layer chromatography (TLC), gas chromatography (GC), and gas chromatography/mass spectrometry (GC/MS), which quantifies the amount of drug.

**Coding Tips**
See code 80101 for each qualitative drug screen of multiple classes of drugs; code 80101 for each single drug class. For drug confirmation, see code 80102. For the preparation of tissue for a drug analysis see code 80103. Venipuncture is separately reportable for collection of venous blood. By venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see code 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
- **Drug abuse.** Individual, for whom no other diagnosis is possible, has come under medical care because of the maladaptive effect of a drug on which he is not dependent (see Drug dependence) and that he has taken on his own initiative to the detriment of his health or social functioning.
- **Drug dependence.** Psychic and physical dependence, resulting from taking a drug, characterized by behavioral and other responses that almost always include a compulsion to take a drug on a continuous or periodic basis to experience its psychic effects, and sometimes to avoid the discomfort of its absence.
- **Qualitative.** To determine the nature of the component of substance.
- **Quantitative.** To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**
- **292.89** Other specified drug-induced mental disorder — (Use additional code for any associated drug dependence: 304.0-304.9. Use additional E code to identify drug)
- **297.9** Unspecified paranoid state — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
- **298.9** Unspecified psychosis — (Use additional code to identify any associated physical disease, injury, or condition affecting the brain with psychoses classifiable to 295-298)
- **304.60** Other specified drug dependence, unspecified
- **304.61** Other specified drug dependence, continuous
- **304.62** Other specified drug dependence, episodic
- **304.63** Other specified drug dependence, in remission
- **305.90** Other, mixed, or unspecified nondependent drug abuse, unspecified
- **305.91** Other, mixed, or unspecified nondependent drug abuse, continuous
- **305.92** Other, mixed, or unspecified nondependent drug abuse, episodic
- **305.93** Other, mixed, or unspecified nondependent drug abuse, in remission
- **968.3** Poisoning by intravenous anesthetics — (Use additional code to specify the effects of poisoning)
- **V70.4** Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)
- **V72.62** Laboratory examination ordered as part of a routine general medical examination

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
Phosphatase, acid; total

forensic examination

prostatic

Explanation
Also known as phosphoric monoester phosphohydrolase and ACP, total acid phosphatase is reported with code 84060. This test is often performed on individuals with diagnoses such as skeletal metastasis, myelocytic leukemia, and is useful in staging prostatic cancer rather than initial diagnosis of prostate cancer. The specimen is post-fasting serum. Methods may include radioimmunoassay (RIA), enzyme immunoassay (EIA), and spectrophotometry. Code 84061 is used to report acid phosphatase, a constituent of semen, as part of evidence collection following a sex crime. The specimen is vaginal fluid. Some specimens may be placed in transport tubes; others may be submitted on slides as smears. This test does not detect the presence of spermatozoa. Levels of phosphatase may be elevated due to vaginal infection, which may confuse test results. Code 84066 is used to report a prostatic acid phosphatase, which may also be known as PAP and prostatic phosphatase. The specimen is post-fasting serum. Methods may include radioimmunoassay (RIA), enzyme monophosphate, alpha naphthylphosphate, and titrate inhibition. This test may be used to stage prostate cancer, to diagnose metastatic prostate adenocarcinoma and to monitor treatment of those diagnosed with prostatic carcinoma.

Coding Tips
Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
assay. Test of purity.
prostate. Male gland surrounding the bladder neck and urethra that secretes a substance into the seminal fluid.
smear. Specimen for study that is spread out across a glass slide.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
185 Malignant neoplasm of prostate
198.5 Secondary malignant neoplasm of bone and bone marrow
198.82 Secondary malignant neoplasm of genital organs
222.2 Benign neoplasm of prostate
233.4 Carcinoma in situ of prostate
236.5 Neoplasm of uncertain behavior of prostate
239.5 Neoplasm of unspecified nature of other genitourinary organs
257.1 Postablative testicular hypofunction
257.2 Other testicular hypofunction
790.93 Elevated prostate specific antigen (PSA)
V10.46 Personal history of malignant neoplasm of prostate

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**Explanation**

The test indicated by code 84075 may also be requested as ALP. ALP is an enzyme. It is an indicator of liver cell damage. Amniotic fluid ALP may be screened for cystic fibrosis in mothers who have had a child affected with the disease. Methods include a number of kinetic spectrophotometry and fluorescent techniques, as well as 4-nitrylphenolphosphate (4-NPP) and diethanolamine (DEA). A heat stable alkaline phosphatase, reported as 84078, may be performed to identify general liver and bone diseases. Methodology involves heat inhibition at 56 degrees Celsius. Code 84080 is used to report the test that may also be known as ALP isoenzymes. This test may be ordered for patients with increased serum total alkaline phosphatase, or to compare total alkaline phosphatase to placental, liver, bone, and Regan isoenzymes. Methods may include electrophoresis or enzymatic.

**Coding Tips**

Code 84075 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**venipuncture.** Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

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<td>006.3</td>
<td>Amebic liver abscess</td>
</tr>
<tr>
<td>006.4</td>
<td>Amebic lung abscess</td>
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<tr>
<td>006.5</td>
<td>Amebic brain abscess</td>
</tr>
<tr>
<td>042</td>
<td>Human immunodeficiency virus (HIV) — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
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<tr>
<td>070.0</td>
<td>Viral hepatitis A with hepatic coma</td>
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<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
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**Procedures and Services**

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<th>Code</th>
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<td>84075</td>
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<td>84078</td>
<td>Isoenzymes</td>
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<tr>
<td>84080</td>
<td>Heat stable alkaline phosphatase, total not included</td>
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**IOM References**

100-2,11,30.2.2; 100-3,160.17; 100-4,16,40.6.1; 100-4,16,70.8

**CCI Version 20.0**

Also not with 84080: 80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Phosphatidylglycerol

Explanation
These tests together are frequently ordered as LS/PG. Testing is performed in conjunction with an L/S (lecithin/sphingomyelin) ratio for assessment of fetal maturity based on pulmonary surfactant. This test may be performed to determine fetal lung maturity and to establish the possibility of the development of respiratory distress syndrome in the fetus. The specimen is by amniocentesis, a separately reportable procedure. Methods may include thin-layer chromatography (TLC) and immunologic and enzymatic assays.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know

amniocentesis. Surgical puncture through the abdominal wall, with a specialized needle and under ultrasonic guidance, into the interior of the pregnant uterus and directly into the amniotic sac to collect fluid for diagnostic analysis or therapeutic reduction of fluid levels.
eclampsia. Tetany and toxemia producing seizure activity or coma in a pregnant patient who most often has presented with prior preeclampsia (i.e., hypertension, albuminuria, and edema). Eclampsia most commonly occurs during the third trimester or within the first 48 hours following birth.

ICD-9-CM Diagnostic Codes

642.41 Mild or unspecified pre-eclampsia, with delivery
642.42 Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication
642.43 Mild or unspecified pre-eclampsia, antepartum
642.44 Mild or unspecified pre-eclampsia, postpartum condition or complication
642.51 Severe pre-eclampsia, with delivery
642.52 Severe pre-eclampsia, with delivery, with current postpartum complication
642.53 Severe pre-eclampsia, antepartum
642.54 Severe pre-eclampsia, postpartum condition or complication
642.61 Eclampsia, with delivery
642.62 Eclampsia, with delivery, with current postpartum complication
642.63 Eclampsia, antepartum
642.64 Eclampsia, postpartum condition or complication
642.71 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery
642.72 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication
642.73 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, antepartum
642.74 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, postpartum condition or complication
648.01 Maternal diabetes mellitus with delivery — (Use additional code(s) to identify the condition)
648.02 Maternal diabetes mellitus with delivery, with current postpartum complication
648.03 Maternal diabetes mellitus, antepartum — (Use additional code(s) to identify the condition)
648.04 Maternal diabetes mellitus, complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code(s) to identify the condition)
648.81 Abnormal maternal glucose tolerance, with delivery — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)
648.82 Abnormal maternal glucose tolerance, with delivery, with current postpartum complication — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)
648.83 Abnormal maternal glucose tolerance, antepartum — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)
648.84 Abnormal maternal glucose tolerance complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code(s) to identify the condition. Use additional code, if applicable, for associated long-term (current) insulin use: V58.67)
656.11 Rhesus isoimmunization affecting management of mother, delivered
656.13 Rhesus isoimmunization affecting management of mother, antepartum condition
656.21 Isoimmunization from other and unspecified blood-group incompatibility, affecting management of mother, delivered
656.23 Isoimmunization from other and unspecified blood-group incompatibility, affecting management of mother, antepartum

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**84106-84110**

**84106**  Porphobilinogen, urine; qualitative
**84110**  quantitative

**Explanation**
The qualitative test reported with code 84106 may also be known as Watson-Schwartz, PCC, and Hoesch tests. The specimen is random urine which requires special handling. Methods are the Watson-Schwartz and Hoesch tests, and Ehrlich’s reagent. The Hoesch test does not respond to urobilirubin. The test may be used to screen for acute intermittent porphyria and for acute attacks of abdominal and extremity pain. The quantitative test, also be known as Porphobilinogen (PBG), urine, is reported with 84110. The specimen is a 24-hour or a random urine sample, requiring special handling. Urine colored amber-red or burgundy, which darkens in light, indicates the presence of abnormally high levels. This test may be used to detect levels of porphobilinogen associated in the diagnosis of genetic or drug-induced abnormal porphyrin metabolism. Methods may involve gas chromatography, colorimetry, and spectrophotometry. This test measures (quantifies) porphobilinogen present in the specimen.

**Coding Tips**
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
- **genetic test.** Test that is able to detect a gene mutation, either inherited or caused by the environment.
- **qualitative.** To determine the nature of the component of substance.
- **quantitative.** To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**
- 155.0  Malignant neoplasm of liver, primary
- 155.2  Malignant neoplasm of liver, not specified as primary or secondary
- 197.7  Secondary malignant neoplasm of liver
- 230.8  Carcinoma in situ of liver and biliary system
- 277.1  Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
- 573.3  Unspecified hepatitis — (Use additional E code to identify cause)
- 782.0  Disturbance of skin sensation
- 785.0  Unspecified tachycardia
- 787.01  Nausea with vomiting
- 787.02  Nausea alone
- 787.03  Vomiting alone
- 787.04  Bilious emesis
- 789.00  Abdominal pain, unspecified site
- 789.01  Abdominal pain, right upper quadrant
- 789.02  Abdominal pain, left upper quadrant
- 789.03  Abdominal pain, right lower quadrant
- 789.04  Abdominal pain, left lower quadrant
- 789.05  Abdominal pain, periumbilic
- 789.06  Abdominal pain, epigastric
- 789.07  Abdominal pain, generalized
- 789.09  Abdominal pain, other specified site
- 984.0  Toxic effect of inorganic lead compounds — (Use additional code to specify the nature of the toxic effect)
- 984.1  Toxic effect of organic lead compounds — (Use additional code to specify the nature of the toxic effect)
- 984.8  Toxic effect of other lead compounds — (Use additional code to specify the nature of the toxic effect)
- 984.9  Toxic effect of unspecified lead compound — (Use additional code to specify the nature of the toxic effect)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

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**84112**

**Explanation**
This is a noninvasive test to evaluate possible rupture of membranes (ROM) in a pregnant patient. During pregnancy, large quantities of placental alpha microglobulin-1 (PAMG-1) are secreted into the amniotic fluid. If the fetal membranes are intact, a low background level of PAMG-1 is measured in cervicovaginal secretions. High levels may be indicative of ROM. A swab is inserted two to three inches into the vagina and is withdrawn after one minute. The swab tip is placed into a vial and rinsed with solvent. A test strip is then placed into the vial with the solvent. Depending on the size of the amniotic fluid leak, results may be visible within five to 10 minutes.

**Coding Tips**
This code has been revised for 2014 in the official CPT description. If a specimen is transported to an outside laboratory, report code 99000 for handling and conveyance.

**Terms To Know**
- **placenta.** Temporary organ within the uterus during pregnancy, joining the mother and fetus. It is attached to the fetus via the umbilical cord and provides oxygen and nutrients and helps to eliminate carbon dioxide and waste through the selective exchange of soluble substances carried via the blood. The placenta is expelled from the uterus after the baby is delivered, and is then termed the afterbirth.
- **premature delivery.** Infant delivered with time of gestation less than 37 weeks.

**ICD-9-CM Diagnostic Codes**

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**CCI Version 20.0**
82105-82107
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**84119-84127**

84119  Porphyrins, urine; qualitative
84120  quantitation and fractionation
84126  Porphyrins, feces; quantitative
84127  qualitative

**Explanation**

This qualitative test, reported with code 84119, may be used to detect the presence (qualitative) of porphyria cutanea tarda (PCT). The patient typically collects a 24-hour urine. Methods may include high performance liquid chromatography. Urine porphyrins are useful for evaluating photosensitivity due to abnormal metabolism of the protein used in the synthesis of the iron (heme) in hemoglobin. Testing performed for the quantitative evaluation (measurement) of porphyrinas is reported with 84120, which includes quantitation and fractionation. Specimen is urine collected by the patient over a 24-hour period. Methods may include chromatography, fluorometry, and high performance liquid chromatography (HPLC). Report 84126 (quantitative) and 84127 (qualitative) when the specimen is feces which may be a random or timed collection. Results may be used to measure the levels of coproporphyrin (a nitrogen-containing substance excreted in the feces from the breakdown of bilirubin from hemoglobin decomposition) and protoporphyrin (a form of porphyrin that combines with iron and protein to form organic molecules such as hemoglobin). Method is high performance liquid chromatography and fluorometry.

**Coding Tips**

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. For porphyrin precursors, see codes 82135, 84106, and 84110. Code 84110. See codes 84202 and 84203 for protoporphyrin, RBC.

**Terms To Know**

- **hemoglobin.** Oxygen-carrying component of the red blood cell.
- **qualitative.** To determine the nature of the component of substance.
- **quantitative.** To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**

- **277.1** Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
- **961.2** Poisoning by heavy metal anti-infectives — (Use additional code to specify the effects of poisoning)
- **984.0** Toxic effect of inorganic lead compounds — (Use additional code to specify the nature of the toxic effect)
- **984.1** Toxic effect of organic lead compounds — (Use additional code to specify the nature of the toxic effect)
- **984.8** Toxic effect of other lead compounds — (Use additional code to specify the nature of the toxic effect)

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**84132-84133**

**84132** Potassium; serum, plasma or whole blood

**84133** urine

**Explanation**

The test 84132 may be requested as K or K+. Potassium is the major electrolyte found in intracellular fluids. Potassium influences skeletal and cardiac muscle activity. Very small fluctuations outside the normal range may cause significant health risk, including muscle weakness and cardiac arrhythmias. Blood specimen is serum, plasma, or whole blood. Methods include atomic absorption spectrometry (AAS), ion-selective electrode (ISE), and flame emission spectroscopy (FES). For evaluation of potassium in the urine, report 84133. This test may be ordered as urine K+. The specimen is collected by the patient over a 24-hour period or is random urine sample. Methods may include flame emission photometry and ion-selective electrode (ISE). The test may be ordered to determine elevated levels for the differential diagnoses of chronic renal failure, renal tubular acidosis, and for diuretic therapy.

**Coding Tips**

Code 84132 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **acidosis.** Reduction of alkaline in the blood and tissues.
- **arrhythmia.** Inregular heartbeat.

**ICD-9-CM Diagnostic Codes**

- **003.21** Salmonella meningitis
- **003.22** Salmonella pneumonia
- **003.23** Salmonella arthritus
- **255.10** Hyperaldosteronism, unspecified
- **255.14** Other secondary aldosteronism
- **255.41** Glucocorticoid deficiency
- **276.7** Hyperpotassemia — (Use additional code to identify any associated intellectual disabilities)
- **276.8** Hypopotassemia — (Use additional code to identify any associated intellectual disabilities)
- **401.0** Essential hypertension, malignant
- **401.1** Essential hypertension, benign

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

- 100-2, 11, 30.2.2; 100-4, 16, 70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
84143
84143  17-hydroxyprogrenolone

Explanation
Serum or urine from a female patient may be examined using radioimmunoassay in this test for detecting and measuring the levels of 17-hydroxyprogrenolone, a hormonal metabolite.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. When venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Cushing's syndrome. Abdominal striae, acne, hypertension, decreased carbohydrate tolerance, moon face, obesity, protein catabolism, and psychiatric disturbances resulting from increased adrenocortical secretion of cortisol caused by ACTH-dependent adrenocortical hyperplasia or tumor, or by effects of steroids.

hirsutism. Excessive hair growth exhibited in males in androgen-stimulated locations, such as the face, chest, and areolae, and in females hair appears in locations where hair is usually absent.

pituitary gland. Hormone-controlling epithelial body located within the sella turcica at the base of the brain that secretes most of the body's hormones and regulates neurohormones received from the hypothalamus.

ICD-9-CM Diagnostic Codes
191.0  Malignant neoplasm of cerebrum, except lobes and ventricles
191.1  Malignant neoplasm of frontal lobe of brain
191.2  Malignant neoplasm of temporal lobe of brain
191.3  Malignant neoplasm of parietal lobe of brain
191.4  Malignant neoplasm of occipital lobe of brain
191.5  Malignant neoplasm of ventricles of brain
191.6  Malignant neoplasm of cerebellum NOS
191.7  Malignant neoplasm of brain stem
191.8  Malignant neoplasm of other parts of brain
191.9  Malignant neoplasm of brain, unspecified site
243  Congenital hypothyroidism — (Use additional code to identify associated intellectual disabilities)
246.1  Dyshormonogenetic goiter
253.2  Panhypopituitarism
253.3  Pituitary dwarfism
253.4  Other anterior pituitary disorders
253.5  Diabetes insipidus
253.7  Iatrogenic pituitary disorders — (Use additional E code to identify cause)
255.0  Cushing's syndrome — (Use additional E code to identify cause, if drug-induced)
255.41  Glucocorticoid deficiency
255.42  Mineralocorticoid deficiency
256.0  Hyperestrogenism
256.1  Other ovarian hyperfunction
256.2  Postablative ovarian failure — (Use additional code for states associated with artificial menopause: 627.4)
256.39  Other ovarian failure — (Use additional code for states associated with natural menopause: 627.2)
256.4  Polycystic ovaries
256.8  Other ovarian dysfunction
256.9  Unspecified ovarian dysfunction
257.2  Other testicular hypofunction
257.8  Other testicular dysfunction
259.1  Precocious sexual development and puberty, not elsewhere classified
265.0  Beriberi
265.1  Other and unspecified manifestations of thiamine deficiency
265.2  Pellagra
278.01  Morbid obesity — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)
571.2  Alcoholic cirrhosis of liver
571.5  Cirrhosis of liver without mention of alcohol — (Code first, if applicable, viral hepatitis (acute) (chronic): 070.0-070.9)
704.1  Hirsutism
758.7  Klinefelter's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
The specimen is serum. Methods may include radioimmunoassay (RIA) and monoclonal two-site immunoradiometric assay. These tests may be performed to determine the presence of cancer of the prostate, benign prostatic hypertrophy (BPH), prostatitis, post prostatectomy to detect residual cancer, and to monitor therapy. There are several forms of PSA present in serum. PSA may be complexed with the protease inhibitor alpha-1 antichymotrypsin (PSA- ACT). Complexed PSA is the most measurable form. PSA is also found in a free form. Free PSA is not complexed to a protease inhibitor. Higher levels of free PSA are more often associated with benign conditions of the prostate than with prostate cancer. Total PSA measures both complexed and free levels to provide a total amount present in the serum. A percentage of each form is sometimes calculated to distinguish benign from malignant conditions. Code 84152 reports complexed PSA; 84153 is for total serum PSA; 84154 is for free (not complexed) PSA.

Coding Tips
A national coverage determination (NCD) applies to code 84153. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.31. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
benign. Mild or nonmalignant in nature.
malignant. Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
prostatitis. Inflammation of the prostate that may be acute or chronic.

ICD-9-CM Diagnostic Codes
185 Malignant neoplasm of prostate
188.5 Malignant neoplasm of bladder neck
188.8 Malignant neoplasm of other specified sites of bladder
198.82 Secondary malignant neoplasm of genital organs
222.2 Benign neoplasm of prostate
233.4 Carcinoma in situ of prostate
236.5 Neoplasm of uncertain behavior of prostate
599.70 Hematuria, unspecified

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Instill medication, or inject another substance such as radiopaque dye with a sharp-ended cannula or catheter to draw blood, start an intravenous infusion, or venipuncture.

Venipuncture—Piercing a vein through the skin by a needle and syringe or by a needle and syringe with a butterfly catheter.

A specimen is taken for analysis, pathologic examination, and diagnosis.

- **Specimen**
  - Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
  - CSF: Cerebrospinal fluid.
  - Urine
  - Other source (e.g., synovial fluid, cerebrospinal fluid)

**Protein, total**

**Terms to Know**

- **Aspiration**: Drawing fluid out by suction.
- **CSF**: Cerebrospinal fluid.
- **Specimen**: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- **Venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, or inject another substance such as radiopaque dye.

**Coding Tips**

Code 84155 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. For other body fluids (CSF, bronchial fluid, exudates) may also require separately reportable procedures. The method is biuret for blood (serum) and aminoetric fluid. The method is turbidimetry or nephelometry for urine and CSF. For other body fluids, the method is turbidimetry or biuret. Code 84160 reports protein tested for by refractometry with any source of specimen. Collection/aspiration of other body fluids (CSF, amniotic fluid, exudates) may require separately reportable procedures. The method determines the velocity of light through a refractive material (plasma).

**ICD-9-CM Diagnostic Codes**

- 203.00: Multiple myeloma, without mention of having achieved remission
- 203.01: Multiple myeloma in remission
- 203.02: Multiple myeloma, in relapse
- 261: Nutritional marasmus
- 262: Other severe protein-calorie malnutrition
- 263.0: Malnutrition of moderate degree
- 263.1: Malnutrition of mild degree
- 263.8: Other protein-calorie malnutrition
- 579.8: Other specified intestinal malabsorption
- 580.0: Acute glomerulonephritis with lesion of proliferative glomerulonephritis
- 580.4: Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis
- 580.81: Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)
- 580.89: Other acute glomerulonephritis with other specified pathological lesion in kidney
- 580.9: Acute glomerulonephritis with unspecified pathological lesion in kidney
- 581.1: Nephrotic syndrome with lesion of membranous glomerulonephritis
- 581.9: Nephrotic syndrome with unspecified pathological lesion in kidney
- 582.0: Chronic glomerulonephritis with lesion of proliferative glomerulonephritis
- 582.1: Chronic glomerulonephritis with lesion of membranous glomerulonephritis
- 582.4: Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis
- 582.81: Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 277.30-277.39, 710.0)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

- 100-2, 11, 30.2.2; 100-4, 16, 40.6.1; 100-4, 16, 70.8

**CCI Version 20.0**

- Also not with 84155: 84160
- Also not with 84160: 84156-84157

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**Protein; electrophoretic fractionation and quantitation, serum**

84165-84182

84165  Protein; electrophoretic fractionation and quantitation, serum
84166  electrophoretic fractionation and quantitation, other fluids with concentration (eg, urine, CSF)
84181  Western Blot, with interpretation and report, blood or other body fluid
84182  Western Blot, with interpretation and report, blood or other body fluid, immunological probe for band identification, each

**Explanation**

Specimen collection is by venipuncture for adults; heel stick for children. Methods may be cellulose acetate and agarose electrophoresis. The test is performed for the quantitation of albumin, alpha1, alpha2 beta, and gammaglobulins. CSF electrophoresis may be useful in the diagnosis of tumors in the central nervous system or neurological illnesses. Serum protein electrophoretic fractionation and quantitation is performed primarily to evaluate for multiple myeloma or to test for hypogammaglobulinemia. The specimen is serum. Methods may be cellulose acetate and agarose electrophoresis. The value of this testing lies in the proportion of these proteins and the patterns they create on the graph, giving diagnostic clues for some diseases. Report 84165 when serum is tested and 84166 when another fluid such as urine or cerebrospinal fluid is tested. Western blot is an immunoassay technique that detects and confirms certain antibody proteins in blood or other body fluid. Combining an electrophoresis process with a process that blots or transfers the separated proteins onto a membrane, the western blot is frequently utilized as a follow-up confirmatory test to assist in diagnosing a specific disease. Examples of confirmatory testing include that for HIV and Lyme disease. Report 84181 for Western Blot with interpretation and report; report 84182 for each immunological probe that is utilized for band identification. These codes include interpretation and report.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. For cerebrospinal fluid specimen, a separately reportable lumbar puncture is performed.

**Terms To Know**

CSF. Cerebrospinal fluid.

LP. Lumbar puncture.

Lyme disease. Acute inflammatory disease caused by a tick bite.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**IOM References**

100-3,190.9

**CCI Version 20.0**

80500-80502

Also not with 84182: 84181

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**multiple myeloma.** Rare form of cancer in which the bone marrow’s plasma cells are produced at an increased rate, forming multiple bone marrow tumors and bone-destroying lesions that progress to other parts of the body in advanced stages. Symptoms involve bone pain, weakness, spontaneous fractures, anemia, fatigue, and hypercalcemia causing renal cast formation, nephropathy, and kidney failure. This condition is diagnosed by the presence of Bence-Jones protein in the urine. Report this condition with a code from ICD-9-CM subcategory 203.0. Synonym(s): Kahler (-Bozzolo) disease, plasma cell myeloma.

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84202-84203

**84202**  Protoporphyrin, RBC; quantitative

**84203**  screen

**Explanation**
This test is performed to diagnose various anemias and lead toxicity. Code 84203 is a qualitative test used as a screen to determine if protoporphyrin is present in the specimen. Code 84202 measures (quantifies) the level of protoporphyrin present. The specimen is whole blood. Methods may include hematofluorometry methods and high performance liquid chromatography.

**Coding Tips**
Venipuncture is separately reportable for collection of venous blood. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **anemia of chronic disease.** Anemia occurring as a result of chronic illnesses, such as end stage renal disease, chronic infections, inflammatory disorders, malignancies, or other chronic diseases. Report this disease with a code from ICD-9-CM subcategory 285.2.
- **hemoglobin.** Oxygen-carrying component of the red blood cell.
- **hemolytic-uremic syndrome.** Enlargement of the liver and spleen and many erythroblasts in circulation. Report this disorder with ICD-9-CM code 283.11 or ICD-10-CM code D59.3.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>275.01</td>
<td>Hereditary hemochromatosis — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>275.02</td>
<td>Hemochromatosis due to repeated red blood cell transfusions — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>275.03</td>
<td>Other hemochromatosis — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>275.09</td>
<td>Other disorders of iron metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>277.1</td>
<td>Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>280.0</td>
<td>Iron deficiency anemia secondary to blood loss (chronic)</td>
</tr>
<tr>
<td>280.1</td>
<td>Iron deficiency anemia secondary to inadequate dietary iron intake</td>
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<tr>
<td>280.8</td>
<td>Other specified iron deficiency anemias</td>
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### Work Value

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</tr>
</tbody>
</table>

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### ICD-9-CM Diagnostic Codes

**157.4** Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)

**211.7** Benign neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)

**249.80** Secondary diabetes mellitus with other specified manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 707.10-707.19, 707.8, 707.9, 731.8) (Use additional code to identify any associated insulin use: V58.67)

### Terms To Know

**Diabetes mellitus.** Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

**Glucagon.** Preparation of the hormone secreted by the islets of Langerhans cells of the pancreas in response to hypoglycemia that triggers the catabolism of glycogen in the liver to glucose for use by the body. Supply is reported with HCPCS Level II code J1610. May be sold under the brand name Glucagen.

**Hypoglycemia.** Abnormally low blood glucose level. Excessive insulin produced by the pancreas, sometimes associated with tumors, or an overdose of insulin to treat diabetes may be a cause. Hypoglycemia in a diabetic patient is reported with ICD-9-CM subcategory code 249.8 or 250.8. Hypoglycemia that is not occurring in a patient with diabetes mellitus is reported with 251.1.

**H. Coma.** Loss of consciousness due to low blood sugar in a nondiabetic patient, commonly a blood sugar of less than 40 mg/dl as an iatrogenic reaction to treatment, reported with a code from ICD-9-CM subcategory 251.0. Synonym(s): Iatrogenic hypoglycemia, non-diabetic insulin coma, h. syndrome

**Hypoglycemia described as unspecified.** Report this disorder with ICD-9-CM code 251.2. Synonym(s): idiopathic familial hypoglycemia.

### Coding and Payment Guide for Laboratory Services

**84206** Proinsulin

**Explanation**

This test may be performed for the differential diagnoses of insulinoma, renal failure, factitious hypoglycemia, and diabetes mellitus. The specimen is post-fast serum, requiring special handling. Method is radioimmunoassay.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**Diabetes mellitus.** Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

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**ICD-9-CM Diagnostic Codes**

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**Coding and Payment Guide for Laboratory Services**

**84206 Proinsulin**

**Explanation**

This test may be performed for the differential diagnoses of insulinoma, renal failure, factitious hypoglycemia, and diabetes mellitus. The specimen is post-fast serum, requiring special handling. Method is radioimmunoassay.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**Diabetes mellitus.** Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

**Glucagon.** Preparation of the hormone secreted by the islets of Langerhans cells of the pancreas in response to hypoglycemia that triggers the catabolism of glycogen in the liver to glucose for use by the body. Supply is reported with HCPCS Level II code J1610. May be sold under the brand name Glucagen.

**Hypoglycemia.** Abnormally low blood glucose level. Excessive insulin produced by the pancreas, sometimes associated with tumors, or an overdose of insulin to treat diabetes may be a cause. Hypoglycemia in a diabetic patient is reported with ICD-9-CM subcategory code 249.8 or 250.8. Hypoglycemia that is not occurring in a patient with diabetes mellitus is reported with 251.1.

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**ICD-9-CM Diagnostic Codes**

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84210-84220

84210 Pyruvate
84220 Pyruvate kinase

Explanation
Reported with 84210, this test is also known as a pyruvic acid test. The specimen is blood. Methods are usually enzymatic and colorimetry. This test measures the level of pyruvate in whole blood. The abnormal breakdown of red blood cells and subsequent release of hemoglobin characterize a congenital deficiency of pyruvate. To identify pyruvate kinase deficiency and hemolytic anemia in newborns, report 84220. The specimen is washed red blood cells. Method is spectrophotometric kinetic assay.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a phlebotomist, or other health care provider, see codes 36400-36406. Most third-party payers younger than 3 years of age performed by a physician or other qualified health care provider, see code 36410. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
270.3 Disturbances of branched-chain amino-acid metabolism — (Use additional code to identify any associated intellectual disabilities)
270.4 Disturbances of sulphur-bearing amino-acid metabolism — (Use additional code to identify any associated intellectual disabilities)
270.5 Disturbances of histidine metabolism — (Use additional code to identify any associated intellectual disabilities)
270.6 Disorders of urea cycle metabolism — (Use additional code to identify any associated intellectual disabilities)
271.0 Glycogenosis — (Use additional code to identify any associated intellectual disabilities)
271.1 Galactosemia — (Use additional code to identify any associated intellectual disabilities)
271.2 Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)
271.3 Intestinal disaccharidase deficiencies and disaccharide malabsorption — (Use additional code to identify any associated intellectual disabilities)
271.4 Renal glycosuria — (Use additional code to identify any associated intellectual disabilities)
272.0 Pure hypercholesterolemia — (Use additional code to identify any associated intellectual disabilities)
272.1 Pure hyperglyceridemia — (Use additional code to identify any associated intellectual disabilities)
272.2 Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)
272.3 Hyperchylomicronemia — (Use additional code to identify any associated intellectual disabilities)
272.6 Lipodystrophy — (Use additional code to identify any associated intellectual disabilities) (Use additional E code to identify cause, if iatrogenic)
272.7 Lipidoses — (Use additional code to identify any associated intellectual disabilities)
273.0 Polyclonal hypergammaglobulinemia — (Use additional code to identify any associated intellectual disabilities)
273.1 Monoclonal paraproteinemia — (Use additional code to identify any associated intellectual disabilities)
273.3 Macroglobulinemia — (Use additional code to identify any associated intellectual disabilities)
275.01 Hereditary hemochromatosis — (Use additional code to identify any associated intellectual disabilities)
275.02 Hemochromatosis due to repeated red blood cell transfusions — (Use additional code to identify any associated intellectual disabilities)
275.1 Disorders of copper metabolism — (Use additional code to identify any associated intellectual disabilities)
275.2 Disorders of magnesium metabolism — (Use additional code to identify any associated intellectual disabilities)
275.3 Disorders of phosphorus metabolism — (Use additional code to identify any associated intellectual disabilities)
275.41 Hypocalcemia — (Use additional code to identify any associated intellectual disabilities)
275.42 Hypercalcemia — (Use additional code to identify any associated intellectual disabilities)
277.00 Cystic fibrosis without mention of meconium ileus — (Use additional code to identify any associated intellectual disabilities)
277.01 Cystic fibrosis with meconium ileus — (Use additional code to identify any associated intellectual disabilities)
277.1 Disorders of porphyrin metabolism — (Use additional code to identify any associated intellectual disabilities)
277.31 Familial Mediterranean fever — (Use additional code to identify any associated intellectual disabilities)
282.2 Anemias due to disorders of glutathione metabolism

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
84228
84228  Quinine

Explanation
Quinine is used in the treatment of malaria, atrial fibrillation, and other disorders of muscular tissues. Urine is collected by a patient over a 24-hour period. Method is thin-layer chromatography.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
atrial fibrillation. Cardiac arrhythmia caused by small areas of muscle fibers becoming erratically and spontaneously activated through multiple circuits in uncoordinated phases of depolarization and repolarization. This causes the atria to quiver in a continuously erratic pattern instead of contracting in the regular rhythm. Report atrial fibrillation with ICD-9-CM code 427.31.
malaria. Mosquito-borne parasitic infective disease manifested by cyclical chills, fever, and sweating.
myopathy. Any disease process within muscle tissue.

ICD-9-CM Diagnostic Codes
084.0  Falci parum malaria (malignant tertian)
084.1  Vivax malaria (benign tertian)
084.2  Quartan malaria
084.3  Ovale malaria
084.4  Other malaria
084.5  Mixed malaria
084.6  Unspecified malaria
084.7  Induced malaria
084.8  Blackwater fever
084.9  Other pernicious complications of malaria — (Use additional code to identify complication: 573.2, 581.81)
277.30  Amyloidosis, unspecified — (Use additional code to identify any associated intellectual disabilities)
277.31  Familial Mediterranean fever — (Use additional code to identify any associated intellectual disabilities)
277.39  Other amyloidosis — (Use additional code to identify any associated intellectual disabilities)
359.0  Congenital hereditary muscular dystrophy
359.1  Hereditary progressive muscular dystrophy
359.21  Myotonic muscular dystrophy
359.22  Myotonia congenita
359.23  Myotonic chondrodystrophy
359.24  Drug-induced myotonia
359.29  Other specified myotonic disorder
359.3  Periodic paralysis
359.4  Toxic myopathy — (Use additional E code to identify toxic agent)
359.5  Myopathy in endocrine diseases classified elsewhere — (Code first underlying disease: 242.0-242.9, 244.0-244.9, 253.2, 255.0, 255.4)
359.6  Symptomatic inflammatory myopathy in diseases classified elsewhere — (Code first underlying disease: 135, 140.0-208.9, 277.30-277.39, 446.0, 710.0, 710.1, 710.2, 714.0)
359.81  Critical illness myopathy
359.89  Other myopathies
359.9  Unspecified myopathy
427.31  Atrial fibrillation

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
The estrogen receptor assay test, 84233, may be ordered to assist in identifying a breast cancer patient's ability to respond to chemotherapy and endocrine therapy. The specimen is surgical tissue. The surgical procedure is separately billable. Methods may include biochemical measurement in cytosol fractions of tumor homogenate, dextranestradiol conjugate, immunoperoxidase using tissue sections, enzyme immunoassay (EIA), and in situ hybridization. To identify a patient's ability to respond to treatment in breast and other cancers, report 84234. This test may be ordered as a PgR assay. The specimen is surgical tissue. Methods may include sucrose density gradient, steroid binding assay, and enzyme immunoassay. To predict or monitor patient response to hormonal therapy, report 84235. The specimen is whole blood or plasma; separately reportable biopsy or surgical excision for tumor tissue. Methods are radioimmunoassay (most commonly used technique), gas-liquid and liquid chromatography or electrophoresis. This test reported with 84238 may be used to predict or monitor patient response to therapy, including AChR. Methods include radioimmunoassay (most commonly used technique), gas-liquid and liquid chromatography or electrophoresis. The test is performed to determine the concentration of the target substance.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**chemotherapy,** Treatment of disease, especially cancerous conditions, using chemical agents.

**estrogen,** Group of estrus-stimulating hormones produced by the ovaries, possibly the adrenal cortex and testes, which have different functions in both sexes. They are the main female sex hormones (estradiol, estrone, and estriol) responsible for the maturation and development of female secondary sex characteristics and act on the reproductive organs to prepare for fertilization, implantation, and nourishment of the embryo. Estrogens also have nonreproductive actions such as minimizing calcium loss from bones by antagonizing the effects of parathyroid hormone and promoting blood clotting.
84244

Explanation
This test may be ordered as plasma renin activity, or PRA. The specimen is plasma. Certain medications such as beta-blockers, may affect testing outcome. Methodology may include radioimmunoassay.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
glomerulonephritis. Disease of the kidney with diffuse inflammation of the capillary loops of the glomeruli. It may be a complication of bacterial infection or immune disorders and can lead to renal failure and may be associated with hypertension or diabetes.
hypertension. Abnormally increased pressure, usually referring to arterial pressure, exceeding an acceptable range.
pyelonephritis. Infection of the renal pelvis and ureters that may be acute or chronic, often occurring as a result of a urinary tract infection, particularly in instances of vesicoureteric reflux, the backflow of urine from the bladder into the kidney pelvis or ureters.

ICD-9-CM Diagnostic Codes
189.0 Malignant neoplasm of kidney, except pelvis
198.0 Secondary malignant neoplasm of kidney
223.0 Benign neoplasm of kidney, except pelvis
401.0 Essential hypertension, malignant
401.1 Essential hypertension, benign
401.9 Unspecified essential hypertension
403.00 Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)
403.01 Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)
403.10 Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)
403.11 Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)
404.12 Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)
404.13 Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.5-585.6)
580.9 Acute glomerulonephritis with unspecified pathological lesion in kidney
581.0 Nephrotic syndrome with lesion of proliferative glomerulonephritis
581.1 Nephrotic syndrome with lesion of membranous glomerulonephritis
581.2 Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis
581.3 Nephrotic syndrome with lesion of minimal change glomerulonephritis
581.81 Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 084.9, 249.4, 250.4, 277.30-277.39, 446.0, 710.0)
581.9 Nephrotic syndrome with unspecified pathological lesion in kidney
642.00 Benign essential hypertension complicating pregnancy, childbirth, and the puerperium, unspecified as to episode of care
642.01 Benign essential hypertension with delivery
642.02 Benign essential hypertension, with delivery, with current postpartum complication
642.03 Benign essential hypertension antepartum

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

Explanation
This test may also be known by the abbreviation Se. The specimen is serum or urine collected over a 24-hour period. Methods may include fluorometry and atomic absorption. The blood and the urine test may be performed simultaneously. This test may be ordered to monitor nutritional therapy and for possible toxic exposure.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers will not cover the cost of this procedure if performed by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

270.1 Phenylketonuria (PKU) — (Use additional code to identify any associated intellectual disabilities)

403.01 Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

403.11 Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

403.91 Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

404.02 Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

404.03 Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

404.12 Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

404.13 Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.5-585.6)

584.5 Acute kidney failure with lesion of tubular necrosis

584.6 Acute kidney failure with lesion of renal cortical necrosis

584.7 Acute kidney failure with lesion of medullary [papillary] necrosis

585.1 Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

585.2 Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

585.3 Chronic kidney disease, Stage III (moderate) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

585.4 Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

585.5 Chronic kidney disease, Stage V — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

585.6 End stage renal disease — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

985.8 Toxic effect of other specified metals — (Use additional code to specify the nature of the toxic effect)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>209.00</td>
<td>Malignant carcinoid tumor of the small intestine, unspecified portion — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.01</td>
<td>Malignant carcinoid tumor of the duodenum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.02</td>
<td>Malignant carcinoid tumor of the jejunum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.03</td>
<td>Malignant carcinoid tumor of the ileum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.10</td>
<td>Malignant carcinoid tumor of the large intestine, unspecified portion — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.11</td>
<td>Malignant carcinoid tumor of the appendix — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.12</td>
<td>Malignant carcinoid tumor of the cecum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.13</td>
<td>Malignant carcinoid tumor of the ascending colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.14</td>
<td>Malignant carcinoid tumor of the transverse colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.15</td>
<td>Malignant carcinoid tumor of the descending colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.16</td>
<td>Malignant carcinoid tumor of the sigmoid colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.21</td>
<td>Malignant carcinoid tumor of the bronchus and lung — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
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<tr>
<td>209.40</td>
<td>Benign carcinoid tumor of the small intestine, unspecified portion — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.41</td>
<td>Benign carcinoid tumor of the duodenum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
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<tr>
<td>209.42</td>
<td>Benign carcinoid tumor of the jejunum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Sex hormone binding globulin (SHBG)

Explanation
The test may be used to predict or monitor patient response to hormonal therapy and to assist in certain diagnoses, including hypothyroidism and hyperthyroidism. This test may also be ordered as SHBG. The specimen is serum which requires special handling or amniotic fluid. Methods include CMA or radioimmunoassay.

Coding Tips
For amniotic fluid specimen, a separately reportable amniocentesis is performed. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).

Klinefelter's syndrome. Male in development, but with seminal tube dysgenesis, gynecomastia, and urinary gonadotropins. Report this disorder with ICD-9-CM code 758.7. Synonym(s): XXY syndrome.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>242.00</td>
<td>Toxic diffuse goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.01</td>
<td>Toxic diffuse goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.10</td>
<td>Toxic uninodeular goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.11</td>
<td>Toxic uninodeular goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.20</td>
<td>Toxic multinodal goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.21</td>
<td>Toxic multinodal goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.30</td>
<td>Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.31</td>
<td>Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.40</td>
<td>Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.41</td>
<td>Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>242.80</td>
<td>Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
</tr>
<tr>
<td>242.81</td>
<td>Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
</tr>
<tr>
<td>242.90</td>
<td>Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.91</td>
<td>Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm</td>
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</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Sodium is an electrolyte found in extracellular fluid. Blood specimen for serum, plasma, or whole blood sodium (Na) in 84295 is obtained by venipuncture. Methods include atomic absorption spectrometry (AAS), flame emission photometry, and ion-selective electrode (ISE). The specimen for urine Na in 84300 is collected over a 24-hour period or by random urine sample. Methods may include flame emission photometry and ISE. This test is used to identify increased (hypernatremia) and decreased (hyponatremia) levels of sodium due to various conditions or disease states. Report 84302 for a sodium level test done on another source of specimen other than blood serum or urine.

Coding Tips
Code 84295 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
glomerulonephritis. Disease of the kidney with diffuse inflammation of the capillary loops of the glomeruli. It may be a complication of bacterial infection or immune disorders and can lead to renal failure and may be associated with hypertension or diabetes.
hyperosmolality. Excessive electrolytes in the blood.
hyposmolality. Deficiency of electrolytes in the blood.
nephrotic syndrome. Condition where levels of albumin in the blood and urine are far below the norm.

ICD-9-CM Diagnostic Codes
253.6 Other disorders of neurohypophysis
276.0 Hyperosmolality and/or hyponatremia — (Use additional code to identify any associated intellectual disabilities)
276.1 Hyposmolality and/or hyponatremia — (Use additional code to identify any associated intellectual disabilities)

<table>
<thead>
<tr>
<th>Code</th>
<th>Work Value</th>
<th>Non-Fac PE</th>
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<th>Malpractice</th>
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Somatomedin is a protein mainly produced in the liver. It is a peptide dependent on growth hormone for its actions. This test may be used to diagnose and evaluate response to therapy for a variety of growth disorders. The test may be performed to diagnose acromegaly, dwarfism, pituitary disease and disorders, nutritional deficiencies, and to monitor response to therapies. The specimen is plasma, which requires special handling. Methodology may use a process of dissociation from binding protein and chromatography, followed by radioimmunoassay (RIA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- **acromegaly**: Chronic condition caused by overproduction of the pituitary growth hormone that results in enlarged skeletal parts and facial features.
- **hormone**: Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).
- **morbid obesity**: Accumulation of excess fat in the subcutaneous connective tissue with increased weight beyond the limits of skeletal requirements, defined as 125 percent or more over the ideal body weight. It is often associated with serious conditions that can become life threatening, such as diabetes, hypertension, and arteriosclerosis.
- **pituitary gland**: Hormone-controlling epithelial body located within the sella turcica at the base of the brain that secretes most of the body’s hormones and regulates neurohormones received from the hypothalamus.

**ICD-9-CM Diagnostic Codes**
- 253.0 Acromegaly and gigantism
- 259.1 Precocious sexual development and puberty, not elsewhere classified
- 259.4 Dwarfism, not elsewhere classified
- 263.9 Unspecified protein-calorie malnutrition
- 278.00 Obesity, unspecified — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54) (Use additional code to identify any associated intellectual disabilities)
- 278.01 Morbid obesity — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)
- 278.02 Overweight — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54)

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84375
84375  Sugars, chromatographic, TLC or paper chromatography

Explanation
Fructose, galactose, lactose, maltose, and l-xyulose are sugars found in urine of patients with inherited metabolic disorders. Thin layer chromatography or paper chromatography is a method to separate and identify sugars in urine when a metabolic order is suspected.

Coding Tips
For qualitative and quantitative analysis of sugars, see codes 84376-84379. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
carbohydrate-deficient glycoprotein syndrome. Rare genetic disorder affecting the enzymes used in sugar synthesis, manifesting symptoms in infancy. Symptoms may include neurologic impairment, low blood sugar, gastrointestinal disturbances, and delayed development. CDGS is reported with ICD-9-CM code 271.8. Synonym(s): CDGS.
galactosemia. Congenital disorder marked by the inability to metabolize galactose due to a missing enzyme.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
271.0  Glycogenosis — (Use additional code to identify any associated intellectual disabilities)
271.1  Galactosemia — (Use additional code to identify any associated intellectual disabilities)
271.2  Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)
271.3  Intestinal disaccharidase deficiencies and disaccharide malabsorption — (Use additional code to identify any associated intellectual disabilities)
271.4  Renal glycosuria — (Use additional code to identify any associated intellectual disabilities)
271.8  Other specified disorders of carbohydrate transport and metabolism — (Use additional code to identify any associated intellectual disabilities)
271.9  Unspecified disorder of carbohydrate transport and metabolism — (Use additional code to identify any associated intellectual disabilities)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

<table>
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</table>
Sugars (mono-, di-, and oligosaccharides); single qualitative, each specimen
84376
multiple qualitative, each specimen
84377
single quantitative, each specimen
84378
multiple quantitative, each specimen
84379

Explanation
These tests may be used for infants who are failing to thrive due to lactose, sucrose, or fructose imbalances. Methods include gas chromatography and mass spectrometry to test for sugars, mono-, di-, and oligosaccharides in body fluids.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
galactosemia. Congenital disorder marked by the inability to metabolize galactose due to a missing enzyme.
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
271.0 Glycogenosis — (Use additional code to identify any associated intellectual disabilities)
271.1 Galactosemia — (Use additional code to identify any associated intellectual disabilities)
271.2 Hereditary fructose intolerance — (Use additional code to identify any associated intellectual disabilities)
271.3 Intestinal disaccharidase deficiencies and disaccharide malabsorption — (Use additional code to identify any associated intellectual disabilities)
271.4 Renal glycosuria — (Use additional code to identify any associated intellectual disabilities)
271.8 Other specified disorders of carbohydrate transport and metabolism — (Use additional code to identify any associated intellectual disabilities)
271.9 Unspecified disorder of carbohydrate transport and metabolism — (Use additional code to identify any associated intellectual disabilities)

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<th>Work Value</th>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
Also not with 84377: 84376
Also not with 84378: 84376
Also not with 84379: 84376-84378
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**84402-84403**

<table>
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<tr>
<th>Code</th>
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<tr>
<td>84402</td>
<td>Testosterone; free</td>
</tr>
<tr>
<td>84403</td>
<td>Total</td>
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</tbody>
</table>

**Explanation**

These tests may be used to evaluate testosterone levels. Testosterone is an androgenic hormone responsible for, among other biological activities, secondary male characteristics in women. Increased testosterone levels in women may be linked to a variety of conditions, including hirsutism. Code 84403 reports total testosterone, which includes both protein bound and free testosterone. Code 84402 reports testosterone as a free unbound protein. This test may be ordered to assist in diagnosis of hypogonadism, hypopituitarism, and Klinefelter’s syndrome, among other disorders. The specimen is serum. Method may be by radioimmunoassay (RIA) and immunoassay (non-isotopic).

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **Androgen.** Male sex hormone. Testosterone is the primary androgen. In the fetus, androgens cause the formation of external male genitalia.
- **Hirsutism.** Excessive hair growth exhibited in males in androgen-stimulated locations, such as the face, chest, and areolae, and in females hair appears in locations where hair is usually absent.
- **Hypogonadism.** Malfunction within the reproductive gland inhibiting the capacity to produce hormones.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>220</td>
<td>Benign neoplasm of ovary — (Use additional code to identify any functional activity: 256.0-256.1)</td>
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<tr>
<td>222.0</td>
<td>Benign neoplasm of testis — (Use additional code to identify any functional activity)</td>
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<tr>
<td>253.2</td>
<td>Panhypopituitarism</td>
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<td>256.39</td>
<td>Other ovarian failure — (Use additional code for states associated with natural menopause: 627.2)</td>
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<tr>
<td>256.4</td>
<td>Polycystic ovaries</td>
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<tr>
<td>257.2</td>
<td>Other testicular hypofunction</td>
</tr>
<tr>
<td>259.1</td>
<td>Precocious sexual development and puberty, not elsewhere classified</td>
</tr>
<tr>
<td>302.72</td>
<td>Psychosexual dysfunction with inhibited sexual excitement</td>
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<tr>
<td>607.84</td>
<td>Impotence of organic origin</td>
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<th>Fac PE</th>
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</table>

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84425

84425  Thiamine (Vitamin B-1)

**Explanation**
This is also known as Vitamin B1. The specimen is whole blood. Methods are high performance liquid chromatography and thiochrome-fluorometry. Mild thiamine deficiency occurs during pregnancy, in alcoholics, the elderly and in cases of persistent vomiting and fasting. Severe thiamine deficiency, called beriberi, is characterized by peripheral neuritis or cardiac failure. The quantitation of thiamine provides the sensitivity and specificity necessary for clinical evaluation of thiamine nutritional status.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **goiter**: Abnormal enlargement of the thyroid gland commonly caused by a deficiency of dietary iodine.
- **neuritis**: Inflammation of a nerve or group of nerves, often manifested by loss of function and reflexes, pain, and numbness or tingling.
- **thyrotoxicosis**: Condition caused by excessive quantities of hormones from the thyroid gland from overproduction or loss of storage ability. **Synonym(s): hyperthyroidism**.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>242.00</td>
<td>Toxic diffuse goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.01</td>
<td>Toxic diffuse goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.10</td>
<td>Toxic uninodular goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.11</td>
<td>Toxic uninodular goiter with mention of thyrotoxic crisis or storm</td>
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<td>242.20</td>
<td>Toxic multinodular goiter without mention of thyrotoxic crisis or storm</td>
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<td>Toxic multinodular goiter with mention of thyrotoxic crisis or storm</td>
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<td>Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm</td>
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<td>Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm</td>
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<td>242.40</td>
<td>Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm</td>
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<td>Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm</td>
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<tr>
<td>242.80</td>
<td>Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
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<td>242.81</td>
<td>Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
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<tr>
<td>242.90</td>
<td>Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm</td>
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<tr>
<td>242.91</td>
<td>Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm</td>
</tr>
</tbody>
</table>

963.5  Poisoning by vitamins, not elsewhere classified — (Use additional code to specify the effects of poisoning)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

84591

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
84431

84431    Thromboxane metabolite(s), including thromboxane if performed, urine

Explanation
This immunoassay is used to measure thromboxane metabolites, including thromboxane, if performed. The specimen is urine. Determination of the total level of thromboxane production is useful in identifying patients who remain at risk of a cardiovascular event despite being on aspirin therapy.

Coding Tips
Report concurrent urine creatinine determination by reporting code 84431 with code 82570. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
eosinophilia. Abnormally large accumulation or formation of eosinophils (nucleated, granular leukocytes) in the blood, characteristic of allergic states and infection. Report this condition with ICD-9-CM code 288.3.

infection. Presence of microorganisms in body tissues that may result in cellular damage.

obstruction. Blockage that prevents normal function of the valve or structure.

ICD-9-CM Diagnostic Codes
472.0    Chronic rhinitis — (Use additional code to identify infectious organism)
486      Pneumonia, organism unspecified
493.00   Extrinsic asthma, unspecified
493.01   Extrinsic asthma with status asthmaticus
493.02   Extrinsic asthma, with (acute) exacerbation
493.10   Intrinsic asthma, unspecified
493.11   Intrinsic asthma with status asthmaticus
493.12   Intrinsic asthma, with (acute) exacerbation
493.20   Chronic obstructive asthma, unspecified
493.21   Chronic obstructive asthma with status asthmaticus
493.22   Chronic obstructive asthma, with (acute) exacerbation
493.81   Exercise induced bronchospasm
493.82   Cough variant asthma
493.90   Asthma, unspecified, unspecified status
493.91   Asthma, unspecified with status asthmaticus
493.92   Asthma, unspecified, with (acute) exacerbation
496      Chronic airway obstruction, not elsewhere classified — (Note: This code is not to be used with any code from 491-493)
518.3    Pulmonary eosinophilia — (Use additional code to identify infectious organism)
518.89   Other diseases of lung, not elsewhere classified — (Use additional code to identify infectious organism)

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Thyroglobulin

Explanation
This test is also known as Tg. The specimen is serum. This test is performed to determine thyroglobulin levels to identify thyroid disorders and tumors.

Coding Tips
For thyroglobulin antibody, see code 86800. For thyrotropin releasing hormone (TRH), see codes 80438 and 80439. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
congenital. Present at birth, occurring through heredity or an influence during gestation up to the moment of birth.
endocrine. Secretions distributed within the bloodstream that control metabolism.
goiter. Abnormal enlargement of the thyroid gland commonly caused by a deficiency of dietary iodine.
thyroid. Endocrine gland located in the front of the lower neck composed of two lobes on either side of the trachea, responsible for secreting and storing the thyroid hormones that regulate metabolism.

ICD-9-CM Diagnostic Codes
Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity) 193
Goiter, specified as simple 240.0
Goiter, unspecified 240.9
Nontoxic uniodular goiter 241.0
Nontoxic multinodular goiter 241.1
Unspecified nontoxic nodular goiter 241.9
Toxic diffuse goiter without mention of thyrotoxic crisis or storm 242.00
Toxic diffuse goiter with mention of thyrotoxic crisis or storm 242.01
Toxic uniodular goiter without mention of thyrotoxic crisis or storm 242.10
Toxic uniodular goiter with mention of thyrotoxic crisis or storm 242.11
Toxic multinodular goiter without mention of thyrotoxic crisis or storm 242.20
Toxic multinodular goiter with mention of thyrotoxic crisis or storm 242.21
Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm 242.30
Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm 242.31
Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm 242.40
Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm 242.41
Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced) 242.80
Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced) 242.81
Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm 242.90
Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm 242.91
Congenital hypothyroidism — (Use additional code to identify associated intellectual disabilities) 243
Unspecified disorder of thyroid 246.9
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
84436-84439 - NCD

84436  Thyroxine; total
84437  requiring elution (eg, neonatal)
84439  free

Explanation
A test for total thyroxine, code 84436, may be ordered as a T4. The specimen is serum. Methods may include radioimmunoassay (RIA), enzyme-linked immunosorbent assay (ELISA), fluorescence polarization immunoassay (FPIA), and chemiluminescence assay (CIA). The test is performed to determine thyroid function as screening test; total thyroxine makes up approximately 99 percent of the thyroid hormone. Reported with 84437, the free thyroxine may be ordered as a neonatal T4. The specimen is whole blood. The specimen may be taken at the same time as a PKU (Phenylalanine) test. Method is typically radioimmunoassay (RIA). The test may be performed to determine hypothyroidism in newborns (performed in all 50 states) to prevent mental retardation and to monitor suppressive and replacement therapy. The test reported with 84439 may be ordered as a FT4, free T4, FTI or FT4 index. The specimen is serum, requiring special handling. Methods may include radioimmunoassay and equilibrium dialysis for reference method. Free thyroxine is a minimal amount of the total T4 level (approximately one percent). This test is not influenced by thyroid-binding abnormalities and perhaps correlates more closely with the true hormonal status. It may be effective in the diagnosis of hyperthyroidism and hypothyroidism.

Coding Tips
A national coverage determination (NCD) applies to codes 84436 and 84439. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.22. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Assay. Test of purity. Neonatal period. Period of an infant’s life from birth to the age of 27 days, 23 hours, and 59 minutes.

ICD-9-CM Diagnostic Codes
193  Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
226  Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)

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Thyroxine binding globulin (TBG)

Explanation
Thyroxine binding globulin is a plasma protein that binds with thyroxine and transports it in the blood. Elevated levels may be associated with pregnancy and newborn states, hepatitis, and other disorders. Decreased levels may be associated with liver diseases and acromegaly, among other disorders. The specimen is serum. Methods may include chemiluminescent immunoassay, equilibrium dialysis, ultrafiltration, and solid phase enzyme immunoassay (EIA) technology.

Coding Tips
See code 86800 for thyroglobulin antibody. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
193 Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
198.82 Secondary malignant neoplasm of genital organs
209.20 Malignant carcinoid tumor of unknown primary site — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)
209.30 Malignant poorly differentiated neuroendocrine carcinoma, any site — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)
209.60 Benign carcinoid tumor of unknown primary site — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)
209.79 Secondary neuroendocrine tumor of other sites
226 Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)
227.3 Benign neoplasm of pituitary gland and craniopharyngeal duct (pouch) — (Use additional code to identify any functional activity)
234.8 Carcinoma in situ of other specified sites

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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84443 - NCD

Thyroid stimulating hormone (TSH)

Explanation
TSH is produced in the pituitary gland and stimulates the secretion of thyrotropin (T3) and thyroxine (T4); these secretory products monitor TSH. The specimen is serum, requiring special handling. Heel stick or umbilical cord sample is drawn from newborns and may be collected on a special paper. Methods may include radioimmunoassay (RIA), sandwich immunoradiometric assay (IRMA), fluorometric enzyme immunoassay with use of monoclonal antibodies, or microparticle enzyme immunoassay on Imx (MEIA). This test may be performed to determine thyroid function, to differentiate from various types of hypothyroidism (e.g., primary, and pituitary/hypothalamic), or to diagnose hyperthyroidism. The test may be ordered to evaluate therapy in patients receiving hypothyroid treatment, and to detect congenital hypothyroidism.

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.22. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. See code 84445 for thyroid stimulating immune globulins (TSI). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
183.0 Malignant neoplasm of ovary — (Use additional code to identify any functional activity)
193 Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
226 Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)
237.4 Neoplasm of uncertain behavior of other and unspecified endocrine glands
239.7 Neoplasm of unspecified nature of endocrine glands and other parts of nervous system
240.0 Goiter, specified as simple
240.9 Goiter, unspecified
241.0 Nontoxic uninodular goiter
241.1 Nontoxic multinodular goiter

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Coding and Payment Guide for Laboratory Services

84443

84443

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80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

IOM References
100-3, 190.22; 100-4, 16, 70.8

CCI Version 20.0

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
84445
Thyroid stimulating immune globulins (TSI)

Explanation
This test may also be ordered as TSI. This serum test measures the amount of thyroid stimulating antibody, which stimulates the thyroid to produce excessive amounts of thyroid hormone. Methods may include vitro bioassay and radioimmunoassay. The test may be useful in diagnosis of Grave’s disease (hyperthyroidism).

Coding Tips
For thyroid stimulating hormone (TSH) see code 84443. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.
goiter. Abnormal enlargement of the thyroid gland commonly caused by a deficiency of dietary iodine.
Graves’ disease. Enlargement of the thyroid gland seen mostly in women, stemming from an autoimmune process, and causing excessive secretion of thyroid hormone, goiter, and bulging eyes. The syndrome seen with hyperplasia of the thyroid and excessive hormone production consists of fatigue, nervousness, emotional lability and irritability, heat intolerance and increased sweating, weight loss, palpitations, and tremor of the hands and tongue.
hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).

ICD-9-CM Diagnostic Codes
193 Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
226 Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)
240.0 Goiter, specified as simple
240.9 Goiter, unspecified
241.0 Nontoxic uniodular goiter
241.1 Nontoxic multinodular goiter
241.9 Unspecified nontoxic nodular goiter
242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01 Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.10 Toxic uniodular goiter without mention of thyrotoxic crisis or storm
242.11 Toxic uniodular goiter with mention of thyrotoxic crisis or storm
242.20 Toxic multinodular goiter without mention of thyrotoxic crisis or storm
242.21 Toxic multinodular goiter with mention of thyrotoxic crisis or storm
242.30 Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm
242.31 Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm
244.0 Postsurgical hypothyroidism
244.1 Other postablative hypothyroidism
244.2 Iodine hypothyroidism — (Use additional E code to identify drug)
244.3 Other iatrogenic hypothyroidism — (Use additional E code to identify drug)
244.6 Other specified acquired hypothyroidism
244.9 Unspecified hypothyroidism
245.2 Chronic lymphocytic thyroiditis
775.3 Neonatal thyrotoxicosis — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**ICD-9-CM Diagnostic Codes**

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<td>070.00</td>
<td>Viral hepatitis A with hepatic coma</td>
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<tr>
<td>070.01</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
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<td>070.02</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
<td>070.03</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
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<td>070.04</td>
<td>Viral hepatitis B without mention of hepatic coma</td>
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<tr>
<td>070.05</td>
<td>Viral hepatitis B without mention of hepatic coma</td>
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<td>070.06</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<td>070.07</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
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<td>070.08</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.09</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
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**Coding Tips**

These codes represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable.

For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>070.31</td>
<td>Viral hepatitis B without mention of hepatitis delta</td>
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<tr>
<td>070.32</td>
<td>Viral hepatitis B with hepatitis delta</td>
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</tbody>
</table>

**Explanation**

Reported with 84450, this test is usually referred to as aspartate aminotransferase (AST) or as serum glutamic oxaloacetic transaminase (SGOT). AST is an enzyme found primarily in heart muscle and the liver. Serum levels are low unless there is cellular damage, at which time large amounts are released into circulation. AST levels are increased following acute myocardial infarction (MI). Liver disease may also cause elevated levels of AST. Blood specimen is serum or plasma. Method is spectrophotometry, kinetic assay, and enzymatic. Code 84460 is reported when the test usually referred to as alanine aminotransferase (ALT) or as serum glutamic pyruvic transaminase (SGPT) is performed. ALT is an enzyme found primarily in liver cells and elevations may be indicative of liver disease. Blood specimen is serum or plasma. Method is spectrophotometry or enzymatic.
**84466 - NCD**

**84466  ** Transferin

**Explanation**
An alternative name for this test is siderophilin. The specimen is serum. Measurement of transferrin levels in serum aids in the diagnosis of malnutrition, acute inflammation, infection, and red blood cell disorders, such as iron deficiency anemia. Methods of testing vary to include immunologic or turbidometric assay.

**Coding Tips**
A national coverage determination (NCD) applies to code 84466. See the Medicare National Coverage Determinations Manual, Pub. 100-3, section 190.18. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **anemia**: Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
- **infection**: Presence of microorganisms in body tissues that may result in cellular damage.
- **inflammation**: Cytologic and chemical reactions that occur in affected blood vessels and adjacent tissues in response to injury or abnormal stimulation from a physical, chemical, or biologic agent.
- **malnutrition**: Nutritional insufficiency that may be due to inadequate dietary intake or a defect in the body's ability to absorb or utilize the food ingested.

**ICD-9-CM Diagnostic Codes**

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<td>008.01</td>
<td>Intestinal infection due to enteropathogenic E. coli</td>
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<tr>
<td>008.2</td>
<td>Intestinal infection due to aerobacter aerogenes</td>
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<tr>
<td>008.3</td>
<td>Intestinal infections due to proteus (mirabilis) (morganii)</td>
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<tr>
<td>008.41</td>
<td>Intestinal infections due to staphylococcus</td>
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<td>008.42</td>
<td>Intestinal infections due to pseudomonas</td>
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<td>008.43</td>
<td>Intestinal infections due to campylobacter</td>
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<td>008.44</td>
<td>Intestinal infections due to yersinia enterocolitica</td>
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<td>008.45</td>
<td>Intestinal infections due to clostridium difficile</td>
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<td>008.46</td>
<td>Intestinal infections due to other anaerobes</td>
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<td>008.47</td>
<td>Intestinal infections due to other gram-negative bacteria</td>
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<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
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<td>403.01</td>
<td>Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)</td>
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<td>403.11</td>
<td>Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)</td>
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<td>404.02</td>
<td>Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)</td>
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<td>404.03</td>
<td>Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.5-585.6)</td>
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<td>425.4</td>
<td>Other primary cardiomyopathies</td>
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<td>Alcohol cardiomyopathy</td>
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<td>425.7</td>
<td>Nutritional and metabolic cardiomyopathy — (Code first underlying disease: 242.0-242.9, 265.0, 271.0, 277.30-277.39, 277.5)</td>
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<td>535.70</td>
<td>Eosinophilic gastritis without mention of hemorrhage</td>
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<td>Eosinophilic gastritis with hemorrhage</td>
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<td>562.12</td>
<td>Diverticulosis of colon with hemorrhage — (Use additional code to identify any associated peritonitis: 567.0-567.9)</td>
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<td>Premenopausal menorrhagia</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.18

**CCI Version 20.0**

83550

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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84478 - NCD
84478  Triglycerides

Explanation
This test may be requested as trig. Triglycerides are blood lipids that are transported through the circulatory system by lipoproteins. Triglycerides contribute to atherosclerosis and other arterial diseases. Blood specimen is serum or plasma. Method is enzymatic or colorimetry.

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.23. Code 84478 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
<th>Fac Total</th>
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<tr>
<td>272.0</td>
<td>Pure hypercholesterolemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>272.1</td>
<td>Pure hyperglycemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<tr>
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<td>Mixed hyperlipidemia — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>272.5</td>
<td>Lipoprotein deficiencies — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>272.6</td>
<td>Lipodystrophy — (Use additional code to identify any associated intellectual disabilities) (Use additional E code to identify cause, if iatrogenic)</td>
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<td>Obesity, unspecified — (Use additional code to identify Body Mass Index (BMI), if known: V85.0-V85.54) (Use additional code to identify any associated intellectual disabilities)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2,11,30.2.2; 100-3,190.23; 100-4,16,70.8

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
84479 - NCD

84479 Thyroid hormone (T3 or T4) uptake or thyroid hormone binding ratio (THBR)

Explanation
This test may be requested as T3 uptake and T4 uptake or THBR. The specimen is serum. Method is chemiluminescent immunoassay.

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.22. For thyroid stimulating hormone (TSH), see code 84443. For thyroid stimulating immune globulins (TSI), see code 84445. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
dysmenorrhea. Painful menstruation that may be primary, or essential, due to prostaglandin production and the onset of menstruation; secondary due to uterine, tubal, or ovarian abnormality or disease; spasmodic arising uterine contractions; or obstructive due to some mechanical blockage or interference with the menstrual flow.
endocrine. Secretions distributed within the bloodstream that control metabolism.
goiter. Abnormal enlargement of the thyroid gland commonly caused by a deficiency of dietary iodine.
hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).
metabolism. Combination of processes occurring in any living organism to produce and maintain organized building blocks (anabolism) and to break down food substances into usable, available energy (catabolism).
thyroid. Endocrine gland located in the front of the lower neck composed of two lobes on either side of the trachea, responsible for secreting and storing the thyroid hormones that regulate metabolism.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>193</td>
<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
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<td>226</td>
<td>Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)</td>
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<tr>
<td>240.0</td>
<td>Goiter, specified as simple</td>
</tr>
<tr>
<td>240.9</td>
<td>Goiter, unspecified</td>
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<tr>
<td>241.0</td>
<td>Nontoxic uninodular goiter</td>
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<tr>
<td>241.1</td>
<td>Nontoxic multinodular goiter</td>
</tr>
<tr>
<td>241.9</td>
<td>Unspecified nontoxic nodular goiter</td>
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<tr>
<td>242.00</td>
<td>Toxic diffuse goiter without mention of thyrotoxic crisis or storm</td>
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<tr>
<td>242.01</td>
<td>Toxic diffuse goiter with mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.10</td>
<td>Toxic uninodular goiter without mention of thyrotoxic crisis or storm</td>
</tr>
<tr>
<td>242.11</td>
<td>Toxic uninodular goiter with mention of thyrotoxic crisis or storm</td>
</tr>
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<td>242.20</td>
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<td>242.21</td>
<td>Toxic multinodular goiter with mention of thyrotoxic crisis or storm</td>
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<tr>
<td>242.30</td>
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<td>242.31</td>
<td>Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm</td>
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<td>242.40</td>
<td>Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm</td>
</tr>
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<td>242.41</td>
<td>Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm</td>
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<td>242.90</td>
<td>Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm</td>
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<td>242.91</td>
<td>Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm</td>
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<tr>
<td>243</td>
<td>Congenital hypothyroidism — (Use additional code to identify associated intellectual disabilities)</td>
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<td>Other specified acquired hypothyroidism</td>
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<td>244.9</td>
<td>Unspecified hypothyroidism</td>
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<td>245.0</td>
<td>Acute thyroiditis — (Use additional code to identify organism)</td>
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<td>Panhypopituitarism</td>
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<td>253.7</td>
<td>Iatrogenic pituitary disorders — (Use additional E code to identify cause)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.22

CCI Version 20.0
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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84480-84482
84480  Triiodothyronine T3; total (TT-3)
84481  free
84482  reverse

Explanation
A triiodothyronine T3 test may be ordered as a T3 (RIA) or total T3 and is reported with 84480. The specimen is serum. Methods may include radioimmunoassay (RIA), immunochemiluminometric assay, and fluorometric immunoassay. Abnormal results may be diseases and disorders related to the thyroid. Reported with 84481, a free triiodothyronine may also be known as FT3, or free T3. The specimen is serum. Method may involve equilibrium dialysis (tracer). This test may be used to identify thyroid dysfunction, such as hyperthyroidism and hypothyroidism. Reverse T3 (rT3) is an inactive form of the thyroid hormone T3, and is found in the blood of normal people. This test is reported with 84482. The specimen is serum. Measurement of rT3 has been suggested in differentiating euthyroid sick syndrome from true hypothyroidism, and in identifying factitious hyperthyroidism. RT3 is typically measured by radioimmunoassay.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
euthyroid sick syndrome. Transient alteration in thyroid hormone metabolism resulting in abnormally low levels of the thyroid hormone tri-iodothyronine in persons with systemic, non-thyroid illness or stress, and no symptoms of hypothyroidism. Report this condition with ICD-9-CM code 790.94.
thyroid. Endocrine gland located in the front of the lower neck composed of two lobes on either side of the trachea, responsible for secreting and storing the thyroid hormones that regulate metabolism.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>193 Benign neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
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</tr>
<tr>
<td>209.30 Malignant poorly differentiated neuroendocrine carcinoma, any site — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinosarcoma: 259.2)</td>
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</table>

<table>
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<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
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</table>

CCI Version 20.0
80500-80502
Also not with 84481: 84480

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
84484

84484  Troponin, quantitative

Explanation
This test may also be known as troponin regulatory complex. The specimen is serum. Methods may include radioimmunoassay, enzyme-linked immunosorbent assay, and immunoenzymatic assay. This quantitative test measures the levels of troponin, found in muscle tissues. Elevated levels of troponin may be related to myocardial infarction and ischemic heart disease.

Coding Tips
For a qualitative troponin assay, see code 84512. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

**angina.** Chest pain that occurs secondary to the inadequate delivery of oxygen to the heart muscle and may be described as a heavy or squeezing pain in the midsternal area of the chest.

**cardiogenic shock.** Shock caused by an inadequate supply of oxygen to the body's tissues due to a malfunction of the pumping action of the heart.

**ischemia.** Deficiency in blood supply causing tissues to be deprived of oxygen, resulting from trauma, mechanical or functional constriction of blood vessels, or a physical obstruction.

**myocardial infarction.** Obstruction of circulation to the heart, resulting in necrosis.

**septic shock.** Progression from septicemia to severe sepsis with shock, which carries a greater than 50 percent mortality rate. Septic shock presents with severe sepsis with low blood pressure, decreased urine output, increased oxygen demands, followed by major organ failure, manifesting systemic inflammatory disease from bacterial toxins. Coding septic shock correctly requires at least three codes to be assigned: Since septic shock is a systemic inflammatory response syndrome (SIRS) with organ dysfunction that has progressed from septicemia infection and not from trauma, the septicemia is coded first with ICD-9-CM code 038.x, to identify the type of bacteria, if known. The SIRS is coded secondarily with 995.92, followed by the additional code for septic shock, 785.52. When the specific organ failure is known, a fourth code is assigned to identify the type. Synonym(s): endotoxic shock.

**syncpe.** Light-headedness or fainting caused by insufficient blood supply to the brain.

**tachycardia.** Excessively rapid beating action of the heart, defined as more than 100 beats per minute for an adult, that is usually defined by its origin (atrial or ventricular) and whether the onset and cessation occurs in sudden attacks (paroxysmal) or in a slow pattern (nonparoxysmal).

<table>
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<th>Work Value</th>
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ICD-9-CM Diagnostic Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>410.00</td>
<td>Acute myocardial infarction of anterolateral wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.01</td>
<td>Acute myocardial infarction of anterolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>410.11</td>
<td>Acute myocardial infarction of other anterior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.21</td>
<td>Acute myocardial infarction of inferolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.22</td>
<td>Acute myocardial infarction of inferolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>410.60</td>
<td>Acute myocardial infarction, true posterior wall infarction, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>410.61</td>
<td>Acute myocardial infarction, true posterior wall infarction, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>411.0</td>
<td>Postmyocardial infarction syndrome — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>413.0</td>
<td>Angina decubitus — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>413.1</td>
<td>Prinzmetal angina — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>422.0</td>
<td>Acute myocarditis in diseases classified elsewhere — (Code first underlying disease: 017.9, 487.8, 488.09, 488.19)</td>
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<tr>
<td>422.91</td>
<td>Idiopathic myocarditis</td>
</tr>
<tr>
<td>422.93</td>
<td>Toxic myocarditis</td>
</tr>
<tr>
<td>427.0</td>
<td>Paroxysmal supraventricular tachycardia</td>
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<tr>
<td>427.1</td>
<td>Paroxysmal ventricular tachycardia</td>
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<tr>
<td>427.31</td>
<td>Atrial fibrillation</td>
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<td>427.32</td>
<td>Atrial flutter</td>
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<td>427.41</td>
<td>Ventricular fibrillation</td>
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<tr>
<td>427.60</td>
<td>Unspecified premature beats</td>
</tr>
<tr>
<td>427.61</td>
<td>Supraventricular premature beats</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

No CCI Edits apply to this code.
84485-84490

84485 Trypsin; duodenal fluid
84488 feces, qualitative
84490 feces, quantitative, 24-hour collection

Explanation
The test reported with code 84485 may also be referred to as duodenal trypsinogen. Trypsin in duodenal aspirate has been measured by both radioimmunoassay and enzymatic methods. Measurement is useful in evaluation of pancreatic disease, such as primary biliary cirrhosis and cystic fibrosis, and malabsorption syndromes. Codes 84488 and 84490 may be called fecal trypsin activity or immunoreactive trypsin. The specimen is fresh random stool sample. Methods may be kinetic and potentiometric, and x-ray film method. Trypsin is an enzyme that acts to degrade protein and it may be referred to as proteolytic enzyme, or proteinase. This test is performed to screen for pancreatic exocrine function and malabsorption syndromes in children under the age of four. Three specimens may be taken for an accurate assessment of pancreatic function. For qualitative screening, report 84488; for quantitative measurement, see 84490.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
acute. Sudden, severe.
chronic. Persistent, continuing, or recurring.
duodenum. First portion of the small intestine connected to the stomach at the pylorus and extending to the jejunum.
hypertrophy. Overgrowth or enlargement of normal cells in tissue.
mucosa. Moist tissue lining the mouth (buccal mucosa), stomach (gastric mucosa), intestines, and respiratory tract.
pancreatitis. Inflammation of the pancreas that may be acute or chronic, symptomatic or asymptomatic, due to the autodigestion of pancreatic tissue by its own enzymes that have escaped into the pancreas, most often as a result of alcoholism or biliary tract disease such as calculi in the pancreatic duct.

ICD-9-CM Diagnostic Codes
242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01 Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.90 Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm
242.91 Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm
535.20 Gastric mucosal hypertrophy without mention of hemorrhage
535.21 Gastric mucosal hypertrophy with hemorrhage
577.0 Acute pancreatitis

<table>
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<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
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</table>

577.1 Chronic pancreatitis
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**ICD-9-CM Diagnostic Codes**

410.01 Acute myocardial infarction of anterolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.02 Acute myocardial infarction of anterolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.30 Acute myocardial infarction of inferoposterior wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.31 Acute myocardial infarction of inferoposterior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.32 Acute myocardial infarction of inferoposterior wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.50 Acute myocardial infarction of other lateral wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.51 Acute myocardial infarction of other lateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.52 Acute myocardial infarction of other lateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

410.91 Acute myocardial infarction, unspecified site, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)

413.0 Angina decubitus — (Use additional code to identify presence of hypertension: 401.0-405.9)

413.1 Prinzmetal angina — (Use additional code to identify presence of hypertension: 401.0-405.9)

422.91 Idiopathic myocarditis

422.92 Septic myocarditis — (Use additional code to identify infectious organism)

422.93 Toxic myocarditis

427.1 Paroxysmal ventricular tachycardia

427.2 Unspecified paroxysmal tachycardia

427.31 Atrial fibrillation

427.32 Atrial flutter

427.41 Ventricular fibrillation

427.42 Ventricular flutter

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**Terms To Know**

- **Acute myocardial infarction**: Sudden, severe death of heart muscle due to decreased coronary blood flow. Classification is based on the location of the affected tissue, when known.
- **Angina**: Chest pain that occurs secondary to the inadequate delivery of oxygen to the heart muscle and may be described as a heavy or squeezing pain in the midsternal area of the chest.
- **Atrialventricular block**: Condition in which there is a disturbance of electrical conduction, such as a delay, intermittence, or absence in the transmission of an impulse from the atra to the ventricles and categorized according to degree of severity.
- **Cardiogenic shock**: Shock caused by an inadequate supply of oxygen to the body's tissues due to a malfunction of the pumping action of the heart.
- **Necrosis**: Death of cells or tissue within a living organ or structure.
- **Septic shock**: Progression from septicemic infection to severe sepsis with shock, which carries a greater than 50 percent mortality rate. Septic shock presents with severe sepsis with low blood pressure, decreased urine output, increased oxygen demands, followed by major organ failure, manifesting systemic inflammatory disease from bacterial toxins. Coding septic shock correctly requires at least three codes to be assigned: Since septic shock is a systemic inflammatory response syndrome (SIRS) with organ dysfunction that has progressed from septicemic infection and not from trauma, the sepsis is coded first with ICD-9-CM code 038.x, to identify the type of bacteria, if known. The SIRS is coded secondarily with 995.92, followed by the additional code for septic shock, 785.52. When the specific organ failure is known, a fourth code is assigned to identify the type. **Synonym(s):** endotoxic shock.
ICD-9-CM Diagnostic Codes

**276.52** Hypovolemia — (Use additional code to identify any associated intellectual disabilities)

**403.00** Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified — (Use additional code to identify the stage of chronic kidney disease: 585.1-585.4, 585.9)

**403.01** Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

**404.02** Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to identify the stage of chronic kidney disease: 585.5, 585.6)

**404.03** Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease — (Use additional code to specify type of heart failure, 428.0-428.43, if known. Use additional code to identify the stage of chronic kidney disease: 585.5-585.6)

**428.0** Congestive heart failure, unspecified — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)

**582.0** Chronic glomerulonephritis with lesion of proliferative glomerulonephritis

**582.1** Chronic glomerulonephritis with lesion of membranous glomerulonephritis

**582.2** Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis

**585.1** Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**585.2** Chronic kidney disease, Stage II (mild) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

**585.3** Chronic kidney disease, Stage III (moderate) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-2,11,30.2.2; 100-3,160.17; 100-4,16,70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>274.01</td>
<td>Acute gouty arthropathy - (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>274.02</td>
<td>Chronic gouty arthropathy without mention of tophus (tophi) - (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>711.41</td>
<td>Arthropathy associated with other bacterial diseases, shoulder region - (Code first underlying disease, such as diseases classifiable to 010-040 (except 036.82), 090-099 (except 098.50))</td>
</tr>
<tr>
<td>711.42</td>
<td>Arthropathy associated with other bacterial diseases, upper arm - (Code first underlying disease, such as diseases classifiable to 010-040 (except 036.82), 090-099 (except 098.50))</td>
</tr>
<tr>
<td>711.43</td>
<td>Arthropathy associated with other bacterial diseases, forearm - (Code first underlying disease, such as diseases classifiable to 010-040 (except 036.82), 090-099 (except 098.50))</td>
</tr>
<tr>
<td>711.44</td>
<td>Arthropathy, associated with other bacterial diseases, hand - (Code first underlying disease, such as diseases classifiable to 010-040 (except 036.82), 090-099 (except 098.50))</td>
</tr>
</tbody>
</table>

Explanation

Uric acid is also known as urate, and these tests may be requested as urate. Uric acid may be ordered to evaluate gout, renal function and a number of other disorders. Blood specimen is serum or plasma. Method is enzymatic or high performance liquid chromatography (HPLC). Report 84550 when the specimen is blood. When specimen is from any other source, report 84560. Methods may include high performance liquid chromatography, uricase, and phosphotungstate. The test may be ordered to determine the possible occurrence of calculus formation, evaluate uric acid in gout, and to identify genetic defects and some malignancies in body fluids other than blood.

Coding Tips

Code 84550 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see code 36415. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

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<td>711.54</td>
<td>Arthropathy associated with other viral diseases, hand - (Code first underlying disease: 045-049, 050-079, 480, 487)</td>
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<td>711.55</td>
<td>Arthropathy associated with other viral diseases, pelvic region and thigh - (Code first underlying disease: 045-049, 050-079, 480, 487)</td>
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<tr>
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<td>Arthropathy associated with other viral diseases, lower leg - (Code first underlying disease: 045-049, 050-079, 480, 487)</td>
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<td>711.57</td>
<td>Arthropathy associated with other viral diseases, ankle and foot - (Code first underlying disease: 045-049, 050-079, 480, 487)</td>
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<td>711.82</td>
<td>Arthropathy associated with other infectious and parasitic diseases, upper arm - (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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<td>Arthropathy associated with other infectious and parasitic diseases, forearm - (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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<td>Arthropathy associated with other infectious and parasitic diseases, hand - (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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<td>711.85</td>
<td>Arthropathy associated with other infectious and parasitic diseases, pelvic region and thigh - (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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<td>712.24</td>
<td>Chondrocalcinosis due to pyrophosphate crystals, hand - (Code first underlying disease: 275.4)</td>
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<td>712.25</td>
<td>Chondrocalcinosis due to pyrophosphate crystals, pelvic region and thigh - (Code first underlying disease: 275.4)</td>
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<td>712.26</td>
<td>Chondrocalcinosis due to pyrophosphate crystals, lower leg - (Code first underlying disease: 275.4)</td>
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<td>712.27</td>
<td>Chondrocalcinosis due to pyrophosphate crystals, ankle and foot - (Code first underlying disease: 275.4)</td>
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<td>712.82</td>
<td>Other specified crystal arthropathies, upper arm</td>
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<tr>
<td>712.83</td>
<td>Other specified crystal arthropathies, forearm</td>
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<tr>
<td>712.84</td>
<td>Other specified crystal arthropathies, hand</td>
</tr>
<tr>
<td>712.85</td>
<td>Other specified crystal arthropathies, pelvic region and thigh</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-2,11,30.2.2; 100-4,16,40.6.1; 100-4,16,70.8

CCI Version 20.0

No CCI Edits apply to this code.
84577-84583

84577  Urobilinogen, feces, quantitative
84578  Urobilinogen, urine; qualitative
84580  quantitative, timed specimen
84583  semiquantitative

Explanation
Code 84577 is also known as the urobilinogen 48-hour feces test. The specimen is by random stool sample. Method is colorimetry. It is used to detect the presence of the yellow substance called urobilin that develops from the chemical breakdown of urobilinogen, which is excreted in the feces. Report 84578 for a qualitative measurement of urobilinogen in urine. The specimen is random urine sample. Urobilinogen determination in urine is a useful liver function test, and can be helpful in evaluating some hemolytic anemias. Urobilinogen can be detected qualitatively by a simple, visual colorimetric test or by urine dipstick. Methods may include Ehrlich’s aldehyde reagent, para-dimethylaminobenzaldehyde reacts with urobilinogen with a color enhancer. Codes 84580 and 84583 are used to report quantitative or semi-quantitative measurement of urobilinogen present in the urine. The specimen may be performed over a two-hour period. Elevated levels of urobilinogen can be early indicators of various types of liver disorders. Methods may include Ehrlich’s aldehyde reagent, Watson’s method, and Urobilistix. This test identifies some cases of liver diseases and hemolytic anemias. Report 84580 for a timed quantitative measurement urobilinogen; report 84583 for a semi-quantitative measurement of urobilinogen.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
cholangitis. Inflammation of the bile ducts.
cirrhosis. Disease of the liver that has the characteristics of intertwining band of fibrous tissue that divides the parenchyma into micro- and macronodular areas, which cause the liver to stop functioning over time.
obstruction. Blockage that prevents normal function of the valve or structure.
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
Also not with 84580: 84583
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
Vanillylmandelic acid (VMA), urine

Explanation
This test is also called 3-methoxy-4-hydroxymandelic acid test, and also as VMA. Urine collection is over a 24-hour period and requires special handling. Methods may include colorimetry, spectrophotometry, gas chromatography, and high performance liquid chromatography (HPLC). The test may be performed to evaluate hypertensive states, as well as to diagnose certain tumors and to monitor the efficacy of treatment modalities.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
benign. Mild or nonmalignant in nature.
carcinoid tumor. Benign or malignant tumor that arises from neuroendocrine cells located throughout the body. The most common sites are the appendix, bronchi, rectum, small intestine, and stomach.
malignant. Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
Merkel cell carcinoma. Malignant cutaneous cancer predominantly found in immunocompromised and elderly patients with a history of sun exposure.
secondary. Second in order of occurrence or importance, or appearing during the course of another disease or condition.
tumor. Pathological swelling or enlargement; a neoplastic growth of uncontrolled, abnormal multiplication of cells.

ICD-9-CM Diagnostic Codes
194.0 Malignant neoplasm of adrenal gland
242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01 Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.90 Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm
242.91 Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm
401.0 Essential hypertension, malignant
401.1 Essential hypertension, benign
401.9 Unspecified essential hypertension
535.20 Gastric mucosal hypertrophy without mention of hemorrhage
535.21 Gastric mucosal hypertrophy with hemorrhage
557.0 Acute vascular insufficiency of intestine
557.1 Chronic vascular insufficiency of intestine
780.8 Generalized hyperhidrosis

<table>
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<tr>
<th>Work Value</th>
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<th>Fac PE</th>
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</table>

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**Explanation**

VIP (vasoactive intestinal peptide) is found in and released from the central nervous system. It is found in the gut and affects the cells of the immune system. The specimen is plasma. Method is radioimmunoassay. The test may be used to determine the concentration of vasoactive intestinal peptide (VIP) in serum.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>155.0</td>
<td>Malignant neoplasm of liver, primary</td>
</tr>
<tr>
<td>155.2</td>
<td>Malignant neoplasm of liver, not specified as primary or secondary</td>
</tr>
<tr>
<td>157.0</td>
<td>Malignant neoplasm of head of pancreas</td>
</tr>
<tr>
<td>157.1</td>
<td>Malignant neoplasm of body of pancreas</td>
</tr>
<tr>
<td>157.2</td>
<td>Malignant neoplasm of tail of pancreas</td>
</tr>
<tr>
<td>162.9</td>
<td>Malignant neoplasm of bronchus and lung, unspecified site</td>
</tr>
<tr>
<td>193</td>
<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
</tr>
<tr>
<td>194.0</td>
<td>Malignant neoplasm of adrenal gland</td>
</tr>
<tr>
<td>209.01</td>
<td>Malignant carcinoid tumor of the duodenum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.02</td>
<td>Malignant carcinoid tumor of the jejunum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.03</td>
<td>Malignant carcinoid tumor of the ileum — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.13</td>
<td>Malignant carcinoid tumor of the ascending colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.14</td>
<td>Malignant carcinoid tumor of the transverse colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
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<tr>
<td>209.15</td>
<td>Malignant carcinoid tumor of the descending colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
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<td>209.54</td>
<td>Benign carcinoid tumor of the transverse colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.55</td>
<td>Benign carcinoid tumor of the descending colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
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<tr>
<td>209.56</td>
<td>Benign carcinoid tumor of the sigmoid colon — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.66</td>
<td>Benign carcinoid tumor of midgut, not otherwise specified — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.67</td>
<td>Benign carcinoid tumor of hindgut, not otherwise specified — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
<tr>
<td>209.69</td>
<td>Benign carcinoid tumor of other sites — (Code first any associated multiple endocrine neoplasia syndrome: 258.01-258.03)(Use additional code to identify associated endocrine syndrome, as: carcinoid syndrome: 259.2)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Code</th>
<th>Work Value</th>
<th>Non-Fac PE</th>
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</tbody>
</table>
84588
84588 Vasopressin (antidiuretic hormone, ADH)

Explanation
This test is also known as Arginine Vasopressin Hormone and Antidiuretic Hormone (ADH). The specimen is plasma. Method is radioimmunoassay. Vasopressin, secreted by the hypothalamus and stored and released by the posterior pituitary gland, increases blood pressure and the rate at which the kidneys absorb water.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- assay. Test of purity.
- hormone. Chemical substance produced by the body that has a regulatory effect on the function of its specific target organ(s).
- pituitary gland. Hormone-controlling epithelial body located within the sella turcica at the base of the brain that secretes most of the body’s hormones and regulates neurohormones received from the hypothalamus.

ICD-9-CM Diagnostic Codes
253.5 Diabetes insipidus
253.6 Other disorders of neurohypophysis
276.1 Hyposmolality and/or hyponatremia — (Use additional code to identify any associated intellectual disabilities)
783.5 Polydipsia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Vitamin A

Explanation
This vitamin is also known as retinol. The specimen is serum, and requires special handling. Methods are electrochemical, high performance liquid chromatography (HPLC), and fluorescence or UV/VIS spectroscopy. Levels of vitamin A can be increased in specific diseases and toxic states, and decreased levels are seen in other conditions, such as nutritional deficiency.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
blind loop syndrome. Stasis of the intestine from many different causes that results in an overgrowth of bacteria in the small intestine. This can result from stricture, fistulae, diverticula, surgery, motility and acid secretion disturbances, or a chronic blockage in the intestine. It causes diarrhea, steatorrhea, weight loss, multiple vitamin deficiencies, and anemia. This syndrome is reported with ICD-9-CM code 579.2. Synonym(s): bacterial overgrowth syndrome, stagnant loop syndrome, stasis syndrome.
keratomalacia. Ocular condition with symptoms of dryness of the eyes, poor night vision, corneal clouding, and softening. This condition is often caused by dietary or metabolic vitamin A deficiency and protein-calorie malnutrition. If specified as due to vitamin A deficiency, report ICD-9-CM code 264.4, otherwise report 371.45.
malabsorption. Body’s inability to absorb a substance or nutrient, usually occurring in the small intestine.
pancreatic steatorrhea. Build up of fat in feces due to the absence of pancreatic fluids in the intestines and subsequent lack of digestion, reported with ICD-9-CM code 579.4.

ICD-9-CM Diagnostic Codes
264.0 Vitamin A deficiency with conjunctival xerosis
264.1 Vitamin A deficiency with conjunctival xerosis and Bitot's spot
264.2 Vitamin A deficiency with corneal xerosis
264.3 Vitamin A deficiency with corneal ulceration and xerosis
264.4 Vitamin A deficiency with keratomalacia
264.5 Vitamin A deficiency with night blindness
264.6 Vitamin A deficiency with xerophthalmic scars of cornea
264.7 Other ocular manifestations of vitamin A deficiency
264.8 Other manifestations of vitamin A deficiency
264.9 Unspecified vitamin A deficiency
278.2 Hypervitaminosis A — (Use additional code to identify any associated intellectual disabilities)
278.3 Hypercarotinemia — (Use additional code to identify any associated intellectual disabilities)
579.0 Celiac disease
579.1 Tropical sprue
579.2 Blind loop syndrome
579.3 Other and unspecified postsurgical nonabsorption
579.4 Pancreatic steatorrhea
579.8 Other specified intestinal malabsorption
579.9 Unspecified intestinal malabsorption

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
84591
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Volatiles (e.g., acetic anhydride, carbon tetrachloride, dichloroethane, dichloromethane, diethylether, isopropyl alcohol, methanol)

**Explanation**
This is also known as volatile toxicology, which would include acetone, ethanol, isopropanol, and methanol. The specimen is serum or plasma, random urine, or gastric samples (collected by gastric lavage). Method may be gas-liquid chromatography (GLC). This test is performed to determine systemic alcohol levels and possibly as surveillance for drug abuse and to evaluate methanol and isopropanol toxicity due to ingestion, inhalation, or contact.

**Coding Tips**
If the specimen is gastric contents, the lavage necessary to obtain the specimen is separately reportable. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **Drug abuse.** Individual, for whom no other diagnosis is possible, has come under medical care because of the maladaptive effect of a drug on which he is not dependent (see Drug dependence) and that he has taken on his own initiative to the detriment of his health or social functioning.
- **Inhalation.** Act of drawing in by breathing.
- **Lavage.** Washing.

**ICD-9-CM Diagnostic Codes**

<table>
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<th>Code</th>
<th>Description</th>
</tr>
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<tr>
<td>303.00</td>
<td>Acute alcoholic intoxication, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.01</td>
<td>Acute alcoholic intoxication, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.02</td>
<td>Acute alcoholic intoxication, episodic — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.03</td>
<td>Acute alcoholic intoxication, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.90</td>
<td>Other and unspecified alcohol dependence, unspecified — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.91</td>
<td>Other and unspecified alcohol dependence, continuous — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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<td>303.92</td>
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<td>Other and unspecified alcohol dependence, in remission — (Use additional code to identify any associated condition: 291.0-291.9, 304.0-304.9, 331.7, 345.0-345.9, 535.3, 571.1, 571.2, 571.3)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

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<td>Volatiles (e.g., acetic anhydride, carbon tetrachloride, dichloroethane, dichloromethane, diethylether, isopropyl alcohol, methanol)</td>
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© 2014 OptumInsight, Inc. CPT © 2014 American Medical Association. All Rights Reserved.
Mental deficits are often present. Down syndrome is reported with ICD-9-CM 758.0. Syndromes patients include low set ears, skin folds in the inner eye corners, and trisomy 21 of the 21st chromosome. Facial features common to Down syndrome.

Terms To Know

- **Synonym(s):** Mongolism, Trisomy 21.

**Gonadotropin, chorionic (hCG); quantitative**

**Qualitative.** To determine the nature of the component of substance.

**Quantitative.** To determine the amount and nature of the components of a substance.

### ICD-9-CM Diagnostic Codes

- **183.8** Malignant neoplasm of other specified sites of uterine adnexa
- **186.0** Malignant neoplasm of undescended testis — (Use additional code to identify any functional activity)
- **186.9** Malignant neoplasm of other and unspecified testis — (Use additional code to identify any functional activity)
- **198.82** Secondary malignant neoplasm of genital organs
- **630** Hydatidiform mole — (Use additional code from category 639 to identify any associated complications)
- **632** Missed abortion — (Use additional code from category 639 to identify any associated complications)
- **633.90** Unspecified ectopic pregnancy without intrauterine pregnancy — (Use additional code from category 639 to identify any associated complications)
- **633.91** Unspecified ectopic pregnancy with intrauterine pregnancy — (Use additional code from category 639 to identify any associated complications)
- **634.00** Unspecified spontaneous abortion complicated by genital tract and pelvic infection
- **634.01** Incomplete spontaneous abortion complicated by genital tract and pelvic infection
- **640.00** Threatened abortion, unspecified as to episode of care
- **640.01** Threatened abortion, delivered
- **640.03** Threatened abortion, antepartum
- **V22.0** Supervision of normal first pregnancy
- **V22.1** Supervision of other normal pregnancy

### Coding Tips

A national coverage determination (NCD) applies to code 84702. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.27. Code 84703 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state insurers require a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

### IOM References

- 100-3,190.27; 100-4,16,70.8
- 634.00

### CCI Version 20.0

Also not with 84702: 80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85004-85008 - NCD

85004  Blood count; automated differential WBC count
85007  blood smear, microscopic examination with manual differential WBC count
85008  blood smear, microscopic examination without manual differential WBC count

Explanation

These tests may be ordered as a blood count with differential, or in the case of codes 85007 and 85008 as manual blood smear examination, RBC smear, peripheral blood smear, or RBC morphology without differential parameters (85008) and with manual WBC differential (in 85007). The blood count typically includes a measurement of normal cell constituents including white blood cells or leukocytes, red blood cells, and platelets. In addition, this test includes a differential count of the white blood cells or “diff” in which the following leukocytes are differentiated and counted automatically: neutrophils or granulocytes, lymphocytes, monocytes, eosinophils, and basophils. Report 85004 when method is automated cell counter. Report 85007 or 85008 when the method is manual testing.

Coding Tips

When a hemogram with manual differential is performed, report CPT codes 85007 and 85027. Do not report CPT code 85007 and/or CPT code 85008 when a manual differential or slide review is performed as a confirmatory test to validate the findings of a complete blood count with automated differential; report CPT code 85025. See the Outpatient Code Editor edits for hematology. To report spinal fluid differentials, assign CPT code 89051. To report other fluids (e.g., cerebrospinal fluid), consult CPT codes 89050 and 89051. To report a nasal smear for eosinophils, assign CPT 89190. A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.15. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

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<th>Fac PE</th>
<th>Malpractice</th>
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</tbody>
</table>
Blood count; manual differential WBC count, buffy coat

Explanation
This test may be ordered as a buffy coat differential or as a differential WBC count, buffy coat. Blood is whole blood. Other collection types (e.g., finger stick or heel stick) do not yield the volume of blood required for this test. Method is manual testing. The whole blood is centrifuged to concentrate the white blood cells, and a manual WBC differential is performed in which the following leukocytes are differentiated: neutrophils or granulocytes, lymphocytes, monocytes, eosinophils, and basophils. This test is usually performed when the number of WBCs or leukocytes is abnormally low and the presence of abnormal white cells (e.g., blasts or cancer cells) is suspected clinically.

Coding Tips
To report eosinophils, nasal smear, consult CPT code 89190. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- eosinopenia. Reduced number of eosinophils (nucleated, granular leukocytes) in the blood. Report this condition with ICD-9-CM code 288.00.
- eosinophilia. Abnormally large accumulation or formation of eosinophils (nucleated, granular leukocytes) in the blood, characteristic of allergic states and infection. Report this condition with ICD-9-CM code 288.3.
- venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
85004
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**85013-85018 - NCD**

**85013** Blood count; spun microhematocrit
**85014** hematocrit (Hct)
**85018** hemoglobin (Hgb)

**Explanation**

Code 85013 may be ordered as a microhematocrit, a spun microhematocrit, or a “spun crit.” Code 85014 may be ordered as a hematocrit, Hmt, or Hct. The specimen is whole blood and for code 85013 is obtained by finger stick or heel stick in infants. The sample is placed in a tube and into a microcentrifuge device. The vials can be read manually against a chart for the volume of packed red cells (VPRC) or a digital reader in the centrifuge device. A spun microhematocrit only reports the volume of packed red cells. It is typically performed at sites where limited testing is available, the patient is a very difficult blood draw, or on infants. For 85014 the hematocrit or VPRC is calculated by multiplying the red blood cell count or RBC times the mean corpuscular volume or MCV. Code 85018 may be ordered as hemoglobin, Hgb, or hemoglobin concentration. The specimen is whole blood. Method is usually automated cell counter but a manual method is seen in labs with a limited test menu and blood bank drawing stations. Hemoglobin is an index of the oxygen-carrying capacity of the blood.

**Coding Tips**

A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.15. These codes may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA waived test. See appendix 1 for CLIA-waived kits and test systems.

**Terms To Know**

**CLIA.** Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

**NCD.** National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>280.0</td>
<td>Iron deficiency anemia secondary to blood loss (chronic)</td>
</tr>
<tr>
<td>280.1</td>
<td>Iron deficiency anemia secondary to inadequate dietary iron intake</td>
</tr>
<tr>
<td>280.8</td>
<td>Other specified iron deficiency anemias</td>
</tr>
<tr>
<td>280.9</td>
<td>Unspecified iron deficiency anemia</td>
</tr>
<tr>
<td>281.0</td>
<td>Pernicious anemia</td>
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<td>281.1</td>
<td>Other vitamin B12 deficiency anemia</td>
</tr>
<tr>
<td>281.2</td>
<td>Folate-deficiency anemia — (Use additional E code to identify drug)</td>
</tr>
<tr>
<td>281.3</td>
<td>Other specified megaloblastic anemias not elsewhere classified</td>
</tr>
<tr>
<td>281.4</td>
<td>Protein-deficiency anemia</td>
</tr>
<tr>
<td>281.8</td>
<td>Anemia associated with other specified nutritional deficiency</td>
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<tr>
<td>281.9</td>
<td>Unspecified deficiency anemia</td>
</tr>
<tr>
<td>282.0</td>
<td>Hereditary spherocytosis</td>
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<tr>
<td>282.1</td>
<td>Hereditary elliptocytosis</td>
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<tr>
<td>282.2</td>
<td>Anemias due to disorders of glutathione metabolism</td>
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<td>282.3</td>
<td>Other hemolytic anemias due to enzyme deficiency</td>
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<tr>
<td>282.7</td>
<td>Other hemoglobinopathies</td>
</tr>
<tr>
<td>283.0</td>
<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
</tr>
<tr>
<td>283.10</td>
<td>Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)</td>
</tr>
<tr>
<td>284.01</td>
<td>Constitutional red blood cell aplasia</td>
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<td>284.11</td>
<td>Antineoplastic chemotherapy induced pancytopenia</td>
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<td>Sideroblastic anemia — (Use additional E code to identify cause, if drug-induced)</td>
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<td>285.1</td>
<td>Acute posthemorrhagic anemia</td>
</tr>
<tr>
<td>285.21</td>
<td>Anemia in chronic kidney disease</td>
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<tr>
<td>285.22</td>
<td>Anemia in neoplastic disease</td>
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<tr>
<td>285.8</td>
<td>Other specified anemias</td>
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<td>285.9</td>
<td>Unspecified anemia</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.15; 100-4,16,70.8

**CCI Version 20.0**

88738✓

Also not with 85014: 85013✓

Also not with 85018: 85008✓

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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85025-85027 - NCD

85025
Blood count; complete (CBC), automated (Hgb, Hct, RBC, WBC and platelet count) and automated differential WBC count

85027
complete (CBC), automated (Hgb, Hct, RBC, WBC and platelet count)

Explanation
This test may be ordered as a complete automated blood count (CBC). The specimen is whole blood. Method is automated cell counter. This code includes the measurement of erythrocytes (red blood cells or RBC), leukocytes (white blood cells or WBC), hemoglobin, hematocrit (volume of packed red blood cells or VP RC), platelet or thrombocyte count, and indices (mean corpuscular hemoglobin or MCH, mean corpusular hemoglobin concentration or MCHC, mean corpuscular volume or MCV, and red cell distribution width or RDW). Code 85025 includes an automated differential of the white blood cells or "diff" in which the following leukocytes are differentiated: neutrophils or granulocytes, lymphocytes, monocytes, eosinophils, and basophils. Report 85027 if the complete CBC, or automated blood count, is done without the differential WBC count.

Coding Tips
A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.15. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
280.0 Iron deficiency anemia secondary to blood loss (chronic)
280.1 Iron deficiency anemia secondary to inadequate dietary iron intake
280.2 Hereditary spherocytosis
280.21 Hereditary elliptocytosis
280.22 Anemias due to disorders of glutathione metabolism
280.7 Other hemoglobinopathies
283.0 Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
283.10 Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
283.19 Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
283.2 Hemoglobinuria due to hemolysis from external causes — (Use additional E code to identify cause)
283.9 Acquired hemolytic anemia, unspecified
284.01 Constitutional red blood cell aplasia
284.09 Other constitutional aplastic anemia
284.11 Antineoplastic chemotherapy induced pancytopenia
284.12 Other drug induced pancytopenia
284.19 Other pancytopenia
285.0 Sideroblastic anemia — (Use additional E code to identify cause, if drug-induced)
285.1 Acute posthemorrhagic anemia
285.21 Anemia in chronic kidney disease
285.22 Anemia in neoplastic disease
285.8 Other specified anemias
285.9 Unspecified anemia
V72.69 Other laboratory examination

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,160.17; 100-3,190.15

CCI Version 20.0
85004, 85013-85018, 85032-85041, 85048-85049, 88738
Also not with 85025: 85007-85009, 85027, G0306-G0307
Also not with 85027: 85008, G0307
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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85032 - NCD

85032  Blood count; manual cell count (erythrocyte, leukocyte, or platelet) each

Explanation
This code reports a manual cell count done for red blood cells (erythrocytes), white blood cells (leukocytes), or platelets (thrombocytes), each. The specimen is whole blood. The method is manual examination and counting.

Coding Tips
A national coverage determination (NCD) applies to these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.15. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
280.0  Iron deficiency anemia secondary to blood loss (chronic)
280.1  Iron deficiency anemia secondary to inadequate dietary iron intake
282.0  Hereditary spherocytosis
282.1  Hereditary elliptocytosis
282.2  Anemias due to disorders of glutathione metabolism
282.3  Other hemolytic anemias due to enzyme deficiency
282.40  Thalassemia, unspecified
282.41  Sickle-cell thalassemia without crisis
282.42  Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.43  Alpha thalassemia
282.44  Beta thalassemia
282.45  Delta-beta thalassemia
282.46  Thalassemia minor
282.47  Hemoglobin E-beta thalassemia
282.49  Other thalassemia
282.5  Sickle-cell trait
282.60  Sickle-cell disease, unspecified
282.61  Hb-SS disease without crisis
282.62  Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.63  Sickle-cell/Hb-C disease without crisis
282.64  Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.68  Other sickle-cell disease without crisis
282.69  Other sickle-cell disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.7  Other hemoglobinopathies
282.8  Other specified hereditary hemolytic anemias
282.9  Unspecified hereditary hemolytic anemia
283.0  Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.10  Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
284.01  Constitutional red blood cell aplasia
284.11  Antineoplastic chemotherapy induced pancytopenia
285.0  Sideroblastic anemia — (Use additional E code to identify cause, if drug-induced)
285.1  Acute posthemorrhagic anemia
285.21  Anemia in chronic kidney disease
285.22  Anemia in neoplastic disease
285.8  Other specified anemias

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3, 190.15

CCI Version 20.0
85008

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85048-85049 - NCD

85048

Blood count; leukocyte (WBC), automated

85049

platelet, automated

Explanation

This test may be ordered as an automated white blood cell or WBC count, white cell count, or leukocyte count for 85048 and as an automated platelet count in 85049. The specimen is whole blood. Method is automated cell counter. In 85048, the population of white blood cells, or WBCs in the blood sample, is counted by machine. Only the number of white blood cells or leukocytes is reported. In 85049, the population of platelets or thrombocytes in the blood sample is counted by machine. Only the number of platelets is reported.

Coding Tips

A national coverage determination (NCD) applies to codes 85048 and 85049. See section 190.15 of Pub. 100-03, Medicare National Coverage Determinations Manual. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

platelet. Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. Synonym(s): thrombocyte.

WBC. White blood count.

ICD-9-CM Diagnostic Codes

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References

100-3,190.15

CCI Version 20.0

85008, 85032

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**85060**

**85060 Blood smear, peripheral, interpretation by physician with written report**

**Explanation**

This test may be ordered as a peripheral blood smear with interpretation by a physician, with a written report. It would usually be ordered following a hemogram with WBC differential where the technologist noted the presence of significant abnormalities and requested a pathology review. Although lacking specificity, peripheral smears also provide a quick and cost-effective screening for the presence of bacteremia. The specimen is whole blood. The method is manual. A blood smear is prepared and reviewed by a physician/pathologist, who submits a written interpretation of the findings.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **venipuncture.** Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>198.5</td>
<td>Secondary malignant neoplasm of bone and bone marrow</td>
</tr>
<tr>
<td>202.01</td>
<td>Nodular lymphoma of lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>202.02</td>
<td>Nodular lymphoma of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>202.03</td>
<td>Nodular lymphoma of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.04</td>
<td>Nodular lymphoma of lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>202.05</td>
<td>Nodular lymphoma of lymph nodes of inguinal region and lower limb</td>
</tr>
<tr>
<td>202.06</td>
<td>Nodular lymphoma of intrapelvic lymph nodes</td>
</tr>
<tr>
<td>202.07</td>
<td>Nodular lymphoma of spleen</td>
</tr>
<tr>
<td>202.10</td>
<td>Mycosis fungoides, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>202.11</td>
<td>Mycosis fungoides of lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>202.12</td>
<td>Mycosis fungoides of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>202.13</td>
<td>Mycosis fungoides of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.32</td>
<td>Malignant histiocytosis of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>202.33</td>
<td>Malignant histiocytosis of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.34</td>
<td>Malignant histiocytosis of lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>202.35</td>
<td>Malignant histiocytosis of lymph nodes of inguinal region and lower limb</td>
</tr>
<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.12</td>
<td>Subacute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.20</td>
<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.00</td>
<td>Acute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>281.0</td>
<td>Pernicious anemia</td>
</tr>
<tr>
<td>281.2</td>
<td>Folate-deficiency anemia — (Use additional E code to identify drug)</td>
</tr>
<tr>
<td>281.4</td>
<td>Protein-deficiency anemia</td>
</tr>
<tr>
<td>282.0</td>
<td>Hereditary spherocytosis</td>
</tr>
<tr>
<td>282.1</td>
<td>Hereditary elliptocytosis</td>
</tr>
<tr>
<td>282.41</td>
<td>Sickle-cell thalassemia without crisis</td>
</tr>
<tr>
<td>282.42</td>
<td>Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, S17.3)</td>
</tr>
<tr>
<td>282.63</td>
<td>Sickle-cell/Hb-C disease without crisis</td>
</tr>
<tr>
<td>282.64</td>
<td>Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, S17.3)</td>
</tr>
<tr>
<td>283.0</td>
<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Procedure Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>85060.............0.45</td>
<td>0.21</td>
</tr>
</tbody>
</table>

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Bone marrow, smear interpretation

Explanation
This test may be ordered as a bone marrow smear interpretation with or without differential cell count. The specimen is by aspiration with a syringe. The bone marrow aspirate may be collected from a variety of sites, including the posterior iliac crest (preferred) and the sternum. The method is manual. Slides or smears are prepared from the aspirate and stained. The slides are reviewed by a physician/pathologist and a written interpretation of the findings is submitted. This report may include a differential count of the white blood cells present.

Coding Tips
This CPT code is reportable by hospitals paid under OPPS and may be used to report evaluation of bone marrow smears. For bone marrow aspiration, biopsy, or bone marrow aspiration with biopsy, see CPT codes 38220 and 38221 and HCPCS code G0364, respectively. For special stains, see 88312 and 88313.

Terms To Know
aspirate. To withdraw fluid or air from a body cavity by suction.

ICD-9-CM Diagnostic Codes
198.5 Secondary malignant neoplasm of bone and bone marrow
203.10 Plasma cell leukemia, without mention of having achieved remission
203.11 Plasma cell leukemia in remission
203.12 Plasma cell leukemia, in relapse
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.01 Acute lymphoid leukemia in remission
204.02 Acute lymphoid leukemia, in relapse
204.80 Other lymphoid leukemia, without mention of having achieved remission
204.81 Other lymphoid leukemia in remission
204.82 Other lymphoid leukemia, in relapse
204.90 Unspecified lymphoid leukemia, without mention of having achieved remission
204.91 Unspecified lymphoid leukemia in remission
204.92 Unspecified lymphoid leukemia, in relapse
205.00 Acute myeloid leukemia, without mention of having achieved remission
205.01 Acute myeloid leukemia in remission
205.02 Acute myeloid leukemia, in relapse
205.80 Other myeloid leukemia, without mention of having achieved remission
205.81 Other myeloid leukemia in remission
206.00 Acute monocytic leukemia, without mention of having achieved remission
206.01 Acute monocytic leukemia in remission
206.02 Acute monocytic leukemia, in relapse
206.80 Other monocytic leukemia, without mention of having achieved remission
206.81 Other monocytic leukemia in remission
206.82 Other monocytic leukemia, in relapse
207.00 Acute erythremia and erythroleukemia, without mention of having achieved remission
207.01 Acute erythremia and erythroleukemia in remission
207.02 Acute erythremia and erythroleukemia, in relapse
208.00 Acute leukemia of unspecified cell type, without mention of having achieved remission
208.01 Acute leukemia of unspecified cell type in remission
208.02 Acute leukemia of unspecified cell type, in relapse
208.80 Other leukemia of unspecified cell type, without mention of having achieved remission
208.81 Other leukemia of unspecified cell type in remission
208.82 Other leukemia of unspecified cell type, in relapse

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**Explanation**
This test may be ordered as a whole blood dilution clot lysis time. The specimen is whole blood. The method is manual. This is a non-specific test of fibrinolytic or clot-lysing activity. The tubes are examined at 24 and 48-hour intervals to assess degeneration of the clots. The test is rarely used today, as there are other specific assays that provide more useable information to the physician.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**
- 286.0 Congenital factor VIII disorder
- 286.1 Congenital factor IX disorder
- 286.2 Congenital factor XI deficiency
- 286.3 Congenital deficiency of other clotting factors
- 286.4 Von Willebrand’s disease
- 286.52 Acquired hemophilia
- 286.53 Antiphospholipid antibody with hemorrhagic disorder
- 286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
- 286.6 Defibrination syndrome
- 286.7 Acquired coagulation factor deficiency — (Use additional E code to identify cause, if drug-induced)
- 286.9 Other and unspecified coagulation defects
- 289.0 Polycythemia, secondary
- 289.4 Hypersplenism
- 289.6 Familial polycythemia
- 289.7 Methemoglobinemia — (Use additional E code to identify cause)
- 289.81 Primary hypercoagulable state
- 289.82 Secondary hypercoagulable state
- 289.89 Other specified diseases of blood and blood-forming organs

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<th>Code</th>
<th>Description</th>
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<td>85175</td>
<td>Clot lysis time, whole blood dilution</td>
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**CCI Version 20.0**
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85210
85210 Clotting; factor II, prothrombin, specific

Explanation
This test may be ordered as a factor II, clotting factor II, or a prothrombin factor assay. The specimen is plasma. The method is usually automated coagulation instrument but may be manual. This factor is one of several essential to clot formation. A decreased amount of this factor may be associated with clotting impairment.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.01 Acute lymphoid leukemia in remission
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
204.11 Chronic lymphoid leukemia in remission
204.20 Subacute lymphoid leukemia, without mention of having achieved remission
204.21 Subacute lymphoid leukemia in remission
204.80 Other lymphoid leukemia, without mention of having achieved remission
204.81 Other lymphoid leukemia in remission
281.0 Pernicious anemia
281.2 Folate-deficiency anemia — (Use additional E code to identify drug)
281.4 Protein-deficiency anemia
282.0 Hereditary spherocytosis
282.1 Hereditary elliptocytosis
282.2 Anemias due to disorders of glutathione metabolism
282.41 Sickle-cell thalassemia without crisis
282.42 Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.61 Hb-SS disease without crisis
282.62 Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.11 Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 418)
284.01 Constitutional red blood cell aplasia
284.81 Red cell aplasia (acquired) (adult) (with thymoma)
285.0 Sideroblastic anemia — (Use additional E code to identify cause, if drug-induced)
286.0 Congenital factor VIII disorder
286.3 Congenital deficiency of other clotting factors
286.4 Von Willebrand's disease
286.52 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
286.6 Defibrination syndrome
286.7 Acquired coagulation factor deficiency — (Use additional E code to identify cause, if drug-induced)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
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<th>Work Value</th>
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<th>Malpractice</th>
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</tbody>
</table>

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**85220**  

85220 Clotting: factor V (AcG or proaccelerin), labile factor  

**Explanation**  
This test may be ordered as a factor V, clotting factor V, or labile factor assay. It may be ordered as a proaccelerin assay or an AcG factor assay. The specimen is plasma. The method is usually automated coagulation instrument, but may be manual. This factor is one of several essential to clot formation. A decreased amount of this factor may be associated with blood clotting disorders.  

**Coding Tips**  
Verify the type of clotting factor being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.  

**Terms To Know**  
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.  

**ICD-9-CM Diagnostic Codes**  

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201.40</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>201.41</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>201.42</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>201.43</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>201.44</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>201.45</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of inguinal region and lower limb</td>
</tr>
<tr>
<td>201.47</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of spleen</td>
</tr>
<tr>
<td>201.48</td>
<td>Hodgkin's disease, lymphocytic-histiocytic predominance of lymph nodes of multiple sites</td>
</tr>
<tr>
<td>201.50</td>
<td>Hodgkin's disease, nodular sclerosis, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>201.51</td>
<td>Hodgkin's disease, nodular sclerosis, of lymph nodes of head, face, and neck</td>
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<tr>
<td>201.52</td>
<td>Hodgkin's disease, nodular sclerosis, of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>201.53</td>
<td>Hodgkin's disease, nodular sclerosis, of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>201.54</td>
<td>Hodgkin's disease, nodular sclerosis, of lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>201.55</td>
<td>Hodgkin's disease, nodular sclerosis, of lymph nodes of inguinal region and lower limb</td>
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<td>201.57</td>
<td>Hodgkin's disease, nodular sclerosis, of spleen</td>
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<td>201.58</td>
<td>Hodgkin's disease, nodular sclerosis, of lymph nodes of multiple sites</td>
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<td>201.60</td>
<td>Hodgkin's disease, mixed cellularity, unspecified site, extranodal and solid organ sites</td>
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<tr>
<td>201.61</td>
<td>Hodgkin's disease, mixed cellularity, involving lymph nodes of head, face, and neck</td>
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<tr>
<td>201.62</td>
<td>Hodgkin's disease, mixed cellularity, of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>280.0</td>
<td>Iron deficiency anemia secondary to blood loss (chronic)</td>
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<td>280.1</td>
<td>Iron deficiency anemia secondary to inadequate dietary iron intake</td>
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<td>Other vitamin B12 deficiency anemia</td>
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<td>281.2</td>
<td>Folate-deficiency anemia — (Use additional E code to identify drug)</td>
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<tr>
<td>281.3</td>
<td>Other specified megaloblastic anemias not elsewhere classified</td>
</tr>
<tr>
<td>281.4</td>
<td>Protein-deficiency anemia</td>
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<tr>
<td>281.8</td>
<td>Anemia associated with other specified nutritional deficiency</td>
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<tr>
<td>281.9</td>
<td>Unspecified deficiency anemia</td>
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<tr>
<td>286.0</td>
<td>Congenital factor VIII disorder</td>
</tr>
<tr>
<td>286.3</td>
<td>Congenital deficiency of other clotting factors</td>
</tr>
<tr>
<td>286.4</td>
<td>Von Willebrand's disease</td>
</tr>
<tr>
<td>286.52</td>
<td>Acquired hemophilia</td>
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<tr>
<td>286.53</td>
<td>Antiphospholipid antibody with hemorrhagic disorder</td>
</tr>
<tr>
<td>286.59</td>
<td>Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors</td>
</tr>
<tr>
<td>286.9</td>
<td>Other and unspecified coagulation defects</td>
</tr>
<tr>
<td>790.92</td>
<td>Abnormal coagulation profile</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.  

**CCI Version 20.0**  
80500-80502  
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85230

Clotting: factor VII (proconvertin, stable factor)

Explanation
This test may be ordered as a factor VII assay, stable factor assay, or clotting factor VII assay. It may also be ordered as a proconvertin assay. The specimen is plasma. The method is usually automated coagulation instrument, but may be manual. This factor is one of several essential to clot formation. A decreased amount of this factor may be associated with blood clotting disorders.

Coding Tips
Verify the type of clotting factor being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>206.00</td>
<td>Acute monocytic leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>206.01</td>
<td>Acute monocytic leukemia in remission</td>
</tr>
<tr>
<td>206.02</td>
<td>Acute monocytic leukemia, in relapse</td>
</tr>
<tr>
<td>206.10</td>
<td>Chronic monocytic leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>206.11</td>
<td>Chronic monocytic leukemia in remission</td>
</tr>
<tr>
<td>206.12</td>
<td>Chronic monocytic leukemia, in relapse</td>
</tr>
<tr>
<td>206.20</td>
<td>Subacute monocytic leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>206.21</td>
<td>Subacute monocytic leukemia in remission</td>
</tr>
<tr>
<td>206.22</td>
<td>Subacute monocytic leukemia, in relapse</td>
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<tr>
<td>206.80</td>
<td>Other monocytic leukemia, without mention of having achieved remission</td>
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<td>Other monocytic leukemia in remission</td>
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<td>206.82</td>
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<td>Acute erythremia and erythroleukemia, without mention of having achieved remission</td>
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<td>207.01</td>
<td>Acute erythremia and erythroleukemia in remission</td>
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<td>207.02</td>
<td>Acute erythremia and erythroleukemia, in relapse</td>
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<td>Chronic erythremia, without mention of having achieved remission</td>
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<td>207.12</td>
<td>Chronic erythremia, in relapse</td>
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<td>281.8</td>
<td>Anemia associated with other specified nutritional deficiency</td>
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<td>Sickle-cell thalassemia without crisis</td>
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<td>282.42</td>
<td>Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)</td>
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<td>284.01</td>
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<td>Red cell aplasia (acquired) (adult) (with thymoma)</td>
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<td>286.4</td>
<td>Von Willebrand's disease</td>
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<tr>
<td>286.52</td>
<td>Acquired hemophilia</td>
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<tr>
<td>286.53</td>
<td>Antiphospholipid antibody with hemorrhagic disorder</td>
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<td>286.59</td>
<td>Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors</td>
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<td>286.7</td>
<td>Acquired coagulation factor deficiency — (Use additional E code to identify cause, if drug-induced)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85240

85240 Clotting; factor VIII (AHG), 1-stage

Explanation
This test may be ordered as a factor VIII assay, AHF, or an anti-hemophilic globulin or AHG assay. The specimen is plasma. The method is automated coagulation instrument, but may be manual. This factor is one of a number of factors essential for clot formation. A decreased amount or absence may be associated with blood clotting disorders (i.e., hemophilia A). This test is essentially an assay for the presence and quantity of the AHG.

Coding Tips
Verify the type of clotting factor being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hemophilia A. Abnormal coagulation characterized by increased bleeding; large skin bruises; bleeding in the mouth, nose, or gastrointestinal tract; and hemorrhages into joints, resulting in swelling and impaired function. This is a hereditary, sex-linked disease in which the patient is missing antihemophilic globulin (AHG) (factor VIII). Report hemophilia A with ICD-9-CM code 286.0 or ICD-10-CM code D66.

ICD-9-CM Diagnostic Codes
246.3 Hemorrhage and infarction of thyroid
285.1 Acute posthemorrhagic anemia
286.0 Congenital factor VIII disorder
286.52 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
287.8 Other specified hemorrhagic conditions
364.41 Hyphema
430 Subarachnoid hemorrhage — (Use additional code to identify presence of hypertension)
431 Intracerebral hemorrhage — (Use additional code to identify presence of hypertension)
432.0 Nontraumatic extradural hemorrhage — (Use additional code to identify presence of hypertension)
432.1 Subdural hemorrhage — (Use additional code to identify presence of hypertension)

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ICD-9-CM Diagnostic Codes

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

85240 Clotting; factor VIII (AHG), 1-stage

Explanation
This test may be ordered as a factor VIII assay, AHF, or an anti-hemophilic globulin or AHG assay. The specimen is plasma. The method is automated coagulation instrument, but may be manual. This factor is one of a number of factors essential for clot formation. A decreased amount or absence may be associated with blood clotting disorders (i.e., hemophilia A). This test is essentially an assay for the presence and quantity of the AHG.

Coding Tips
Verify the type of clotting factor being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hemophilia A. Abnormal coagulation characterized by increased bleeding; large skin bruises; bleeding in the mouth, nose, or gastrointestinal tract; and hemorrhages into joints, resulting in swelling and impaired function. This is a hereditary, sex-linked disease in which the patient is missing antihemophilic globulin (AHG) (factor VIII). Report hemophilia A with ICD-9-CM code 286.0 or ICD-10-CM code D66.

ICD-9-CM Diagnostic Codes
246.3 Hemorrhage and infarction of thyroid
285.1 Acute posthemorrhagic anemia
286.0 Congenital factor VIII disorder
286.52 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
287.8 Other specified hemorrhagic conditions
364.41 Hyphema
430 Subarachnoid hemorrhage — (Use additional code to identify presence of hypertension)
431 Intracerebral hemorrhage — (Use additional code to identify presence of hypertension)
432.0 Nontraumatic extradural hemorrhage — (Use additional code to identify presence of hypertension)
432.1 Subdural hemorrhage — (Use additional code to identify presence of hypertension)

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ICD-9-CM Diagnostic Codes

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85244
85244 Clotting; factor VIII related antigen

Explanation
This test may be ordered as factor VIII related antigen or VIIIR: Ag. The specimen is plasma. The method is automated coagulation instrument, but may be manual. The presence of Factor VIII related antigen is associated with carriers of the bleeding disorder hemophilia. The test may be useful for the detection of carriers of hemophilia A and in prenatal diagnoses.

Coding Tips
Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hemophilia A. Abnormal coagulation characterized by increased bleeding; large skin bruises; bleeding in the mouth, nose, or gastrointestinal tract; and hemorrhages into joints, resulting in swelling and impaired function. This is a hereditary, sex-linked disease in which the patient is missing antihemophilic globulin (AHG) (factor VIII). Report hemophilia A with ICD-9-CM code 286.0 or ICD-10-CM code D66.

ICD-9-CM Diagnostic Codes
246.3 Hemorrhage and infarction of thyroid
260.0 Iron deficiency anemia secondary to blood loss (chronic)
285.1 Acute posthemorrhagic anemia
286.0 Congenital factor VIII disorder
286.4 Von Willebrand's disease
286.5 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
287.8 Other specified hemorrhagic conditions
364.41 Hyphema
430 Subarachnoid hemorrhage — (Use additional code to identify presence of hypertension)
431 Intracerebral hemorrhage — (Use additional code to identify presence of hypertension)
432.0 Nontraumatic extradural hemorrhage — (Use additional code to identify presence of hypertension)

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ICC Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Clotting: factor VIII, VW factor, ristocetin cofactor

**Explanation**

This test may be ordered as a ristocetin cofactor, VIIR:Rco, or Von Willebrand factor ristocetin cofactor. The specimen is plasma. The method is automated coagulation instrument, but may be manual. This test measures platelet aggregation in response to introduction of ristocetin into the tube. The resulting level of ristocetin cofactor may be interpreted to assess the function of the Von Willebrand Factor, which may be indicative of the presence of Von Willebrand's disease and the variant or type of the disorder.

**Coding Tips**

Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*von Willebrand's disease.* Congenital disease marked by abnormal blood coagulation caused by deficient blood factor VII. Symptoms include excess or prolonged bleeding. Report this disorder with ICD-9-CM code 286.4.

**ICD-9-CM Diagnostic Codes**

- 246.3 Hemorrhage and infarction of thyroid
- 285.1 Acute posthemorrhagic anemia
- 286.0 Congenital factor VIII disorder
- 286.4 Von Willebrand's disease
- 286.52 Acquired hemophilia
- 286.53 Antiphospholipid antibody with hemorrhagic disorder
- 286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
- 287.8 Other specified hemorrhagic conditions
- 364.41 Hyphema
- 430 Subarachnoid hemorrhage — (Use additional code to identify presence of hypertension)
- 431 Intracerebral hemorrhage — (Use additional code to identify presence of hypertension)
- 432.0 Nontraumatic extradural hemorrhage — (Use additional code to identify presence of hypertension)
- 432.1 Subdural hemorrhage — (Use additional code to identify presence of hypertension)
- 568.81 Hemoperitoneum (nontraumatic)

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<tr>
<th>Code</th>
<th>Description</th>
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<td>85245</td>
<td>Clotting: factor VIII, VW factor, ristocetin cofactor</td>
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<th>Procedure Codes</th>
<th>Coding and Payment Guide for Laboratory Services</th>
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<tbody>
<tr>
<td>641.13</td>
<td>Hemorrhage from placenta previa, antepartum</td>
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<tr>
<td>641.21</td>
<td>Premature separation of placenta, with delivery</td>
</tr>
<tr>
<td>641.23</td>
<td>Premature separation of placenta, antepartum</td>
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<td>641.30</td>
<td>Antepartum hemorrhage associated with coagulation defects, unspecified as to episode of care</td>
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<td>641.31</td>
<td>Antepartum hemorrhage associated with coagulation defects, with delivery</td>
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<td>666.30</td>
<td>Postpartum coagulation defects, unspecified as to episode of care</td>
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<td>Postpartum coagulation defects, with delivery</td>
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<td>772.10</td>
<td>Intraventricular hemorrhage, unspecified grade — (Use additional code(s) to further specify condition)</td>
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<td>772.11</td>
<td>Intraventricular hemorrhage, Grade I — (Use additional code(s) to further specify condition)</td>
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<td>Intraventricular hemorrhage, Grade III — (Use additional code(s) to further specify condition)</td>
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<td>Intraventricular hemorrhage, Grade IV — (Use additional code(s) to further specify condition)</td>
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<td>776.0</td>
<td>Hemorrhagic disease of newborn — (Use additional code(s) to further specify condition)</td>
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<tr>
<td>784.7</td>
<td>Epistaxis</td>
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<tr>
<td>786.31</td>
<td>Acute idiopathic pulmonary hemorrhage in infants [AIPH]</td>
</tr>
<tr>
<td>790.92</td>
<td>Abnormal coagulation profile</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Clotting; factor VIII, VW factor antigen

**Explanation**

Code 85246 may be ordered as factor VIII related antigen, VIII:Ag, Von Willebrand factor or vWF, or Von Willebrand factor antigen vWF:Ag. The method is automated coagulation instrument, but may be manual. Code 85247 may be ordered as factor VIII assay with multimeric analysis of von Willebrand factor, or vWF:Ag multimeric analysis. Code 85247 uses a agarose gel electrophoresis. The specimen is plasma for either test. A deficiency or low level of Von Willebrand factor antigen is associated with Von Willebrand's disease (a bleeding disorder). A diminished VW factor antigen with reduced function of VW factor can lead to a diagnosis of a variant of Von Willebrand's known as Type I. An absence of VW factor antigen, with undetectable function of VW factor, can lead to a diagnosis of a variant of Von Willebrand's known as Type III.

**Coding Tips**

Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**von Willebrand's disease.** Congenital disease marked by abnormal blood coagulation caused by deficient blood factor VII. Symptoms include excess or prolonged bleeding. Report this disorder with ICD-9-CM code 286.4.

**ICD-9-CM Diagnostic Codes**

- 246.3 Hemorrhage and infarction of thyroid
- 285.1 Acute posthemorrhagic anemia
- 286.0 Congenital factor VIII disorder
- 286.52 Acquired hemophilia
- 286.53 Antiphospholipid antibody with hemorrhagic disorder
- 286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
- 364.41 Hyphema
- 430 Subarachnoid hemorrhage — (Use additional code to identify presence of hypertension)
- 431 Intracerebral hemorrhage — (Use additional code to identify presence of hypertension)

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85250

85250  Clotting: factor IX (PTC or Christmas)

Explanation
This test may be ordered as a factor IX assay, a PTC assay, or a Christmas disease assay. The specimen is plasma. The method is automated coagulation instrument, but may be manual. This factor is one of a number of factors essential to clot formation. A decreased amount of this factor may be associated with a form of homeostasis disorder. A factor IX deficiency is the second most common clotting factor deficiency that results in a variant of hemophilia known by the suffix B or simply Christmas disease.

Coding Tips
Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
assay. Test of purity.
Christmas disease. Second most common form of hemophilia, a hereditary blood disorder in which the clotting properties are affected. Christmas disease almost always occurs in males, caused by a coagulation factor IX deficiency. Symptoms include prolonged or spontaneous bleeding, ecchymosis, hematuria, and muscular and joint pain and swelling. Report this disorder with ICD-9-CM code 286.1. Synonym(s): hemophilia B.
factor IX. Blood derivative of normal plasma that can be provided via recombinant DNA therapy to replace the patient’s deficient clotting factor IX to treat Hemophilia B or Christmas disease. It is provided via IV infusion. Supply is reported with HCPCS Level II codes J7193, J7194, and J7195. May be sold under the brand names Alphamine, Bebulin VH Immuno, Benefix, Konyne 80, Monoline, Proline SD, Proplex T.
hemophilia B. Second most common form of hemophilia, a hereditary blood disorder in which the clotting properties are affected. Christmas disease almost always occurs in males, caused by a coagulation factor IX deficiency. Symptoms include prolonged or spontaneous bleeding, ecchymosis, hematuria, and muscular and joint pain and swelling. Report this disorder with ICD-9-CM code 286.1 or ICD-10-CM code D67. Synonym(s): Christmas disease.

ICD-9-CM Diagnostic Codes
282.60  Sickle-cell disease, unspecified
282.61  Hb-SS disease without crisis
282.62  Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.63  Sickle-cell/Hb-C disease without crisis
282.8  Other specified hereditary hemolytic anemias
282.9  Unspecified hereditary hemolytic anemia
283.0  Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.10  Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
283.11  Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
283.19  Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
286.1  Congenital factor IX disorder
286.2  Congenital factor XI deficiency
286.3  Congenital deficiency of other clotting factors
790.92  Abnormal coagulation profile

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85260 Clotting; factor X (Stuart-Prower)

Explanation
This test may be ordered as a factor X assay or rarely as a Stuart-Prower assay. The specimen is plasma. The method is automated coagulation instrument but may be manual. This factor is one of a number of factors essential for clot formation. A decreased amount of this factor may be associated with a systemic coagulation disorder known as Factor X deficiency.

Coding Tips
Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coagulation. Clot formation.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
201.00 Hodgkin's paragranuloma, unspecified site, extranodal and solid organ sites
201.10 Hodgkin's granuloma, unspecified site, extranodal and solid organ sites
201.20 Hodgkin's sarcoma, unspecified site, extranodal and solid organ sites
201.40 Hodgkin's disease, lymphocytic-histiocytic predominance, unspecified site, extranodal and solid organ sites
201.50 Hodgkin's disease, nodular sclerosis, unspecified site, extranodal and solid organ sites
201.60 Hodgkin's disease, mixed cellularity, unspecified site, extranodal and solid organ sites
201.70 Hodgkin's disease, lymphocytic depletion, unspecified site, extranodal and solid organ sites
201.90 Hodgkin's disease, unspecified type, unspecified site, extranodal and solid organ sites
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.20 Subacute lymphoid leukemia, without mention of having achieved remission
204.80 Other lymphoid leukemia, without mention of having achieved remission
204.90 Unspecified lymphoid leukemia, without mention of having achieved remission
205.00 Acute myeloid leukemia, without mention of having achieved remission
205.10 Chronic myeloid leukemia, without mention of having achieved remission
286.3 Congenital deficiency of other clotting factors
790.92 Abnormal coagulation profile

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Explaination
This test may be ordered as a factor XI assay or as a PTA assay or antihemophilic C assay. The specimen is plasma. The method is automated coagulation instrument, but may be manual. This factor is one of a number of factors essential for clot formation. A decreased amount of this factor XI may be associated with systemic blood clotting disorder known as Hemophilia C.

Coding Tips
Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coagulation. Clot formation.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.10 Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
283.11 Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
283.19 Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
283.9 Acquired hemolytic anemia, unspecified
284.01 Constitutional red blood cell aplasia
284.09 Other constitutional aplastic anemia
286.1 Congenital factor IX disorder
286.2 Congenital factor XI deficiency
286.3 Congenital deficiency of other clotting factors
790.92 Abnormal coagulation profile
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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**85291**

**Clotting; factor XIII (fibrin stabilizing), screen solubility**

**Explanation**
This test may be ordered as a factor XIII solubility screen or a fibrin stabilizing factor solubility screen. The specimen is plasma. The method is manual. This factor is one of a number of factors involved in clot formation. A decreased amount of this factor may be associated with clot dissolution and bleeding problems. This code does not measure the amount of factor XIII antigen but is a measure of factor XIII function.

**Coding Tips**
Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **fibrin**: Main fibrous composition of blood clots.
- **plasma**: Liquid portion of the blood, lymph, or milk.
- **venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

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<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
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<td>Acute erythremia and erythroleukemia, without mention of having achieved remission</td>
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**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**85300-85301**

**85300** Clotting inhibitors or anticoagulants; antithrombin III, activity

**85301** antithrombin III, antigen assay

**Explanation**

Code 85300 may be ordered as an antithrombin III activity assay, an AT-III functional assay, or as a functional antithrombin III assay. A decrease in antithrombin III function or activity is associated with thrombosis or episodes of abnormal clot formation. For code 85301 the test may be ordered as an antithrombin III antigen assay, an immunological antithrombin III assay, or an AT-III antigen assay. The method is automated coagulation instrument but may be manual. Levels of antithrombin III antigen may be normal even though the antithrombin III activity is decreased, see 85300. Deficiencies of this antigen are associated with thrombosis or episodes of abnormal clot formation. The specimen is plasma for either test. The method is automated coagulation instrument but may be manual.

**Coding Tips**

Verify which clotting factor is being tested. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-6406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, see codes 36400-6406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, see codes 36400-6406. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**

273.8 Other disorders of plasma protein metabolism — (Use additional code to identify any associated intellectual disabilities)

286.6 Defibrination syndrome

289.81 Primary hypercoagulable state

415.11 Iatrogenic pulmonary embolism and infarction — (Use additional code for associated septic pulmonary embolism, if applicable: 415.12)

415.12 Septic pulmonary embolism

415.13 Saddle embolus of pulmonary artery

415.19 Other pulmonary embolism and infarction

415.0 Phlebitis and thrombophlebitis of superficial vessels of lower extremities — (Use additional E code to identify drug, if drug-induced)

451.19 Phlebitis and thrombophlebitis of other deep vessels of lower extremities — (Use additional E code to identify drug, if drug-induced)

451.2 Phlebitis and thrombophlebitis of lower extremities, unspecified — (Use additional E code to identify drug, if drug-induced)

451.81 Phlebitis and thrombophlebitis of iliac vein — (Use additional E code to identify drug, if drug-induced)

451.82 Phlebitis and thrombophlebitis of superficial veins of upper extremities — (Use additional E code to identify drug, if drug-induced)

451.83 Phlebitis and thrombophlebitis of deep veins of upper extremities — (Use additional E code to identify drug, if drug-induced)

451.84 Phlebitis and thrombophlebitis of upper extremities, unspecified — (Use additional E code to identify drug, if drug-induced)

453.0 Budd-Chiari syndrome

453.1 Thrombophlebitis migrans

453.40 Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity

453.50 Chronic venous embolism and thrombosis of unspecified deep vessels of lower extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))

453.79 Chronic venous embolism and thrombosis of other specified veins — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))

453.83 Acute venous embolism and thrombosis of upper extremity, unspecified

776.2 Disseminated intravascular coagulation in newborn — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory CrossCoder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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85345-85348
85345 Coagulation time; Lee and White
85347 activated
85348 other methods

Explaination
These tests are used to determine clotting times. Code 85345 may be ordered as a clotting time, a whole blood clotting time, or a Lee-White clotting time. Code 83547 may be ordered as an activated clotting time, an activated whole blood clotting time, or an activated Lee-White clotting time. Code 85348 may be ordered as a clotting time. The specimen is whole blood for each test. The method is manual for codes 83545 and 83547 but as implied in the description can vary for code 85348. The Lee-White clotting time measures the ability of blood to clot and is performed at the patient's bedside to monitor anti-coagulant therapy such as heparin, warfarin, or coumadin. The activated clotting time (83547) measures the ability of blood to clot and is a precursor to the activated partial thromboplastin time (85730), or PTT. Point-of-care testing often involves a hand held instrument that gives some measurement of whole blood clotting time.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coagulation, Clot formation.

ICD-9-CM Diagnostic Codes
280.0 Iron deficiency anemia secondary to blood loss (chronic)
280.1 Iron deficiency anemia secondary to inadequate dietary iron intake
280.8 Other specified iron deficiency anemias
280.9 Unspecified iron deficiency anemia
281.0 Pernicious anemia
281.1 Other vitamin B12 deficiency anemia
281.2 Folate-deficiency anemia — (Use additional E code to identify drug)
281.3 Other specified megaloblastic anemias not elsewhere classified
281.4 Protein-deficiency anemia
281.8 Anemia associated with other specified nutritional deficiency
Fibrin degradation products, D-dimer; qualitative or semiquantitative

Quantitative

Explanation
These tests may be ordered as D-dimer, latex agglutination, or slide D-dimer, semi-quantitative or qualitative. The specimen is plasma. The degradation products of fibrinogen have characteristic biological properties, including the inhibition of clotting. Code 85378 is a semi-quantitative or qualitative measure of two degradation fragments known as the D-dimer. The method typically includes latex agglutination, specific antisera. Code 85379 is a quantitative measure using enzyme-linked immunosorbent assay (ELISA).

Coding Tips
Code 85379 may be used to report ultrasensitive and standard sensitivity quantitative D-dimer.

ICD-9-CM Diagnostic Codes
286.6 Defibrination syndrome
410.92 Acute myocardial infarction, unspecified site, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)
415.11 Iatrogenic pulmonary embolism and infarction — (Use additional code for associated septic pulmonary embolism, if applicable: 415.12)
415.12 Septic pulmonary embolism
451.0 Phlebitis and thrombophlebitis of superficial vessels of lower extremities — (Use additional E code to identify drug, if drug-induced)
451.11 Phlebitis and thrombophlebitis of femoral vein (deep) (superficial) — (Use additional E code to identify drug, if drug-induced)
451.19 Phlebitis and thrombophlebitis of other deep vessels of lower extremities — (Use additional E code to identify drug, if drug-induced)
451.2 Phlebitis and thrombophlebitis of lower extremities, unspecified — (Use additional E code to identify drug, if drug-induced)
451.82 Phlebitis and thrombophlebitis of superficial veins of upper extremities — (Use additional E code to identify drug, if drug-induced)
451.83 Phlebitis and thrombophlebitis of deep veins of upper extremities — (Use additional E code to identify drug, if drug-induced)
451.84 Phlebitis and thrombophlebitis of upper extremities, unspecified — (Use additional E code to identify drug, if drug-induced)
452 Portal vein thrombosis
453.0 Budd-Chiari syndrome
453.1 Thrombophlebitis migrans
453.40 Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity
453.50 Chronic venous embolism and thrombosis of unspecified deep vessels of lower extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V86.61))
453.6 Venous embolism and thrombosis of superficial vessels of lower extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V86.61))
453.73 Chronic venous embolism and thrombosis of upper extremity, unspecified — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V86.61))
453.81 Acute venous embolism and thrombosis of superficial veins of upper extremity
453.82 Acute venous embolism and thrombosis of deep veins of upper extremity
453.83 Acute venous embolism and thrombosis of upper extremity, unspecified
453.84 Acute venous embolism and thrombosis of axillary veins
453.85 Acute venous embolism and thrombosis of subclavian veins
453.86 Acute venous embolism and thrombosis of internal jugular veins
453.87 Acute venous embolism and thrombosis of other thoracic veins
776.2 Disseminated intravascular coagulation in newborn — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Coagulation and fibrinolysis, functional activity, not otherwise specified (eg, ADAMTS-13), each analyte

Explanation
This test is used to measure the functional activity of ADAMTS-13, an enzyme whose malfunction may lead to thrombotic thrombocytopenic purpura (TTP) or other thrombocytopenic conditions. It also measures the functional activity of other proteases and proteins involved in coagulation and fibrinolysis for which there are no more specific codes. Specimen is plasma and test method is enzyme-linked immunosorbent assay (ELISA) or fluorescence energy transfer (FRET). Report 85397 for each analyte tested.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hemolytic-uremic syndrome. Enlargement of the liver and spleen and many erythroblasts in circulation. Report this disorder with ICD-9-CM code 283.11 or ICD-10-CM code D59.3.

thrombocytopenic purpura. Bleeding into the skin as a result of reduced blood platelets and/or extended bleeding.

ICD-9-CM Diagnostic Codes
286.0 Congenital factor VIII disorder
286.1 Congenital factor IX disorder
286.2 Congenital factor XI deficiency
286.3 Congenital deficiency of other clotting factors
286.4 Von Willebrand's disease
286.52 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
286.6 Defibrination syndrome
286.7 Acquired coagulation factor deficiency — (Use additional E code to identify cause, if drug-induced)
286.9 Other and unspecified coagulation defects
287.30 Primary thrombocytopenia, unspecified
287.31 Immune thrombocytopenic purpura
287.32 Evans' syndrome
287.33 Congenital and hereditary thrombocytopenic purpura

85397 Coagulation and fibrinolysis, functional activity, not otherwise specified (eg, ADAMTS-13), each analyte

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CCI Version 20.0
No CCI Edits apply to this code.
85415-85421

Explanation
Code 85415 may be ordered as plasminogen activator or plasminogen activator inhibitor (PAI) and uses the chromogenic substrate or enzyme linked immunosorbent assay methodology. Code 85420 may be ordered as plasminogen level, functional plasminogen, or plasminogen activity and uses chromogenic substrate methodology. Code 85421 may be ordered as plasminogen antigen level. The method is radial immunodiffusion. All three tests use plasma as a specimen. Increased plasminogen antigen levels may be present during fibrinolytic or clot dissolving activity, intrauterine death, and some metastatic cancers.

Coding Tips
When reporting fragility, red blood cell, see codes 85547 and 85555-85557. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
intrauterine death. Fetal death after 22 weeks of gestation. Report ICD-9-CM code 656.4X with the appropriate fifth digit (0, 1, or 3) to indicate the episode of care.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
plasma. Liquid portion of the blood, lymph, or milk.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

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85441-85445

85441  Heinz bodies; direct
85445  induced, acetyl phenylhydrazine

Explanation
Test 85441 may be ordered as a Heinz body stain, or direct Heinz body stain. Test 85445 may be ordered as an induced Heinz body stain. Heinz bodies are anomalous intracellular erythrocytic (red blood cell) inclusions, composed of denatured hemoglobin that attach to the cell membrane. The specimen is whole blood or finger stick in adults, or heel stick in infants. The method is phase microscopy or supravital stain (e.g., methyl violet, crystal violet, and brilliant cresyl blue, new methylene blue). A blood sample is treated with a chemical (usually acetyl phenylhydrazine) and a blood smear is prepared and examined for the presence of Heinz bodies in the red blood cells. This test may be necessary to identify patients with certain types of unstable blood hemoglobin disorders. Elevated numbers of Heinz bodies are found following exposure to certain drugs and toxic chemicals, some enzyme deficiencies, and as a result of inherited disorders of blood hemoglobin.

Coding Tips
To report hematocrit (PCV) consult codes 85014, 85025, and 85027. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
hemoglobin. Oxygen-carrying component of the red blood cell.

ICD-9-CM Diagnostic Codes
282.2  Anemias due to disorders of glutathione metabolism
282.40  Thalassemia, unspecified
282.41  Sickle-cell thalassemia without crisis
282.42  Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.43  Alpha thalassemia
282.44  Beta thalassemia
282.45  Delta-beta thalassemia
282.46  Thalassemia minor
282.47  Hemoglobin E-beta thalassemia
282.49  Other thalassemia
283.2  Hemoglobinuria due to hemolysis from external causes — (Use additional E code to identify cause)
283.9  Acquired hemolytic anemia, unspecified

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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80500-80502

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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376
Heparin assay

Explanation
This test may be ordered as a heparin assay, a quantitative heparin analysis, or as a heparin level. The specimen is plasma. The method is chromogenic assay. This test measures the amount of heparin in a patient’s blood and is usually ordered when the patient is on low-dose heparin therapy.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
assay. Test of purity.
embolism. Obstruction of a blood vessel resulting from a clot or foreign substance.
heparin sodium. Anticoagulant that decreases the blood’s clotting ability by accelerating the formation of antithrombin III-thrombin complex and is frequently used for keeping heparin locks patent and preventing deep vein thrombosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.
von Willebrand’s disease. Congenital disease marked by abnormal blood coagulation caused by deficient blood factor VIII. Symptoms include excess or prolonged bleeding. Report this disorder with ICD-9-CM code 286.4.

ICD-9-CM Diagnostic Codes
286.0 Congenital factor VIII disorder
286.1 Congenital factor IX disorder
286.2 Congenital factor XI deficiency
286.3 Congenital deficiency of other clotting factors
286.4 Von Willebrand’s disease
286.52 Acquired hemophilia
286.53 Antiphospholipid antibody with hemorrhagic disorder
286.59 Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors
286.6 Defibrination syndrome
286.7 Acquired coagulation factor deficiency — (Use additional E code to identify cause, if drug-induced)
286.9 Other and unspecified coagulation defects

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Leukocyte alkaline phosphatase with count

Explanation
This test may be ordered as a leukocyte alkaline phosphatase test (LAP), LAP score. The specimen is whole blood. The method is enzyme reaction with leukocyte alkaline phosphatase liberating naphthol, which is manually stained. Smears from freshly collected whole blood are prepared, stained, and examined microscopically. One hundred cells are counted and phosphatase activity scores (0 to 4+) totalled. The amount of leukocyte alkaline phosphatase present aids in the differential diagnosis of various leukemias.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

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<tbody>
<tr>
<td>203.10</td>
<td>Plasma cell leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>203.11</td>
<td>Plasma cell leukemia in remission</td>
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<tr>
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<td>Plasma cell leukemia, in relapse</td>
</tr>
<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
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<tr>
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<tr>
<td>204.21</td>
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<tr>
<td>204.22</td>
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<td>205.10</td>
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<tr>
<td>205.20</td>
<td>Subacute myeloid leukemia, without mention of having achieved remission</td>
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<td>205.22</td>
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</tr>
<tr>
<td>205.30</td>
<td>Myeloid sarcoma, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.31</td>
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<td>205.32</td>
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<td>205.80</td>
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<td>205.81</td>
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<td>206.22</td>
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<tr>
<td>206.70</td>
<td>Acute erythremia and erythroleukemia, without mention of having achieved remission</td>
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<td>206.72</td>
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CCI Version 20.0

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85549

85549  Muramidase

Explanation
This test may be ordered as a muramidase test, a myelomonocytic lysozyme test, or as a malignant lymphoma lysozyme test. The specimen is serum, bone marrow aspirate or 24-hour urine specimen. The method is flow cytometry, gel diffusion assay, radioimmunoassay or enzymatic. The presence of this protein aids in the differential diagnosis of certain leukemias and lymphomas.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
<th>Diagnosis</th>
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<td>Tuberculosis of kidney, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 583.81, 590.81)</td>
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<td>Tuberculosis of kidney, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 583.81, 590.81)</td>
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<td>016.04</td>
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<td>Tuberculosis of kidney, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals] — (Use additional code to identify manifestation: 583.81, 590.81)</td>
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<tr>
<td>204.00</td>
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<td>581.0</td>
<td>Nephrotic syndrome with lesion of proliferative glomerulonephritis</td>
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<td>581.2</td>
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<td>581.3</td>
<td>Nephrotic syndrome with lesion of minimal change glomerulonephritis</td>
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</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85555-85557

85555  Osmotic fragility, RBC; unincubated
85557  incubated

Explanation

Code 85555 may be ordered as an osmotic fragility test, a red blood cell fragility, an uninucleated osmotic fragility, or as a red blood cell osmotic fragility. Certain diseases cause red cells to change from their normal shape, which may increase or decrease their ability to take up water without lysing. The red cells are diluted with increasing concentrations of sodium chloride. The concentration that demonstrates hemolysis, or bursting, of the red cells, is compared to a normal patient's red cells. Code 85557 may be ordered as an incubated osmotic fragility test, an incubated red blood cell fragility, or as an incubated red blood cell osmotic fragility. Certain diseases cause red cells that have been incubated at 37 degrees for 24 hours to change from their normal shape, which may increase or decrease their ability to take up water without lysing. Otherwise, the red cells are diluted with increasing concentrations of sodium chloride as in 85555. As in 85555, the concentration that demonstrates hemolysis or bursting of the red cells is compared to a normal patient's red cells. Both tests are performed on whole blood manually.

Coding Tips

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

- 282.0  Hereditary spherocytosis
- 282.1  Hereditary elliptocytosis
- 282.2  Anemias due to disorders of glutathione metabolism
- 282.3  Other hemolytic anemias due to enzyme deficiency
- 282.40  Thalassemia, unspecified
- 282.41  Sickle-cell thalassemia without crisis
- 282.42  Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
- 282.43  Alpha thalassemia
- 282.44  Beta thalassemia
- 282.45  Delta-beta thalassemia
- 282.46  Thalassemia minor
- 282.47  Hemoglobin E-beta thalassemia
- 282.49  Other thalassemia
- 282.5  Sickle-cell trait
- 282.60  Sickle-cell disease, unspecified
- 282.61  Hb-SS disease without crisis
- 282.62  Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
- 282.63  Sickle-cell/Hb-C disease without crisis
- 282.64  Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
- 282.65  Other sickle-cell disease without crisis
- 282.66  Other sickle-cell disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
- 282.7  Other hemoglobinopathies
- 282.8  Other specified hereditary hemolytic anemias
- 282.9  Unspecified hereditary hemolytic anemia
- 283.0  Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
- 283.10  Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
- 283.11  Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
- 283.19  Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
- 283.2  Hemoglobinuria due to hemolysis from external causes — (Use additional E code to identify cause)
- 283.9  Acquired hemolytic anemia, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

80500-80502

Also not with 85557: 85555

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85576

Platelet, aggregation (in vitro), each agent

Explanation
This test may be ordered as a platelet aggregation study, or as an in vitro platelet aggregation study. Specimen is plasma. The method may be platelet aggregometer. Platelet function is measured by observing the amount of platelet clumping that occurs when certain chemicals are added to a solution of platelets. The test is an in vitro enactment of the platelet aggregation that occurs naturally at the site of vascular injury. The test may be used to detect von Willebrand’s disease or other inherited platelet dysjunction diseases.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. When documentation indicates that urine thromboxane metabolite measurements, with or without thromboxane were performed, then report code 84431.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

ICD-9-CM Diagnostic Codes
238.77 Post-transplant lymphoproliferative disorder [PTLD] — (Code first complications of transplant (996.80-996.89))
238.79 Other lymphatic and hematopoietic tissues
242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01 Toxic diffuse goiter with mention of thyrotoxic crisis or storm
245.2 Chronic lymphocytic thyroiditis
255.41 Glucocorticoid deficiency
281.0 Pernicious anemia
286.4 Von Willebrand’s disease
286.6 Defibrination syndrome
286.9 Other and unspecified coagulation defects
287.1 Qualitative platelet defects
340 Multiple sclerosis
579.0 Celiac disease
585.1 Chronic kidney disease, Stage I — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0.)

Procedure Codes

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<thead>
<tr>
<th>Procedure Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>85576</td>
<td>Platelet, aggregation (in vitro), each agent</td>
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ICD-9-CM Diagnostic Codes

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Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

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IOM References
100-4,16,70.8

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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85597-85598

**Explanation**
These are confirmatory tests for lupus anticoagulants (or other autoimmune diseases) using phospholipids derived from platelets (85597) or "hexagonal phase" phospholipids (85598). Some patients with systemic lupus develop an anticoagulant that reacts with platelet or hexagonal phase phospholipids. This test is very sensitive to this anticoagulant. The specimen is by venipuncture.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **Platelet.** Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. *Synonym(s):* thrombocyte.
- **Systemic lupus erythematosus.** Inflammatory connective tissue disease that may present with fever, fatigue, joint pain, weakness, and skin lesions.

**ICD-9-CM Diagnostic Codes**
- 287.30 Primary thrombocytopenia, unspecified
- 287.31 Immune thrombocytopenic purpura
- 287.32 Evans' syndrome
- 287.33 Congenital and hereditary thrombocytopenic purpura
- 287.39 Other primary thrombocytopenia
- 287.41 Posttransfusion purpura
- 287.49 Other secondary thrombocytopenia
- 287.8 Other specified hemorrhagic conditions
- 629.81 Recurrent pregnancy loss without current pregnancy
- 634.90 Unspecified spontaneous abortion without mention of complication
- 634.91 Incomplete spontaneous abortion without mention of complication
- 634.92 Complete spontaneous abortion without mention of complication
- 642.40 Mild or unspecified pre-eclampsia, unspecified as to episode of care
- 642.41 Mild or unspecified pre-eclampsia, with delivery
- 642.42 Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication
- 642.43 Mild or unspecified pre-eclampsia, antepartum
- 642.44 Mild or unspecified pre-eclampsia, postpartum condition or complication
- 642.50 Severe pre-eclampsia, unspecified as to episode of care
- 642.60 Eclampsia complicating pregnancy, childbirth or the puerperium, unspecified as to episode of care
- 642.70 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care
- 644.00 Threatened premature labor, unspecified as to episode of care
- 644.20 Early onset of delivery, unspecified as to episode of care
- 646.30 Pregnancy complication, recurrent pregnancy loss, unspecified as to episode of care — (Use additional code to further specify complication)
- 646.31 Pregnancy complication, recurrent pregnancy loss, with or without mention of antepartum condition — (Use additional code to further specify complication)
- 646.33 Pregnancy complication, recurrent pregnancy loss, antepartum condition or complication — (Use additional code to further specify complication)
- 710.0 Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
80500-80502
Also not with 85598: 85730-85732
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
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85610 - NCD

Prothrombin time;

Explanation
This test may be ordered as a prothrombin time (PT), a prothrombin, or as simply PT. The specimen is plasma. Method is one-stage using an automated device. The prothrombin time is prolonged when deficiencies of coagulation factors II, V, VII, or X are present. More commonly, this test monitors the effectiveness of the anticoagulant drug Coumadin or warfarin, prescribed to patients who have had blood clots or myocardial infarction.

Coding Tips
A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.17. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

ICD-9-CM Diagnostic Codes
002.0 Typhoid fever
002.1 Paratyphoid fever A
002.2 Paratyphoid fever B
002.3 Paratyphoid fever C
002.9 Unspecified paratyphoid fever
003.0 Salmonella gastroenteritis
003.1 Salmonella septicemia
003.20 Unspecified localized salmonella infection
003.21 Salmonella meningitis
003.22 Salmonella pneumonia
003.23 Salmonella arthritis
003.24 Salmonella osteomyelitis
003.29 Other localized salmonella infections
003.8 Other specified salmonella infections
003.9 Unspecified salmonella infection
038.9 Unspecified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS); 995.91-995.92)

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85635

85635 Reptilase test

Explanation
This test may be ordered as a reptilase test or, more commonly, reptilase time (RT). The specimen is plasma. Method involves adding venom of pit viper to a sample of the patient’s plasma and recording the clotting time. This test is most often used to monitor the effectiveness of thrombolytic or clot-lysing drugs such as streptokinase or urokinase. It may also be used to detect the presence of coagulation disorders such as dysfibrinogenemias (non-functional or abnormal fibrinogen) and clotting disorders such as disseminated intravascular coagulation (DIC).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coagulation. Clot formation.
intravascular. Within a blood vessel.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
plasma. Liquid portion of the blood, lymph, or milk.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
thrombolytic agent. Drugs or other substances used to dissolve blood clots in blood vessels or in tubes that have been placed into the body.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
85651-85652
85651 Sedimentation rate, erythrocyte; non-automated
85652 automated

Explanation
A sedimentation rate is a non-specific screening test for a number of diseases including anemia, disorders of protein production such as multiple myeloma, and other conditions that alter the size and/or shape of red cells or erythrocytes. This test may also be used to screen diseases that cause an increase or decrease in the amount of protein in the plasma or liquid portion of the blood. Sed rates may be non-automated (85651) or automated (85652). Code 85651 (non-automated sed rate) may be ordered as an erythrocyte sedimentation rate (ESR), a Westergren sedimentation rate, Wintrobe sedimentation rate, or simply as a 'sed rate.' A common one performed manually is the Westergren tube. An automated sed rate (85652) may be ordered as a Zeta sedimentation rate or as a Zeta sed rate. Method is centrifugation. Both the automated and non-automated methodologies use whole blood.

Coding Tips
Code 85651 may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.
sed rate. Sedimentation rate of erythrocytes.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

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**85660**

**Sickling of RBC, reduction**

**Explanation**

This test may be ordered as a sickle cell metabisulfite test, a sickle cell reduction test, an erythrocyte (RBC) sickling test, or as an RBC reduction sickle cell test. Specimen is whole blood. The method is manual. Whole blood is mixed with a reducing agent that causes erythrocytes that contain abnormal amounts of hemoglobin S to sickle or change their shape to an elongated ‘sickle’ cell. The solution is examined microscopically and the numbers of sickle cells are reported as a percentage of normal erythrocytes or RBCs.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Thalassemias (subcategory 282.4) are a group of hereditary hemolytic anemias caused by a decreased rate in the synthesis of different hemoglobin chains, due to the loss of those genes in the cell. The resulting anemic conditions range from being detected only by laboratory blood testing and those who look and feel normal, to a condition requiring life-long transfusions, and even severe, life-threatening anemia. Sickle-cell thalassemias are hereditary anemias involving both a thalassemia gene and the presence of hemoglobin-S in the erythrocytes. The symptoms resemble those of sickle-cell anemia.

**Terms To Know**

- **hemoglobin.** Oxygen-carrying component of the red blood cell.
- **Sickle cell disease.** Condition producing abnormal red blood cells.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
<th>Description</th>
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<tr>
<td>282.60</td>
<td>Sickle-cell disease, unspecified</td>
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<tr>
<td>282.61</td>
<td>Hb-SS disease without crisis</td>
</tr>
<tr>
<td>282.62</td>
<td>Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)</td>
</tr>
<tr>
<td>282.63</td>
<td>Sickle-cell/Hb-C disease without crisis</td>
</tr>
<tr>
<td>282.64</td>
<td>Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)</td>
</tr>
<tr>
<td>282.68</td>
<td>Other sickle-cell disease without crisis</td>
</tr>
<tr>
<td>282.69</td>
<td>Other sickle-cell disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)</td>
</tr>
<tr>
<td>283.0</td>
<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
</tr>
</tbody>
</table>

**Coding and Payment Guide for Laboratory Services**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>283.10</td>
<td>Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)</td>
</tr>
<tr>
<td>283.11</td>
<td>Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)</td>
</tr>
<tr>
<td>283.19</td>
<td>Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)</td>
</tr>
<tr>
<td>283.2</td>
<td>Hemoglobinuria due to hemolysis from external causes — (Use additional E code to identify cause)</td>
</tr>
<tr>
<td>283.9</td>
<td>Acquired hemolytic anemia, unspecified</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
85730-85732 - NCD

85730  Thromboplastin time, partial (PTT); plasma or whole blood
85732  substitution, plasma fractions, each

Explanation
Code 85730 may be ordered as a partial thromboplastin time or PTT, or as an activated partial thromboplastin time or APTT. The specimen is plasma. Code 85732 may be ordered as a diluted partial thromboplastin time, a PTT or APTT 1:1, or as a plasma diluted PTT or APTT. The specimen is plasma. Addition of or dilution with normal plasma differentiates between a clotting factor deficiency and a circulating anticoagulant. Prolonged partial thromboplastin times due to a clotting factor deficiency will shorten to normal with the addition of normal plasma while a prolonged PTT due to a circulating anticoagulant may increase with the addition of normal plasma. The partial thromboplastin time is prolonged when deficiencies of coagulation factors VIII, IX, XI, and XII are present. This test is used to monitor the effectiveness of the anticoagulant drug heparin, which is prescribed for patients who have had blood clots or heart attacks. The method is automated coagulation instrument for both procedures.

Coding Tips
A national coverage determination (NCD) applies to code 85730. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.16. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
coaulation. Clot formation.

ICD-9-CM Diagnostic Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>002.0</td>
<td>Typhoid fever</td>
</tr>
<tr>
<td>002.1</td>
<td>Paratyphoid fever A</td>
</tr>
<tr>
<td>002.2</td>
<td>Paratyphoid fever B</td>
</tr>
<tr>
<td>002.3</td>
<td>Paratyphoid fever C</td>
</tr>
<tr>
<td>002.9</td>
<td>Unspecified paratyphoid fever</td>
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<tr>
<td>003.0</td>
<td>Salmonella gastroenteritis</td>
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<tr>
<td>003.1</td>
<td>Salmonella septicemia</td>
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<tr>
<td>003.20</td>
<td>Unspecified localized salmonella infection</td>
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<tr>
<td>003.21</td>
<td>Salmonella meningitis</td>
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<td>003.22</td>
<td>Salmonella pneumonia</td>
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<td>003.23</td>
<td>Salmonella arthritis</td>
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<td>003.24</td>
<td>Salmonella osteomyelitis</td>
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<td>003.29</td>
<td>Other localized salmonella infections</td>
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<tr>
<td>003.8</td>
<td>Other specified salmonella infections</td>
</tr>
<tr>
<td>003.9</td>
<td>Unspecified salmonella infection</td>
</tr>
<tr>
<td>038.9</td>
<td>Unspecified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
</tr>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
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<td>060.0</td>
<td>Sylvatic yellow fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Urban yellow fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Unspecified yellow fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Crimean hemorrhagic fever (CHF Congo virus) — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Omsk hemorrhagic fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Kyasanur Forest disease — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>065.3</td>
<td>Other tick-borne hemorrhagic fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>065.4</td>
<td>Mosquito-borne hemorrhagic fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>065.8</td>
<td>Other specified arthropod-borne hemorrhagic fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<td>Unspecified arthropod-borne hemorrhagic fever — (Use additional code to identify any associated meningitis: 321.2)</td>
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<tr>
<td>070.0</td>
<td>Viral hepatitis A with hepatic coma</td>
</tr>
<tr>
<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
</tr>
<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.16

CCI Version 20.0
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Agglutinins, febrile (e.g., Brucella, Francisella, Murine typhus, Q fever, Rocky Mountain spotted fever, scrub typhus), each antigen

Explanation
This test may be ordered as febrile agglutinins or febrile agglutinate; or separately as Brucella antibody titers, Francisella Murine typhus antibody titers, Q fever antibody titers, Rocky Mountain spotted fever titers. Method is agglutination. If positive at a screening dilution, quantitation may be performed. Serologic agglutination may be used to identify and measure an antigen/antibody response to an infectious disease.

Coding Tips
To report antibodies to infective agents, see codes 86602–86804. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
agglutinins. Antibodies that bind cells together, causing them to clump.
antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.
Brucellosis. Infection in humans caused by the bacterium Brucella, a gram-negative, aerobic, coccobacilli microorganism, conveyed by contact with infected animals via infected meat and unpasteurized milk or cheese. Symptoms include fever, chills, sweating, weakness, fatigue, weight loss, aches, and abdominal pain. The various species of Brucella are based on the host animal: sheep, goat, cattle, pigs, or dogs. Brucellosis is reported with a code from ICD-9-CM category 023. Synonym(s): cyprus fever, Malta fever, Mediterranean fever, rock fever, undulant fever.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
003.0 Salmonella gastroenteritis
003.1 Salmonella septicemia
003.20 Unspecified localized salmonella infection
003.21 Salmonella meningitis
003.22 Salmonella pneumonitis
003.23 Salmonella arthritis
003.24 Salmonella osteomyelitis
003.29 Other localized salmonella infections
003.8 Other specified salmonella infections
003.9 Unspecified salmonella infection

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CCI Version 20.0
No CCI Edits apply to this code.
86003-86005

86003  Allergen specific IgE; quantitative or semiquantitative, each allergen
86005  qualitative, multiallergen screen (dipstick, paddle, or disk)

Explanation
Code 86003 may be performed by agar gel diffusion, ELISA, or Western blot. Code 86005 test may be ordered as a RAST (radioallergosorbent test) or by any of the several brand name products available. Blood specimen is serum. The test is essentially a contact reagent method. A dipstick or a disk is exposed to the patient's blood. A change in color indicates the presence of antibodies, indicating an "allergic" status. Immunoglobulin testing may be performed when skin testing is unreliable due to generalized dermatitis or severe dermatographism or when the patient is unable to discontinue the use of antihistamine.

Coding Tips
To report total quantitative IgE see 82785. To report total qualitative IgE, see code 83518. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
allergen. Substance that produces an immediate hypersensitivity (allergic) reaction upon contact, such as pollen or animal dander.
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
287.0  Allergic purpura
372.00 Unspecified acute conjunctivitis
372.05 Acute atopic conjunctivitis
372.13 Vernal conjunctivitis
372.14 Other chronic allergic conjunctivitis
381.04 Acute allergic serous otitis media
381.05 Acute allergic mucoid otitis media
381.06 Acute allergic sanguinous otitis media
461.0  Acute maxillary sinusitis — (Use additional code to identify infectious organism)
461.1  Acute frontal sinusitis — (Use additional code to identify infectious organism)
461.2  Acute ethmoidal sinusitis — (Use additional code to identify infectious organism)
461.3  Acute sphenoidal sinusitis — (Use additional code to identify infectious organism)
461.8  Other acute sinusitis — (Use additional code to identify infectious organism)
477.0  Allergic rhinitis due to pollen — (Use additional code to identify infectious organism)
477.1  Allergic rhinitis, due to food — (Use additional code to identify infectious organism)
477.8  Allergic rhinitis due to other allergen — (Use additional code to identify infectious organism)
477.9  Allergic rhinitis, cause unspecified — (Use additional code to identify infectious organism)
493.00 Extrinsic asthma, unspecified
493.01 Extrinsic asthma with status asthmaticus
493.02 Extrinsic asthma, with (acute) exacerbation
493.90 Asthma, unspecified, unspecified status
493.91 Asthma, unspecified with status asthmaticus
493.92 Asthma, unspecified, with (acute) exacerbation
495.8  Other specified allergic alveolitis and pneumonitis — (Use additional code to identify infectious organism)
495.9  Unspecified allergic alveolitis and pneumonitis — (Use additional code to identify infectious organism)
995.27 Other drug allergy
995.3  Allergy, unspecified not elsewhere classified
995.60 Anaphylactic reaction due to unspecified food

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
Also not with 86003: 86005
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86021-86023

**86021**  Antibody identification; leukocyte antibodies

**86022**  platelet antibodies

**86023**  platelet associated immunoglobulin assay

**Explanation**

Code 86021 may also be ordered as alloantibody identification or alloagglutinin identification (the term "isoantibodies" is archaic). Methods may include agglutination and flow cytometry. Codes 86022 and 86023 are used to report antibody identification of platelet antibodies. Code 86022 may be requested as serotonin release test. The method includes indirect immunofluorescence (IIF), flow cytometry, or enzyme linked immunosorbent assay (ELISA). Code 86023 reports platelet-associated immunoglobulin assay. It may be ordered as a platelet-associated IgG. Methods may commonly be immunofluorescence (IF) or radial immunodiffusion (RID); however, IgG may also be detected by indirect assay involving interaction between patient blood product and normal platelets.

**Coding Tips**

Leukocyte antibodies correlate closely to human leukocyte antigens, a complex genetic code for the immune system. The leukocyte antibody side of the equation may be referred to as alloagglutinins. Code 86021 is usually ordered to predict for one of several types of disorders: severe immune reactions from fetomaternal leukocyte incompatibility and/or neonate incompatibilities, postblood transfusion reactions, and poor blood component viability following transfusion. Alloantibodies arising from previous pregnancies and transfusions may be evident years after antigen exposure. Autoantibodies are usually identified with autoimmune disorders and infectious diseases. Platelets are small irregularly shaped cells, lacking a nucleus. Platelets service a variety of functions, including providing a surface area for a variety of reactions. Code 86022 is used to detect platelet antibodies. Autoantibodies develop in response to the body’s own platelets as a result of idiopathic thrombocytopenia. Autoantibodies develop following exposure to outside antigens, often from blood transfusions. Certain drugs may also induce platelet antibodies. Code 86023 may be associated with idiopathic thrombocytopenia purpura (ITP), a serious disorder involving low platelet counts.

**Terms To Know**

- **antibody.** Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **antigen.** Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **platelet.** Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. **Synonym(s):** thrombocyte.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
**86038-86039**

**86038**  Antinuclear antibodies (ANA); titer

**86039**  Antinuclear antibodies (ANA) titer

**Explanation**

These tests are used to measure autoantibodies in the nucleus of human cells and may be used as a screening test for autoimmune diseases such as systemic lupus erythematosus (SLE) and the family of diseases known as scleroderma. Code 86038 may be ordered as antinuclear antibodies (ANA) test or less commonly, nuclear binding antibody (NBA). The specimen is serum and methods include indirect immunofluorescent methodology and enzyme-linked immunoassay (ELISA). Code 86039 may be ordered as antinuclear antibodies (ANA) titer or, less commonly, nuclear binding antibody (NBA) titer. The specimen is serum. Methods include indirect immunofluorescent methodology and enzyme-linked immunoassay (ELISA).

**Coding Tips**

Diffuse disease of connective tissue (category 710) is a group of diseases in which the primary lesion appears to damage collagen, a protein that is the major component of connective tissue. Collagen diseases, attributed largely to disorders of the immune complex mechanisms, include dermatomyositis, systemic sclerosis, Sicca syndrome, polymyositis, collagen disease NOS, multifocal fibrosclerosis, and systemic lupus erythematosus. Many of these conditions, such as polyarteritis nodosa (a connective tissue disease that is a form of vasculitis) are classified to other chapters. For proper code assignment, follow the ICD-9-CM index carefully and read the includes and excludes notes pertaining to this category. Use an additional code to identify manifestation.

**Terms To Know**

scleroderma. Systemic disease characterized by excess fibrotic collagen build-up, turning the skin thickened and hard. Fibrotic changes also occur in various organs and cause vascular abnormalities and affect more women than men. Report this condition with ICD-9-CM code 710.1.

systemic lupus erythematosus. Inflammatory connective tissue disease that may present with fever, fatigue, joint pain, weakness, and skin lesions.

**ICD-9-CM Diagnostic Codes**

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<td>Psoriatic arthropathy</td>
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<td>Vitiligo</td>
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<td>Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)</td>
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<td>714.0</td>
<td>Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**86060-86063**

86060  Antistreptolysin O; titer
86063  screen

**Explanation**

These tests may be ordered as antistreptolysin O (ASO) screen. The specimen is serum. For code 86060 the method is hemagglutination. For code 86063 the methods include hemagglutination and slide agglutination. These tests are used for serological documentation of a group A streptococcal infection and may be used as a screening test for acute rheumatic fever or glomerulonephritis.

**Coding Tips**

To report antibodies to infectious agents, consult CPT codes 86602-86604. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*agglutination*. Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.

*glomerulonephritis*. Disease of the kidney with diffuse inflammation of the capillary loops of the glomeruli. It may be a complication of bacterial infection or immune disorders and can lead to renal failure and may be associated with hypertension or diabetes.

**ICD-9-CM Diagnostic Codes**

034.0  Streptococcal sore throat
041.00  Unspecified streptococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.01  Streptococcus infection in conditions classified elsewhere and of unspecified site, group A — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.09  Other streptococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)

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CCI Version 20.0

Also not with 86060: 86063

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Blood bank physician services; difficult cross match and/or evaluation of irregular antibody(s), interpretation and written report

investigation of transfusion reaction including suspicion of transmissible disease, interpretation and written report

authorization for deviation from standard blood banking procedures (eg, use of outdated blood, transfusion of Rh incompatible units), with written report

These codes represent physician blood bank services. Code 86077 is an assessment of crossmatch blood work and/or evaluation of irregular antibody prior to transfusion. This type of physician review may be called for when anomalies arise in the antibody evaluation. An interpretation and written report are specifically required in the code description. Code 86078 is an assessment of transfusion reaction, including suspicion of transmissible disease. This type of assessment occurs following transfusion and an interpretation and written report are specifically required in the code description. Common reactions include fever and hives. Of greater concern are anaphylactic shock, graft-versus-host disease, and pulmonary edema. Code 86079 involves a written authorization to deviate from standard blood banking procedures. Many facilities maintain rare antigen variants well beyond recommended storage life simply to ensure availability. The code reports the authorization to transfuse this type of blood product, as well as product with incompatible Rh to the recipient. A written report is required.

An assessment of crossmatch blood work and evaluation of irregular antibodies prior to transfusion (86077) is often necessary when anomalies arise in the antibody evaluation. The assessment of transfusion reaction, including suspicion of transmissible disease (86078) occurs following transfusion and an interpretation and written report are specifically required in the code description. Common reactions include fever and hives. Of greater concern are anaphylactic shock, graft-versus-host disease, and pulmonary edema. Authorization to deviate from standard blood banking procedures is used to report the physician authorization to transfuse an antigen, usually rare, beyond the recommended storage life. All three of these services require a written report. These services are paid under the physician fee schedule.

**Terms To Know**

antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

graft-versus-host disease. Acute or chronic complication of blood transfusion, bone marrow transplant, or any organ transplant in which white blood cells are present in the transplanted organ. Acute cases may result in skin disruption, diarrhea, hyperbilirubinemia, and an increase in susceptibility to infection. Chronic cases typically begin more than three months post-transplant. In addition to the symptoms noted above, dry eyes and mouth, loss of hair, and lung disorders may be present. Report this condition with an ICD-9-CM code from subcategory 279.5 or an ICD-10-CM code from category DB9.81-. Synonym(s): GVH.

transfusion. Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**

No CCI Edits apply to this code.
86140-86141

86140  C-reactive protein;
86141  high sensitivity (hsCRP)

Explanation

C-reactive protein is released into the bloodstream when the blood vessels leading to the heart are damaged, which qualifies it is a nonspecific marker of inflammation. Code 86140 can be performed by one of several methods, including latex agglutination and enzyme-linked immunosorbent assay (ELISA). Measurement of C-reactive protein by high sensitivity CRP (hsCRP) (86141) assays adds to the predictive value of other markers used to assess a variety of conditions which can lead to elevated serum concentration of CRP. CRP assay involves the coating of artificially produced particles (e.g., Latex) with an antibody specific to human CRP aggregate in the presence of CRP from the patient sample of formed immune complex. The immune complex causes an increase in light scattering that is proportional to the concentration of CRP in the sample. The light scattering is quantified optically by measuring turbidity. Elevated CRP is the result of many conditions including inflammation, infection, and malignancy. C-reactive protein, hsCRP is also used to assess cardiovascular and peripheral vascular disease. Serum is the specimen for 86140; serum or plasma for 86141.

Coding Tips

High levels of CRP may also be present in bacterial infections, some tumors and various types of tissue damage, but more commonly in acute rheumatic fever and rheumatoid arthritis. Rheumatoid arthritis (714.0) is a chronic, systemic inflammatory disease of unknown etiology, characterized by a variable but prolonged course with exacerbations and remissions of joint pain and swelling. In early stages, the disease attacks the joints of the hands and feet. As the disease progresses, more joints become involved. Also known as primary progressive arthritis and proliferative arthritis, the disease often leads to progressive deformities, which may develop rapidly, and produce permanent disability. Onset, distribution, degree of severity, and rate of progressions, as clinical manifestations of rheumatoid arthritis are highly variable. Joint disease is the major manifestation; systemic involvement (spleen, liver, eyes, etc.) is rare. Use an additional code to identify manifestations of rheumatoid arthritis (714.0) such as myopathy (359.6) and polyneuropathy (357.1) if documented.

ICD-9-CM Diagnostic Codes

242.00  Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01  Toxic diffuse goiter with mention of thyrotoxic crisis or storm
245.2   Chronic lymphocytic thyroiditis
255.41  Glucocorticoid deficiency
340     Multiple sclerosis
357.0   Acute infective polyneuritis
446.21  Goodpasture's syndrome — (Use additional code to identify renal disease: 583.81)
446.4   Wegener's granulomatosis
446.5   Giant cell arteritis
555.9   Regional enteritis of unspecified site
556.0   Ulcerative (chronic) enterocolitis
556.1   Ulcerative (chronic) ileocolitis
556.2   Ulcerative (chronic) proctitis
556.3   Ulcerative (chronic) proctosigmoiditis
556.5   Left sided ulcerative (chronic) colitis
556.6   Universal ulcerative (chronic) colitis
556.8   Other ulcerative colitis
556.9   Unspecified ulcerative colitis
571.42  Autoimmune hepatitis
571.6   Biliary cirrhosis
576.1   Cholangitis
579.0   Celiac disease
710.0   Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)
710.1   Systemic sclerosis — (Use additional code to identify manifestation: 359.6, 517.2)
710.2   Sicca syndrome
714.0   Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

Also not with 86141: 86140

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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86147
86147 Cardiolipin (phospholipid) antibody, each Ig class

Explanation
This test may also be ordered as antiphospholipid antibody or anticardiolipin antibodies (ACA). The specimen is serum. Method is enzyme-linked immunoassay (ELISA). The test may be used to classify patients with recurrent venous or arterial thrombosis, thrombocytopenia (low platelet count), recurrent fetal loss, and acquired valvular heart disease, and systemic lupus erythematosus (SLE).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
lupus erythematosus. Disease seen as an inflammatory skin condition.
thrombocytopenia. Reduced number of platelets in the blood.
thrombosis. Condition arising from the presence or formation of blood clots within a blood vessel that may cause vascular obstruction and insufficient oxygenation.

ICD-9-CM Diagnostic Codes
287.30 Primary thrombocytopenia, unspecified
287.33 Congenital and hereditary thrombocytopenic purpura
340 Multiple sclerosis
433.30 Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
433.31 Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
433.80 Occlusion and stenosis of other specified precerebral artery without mention of cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
433.81 Occlusion and stenosis of other specified precerebral artery with cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
433.90 Occlusion and stenosis of unspecified precerebral artery without mention of cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
433.91 Occlusion and stenosis of unspecified precerebral artery with cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)
444.22 Embolism and thrombosis of arteries of lower extremity
444.81 Embolism and thrombosis of iliac artery
444.89 Embolism and thrombosis of other specified artery
453.40 Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity
453.41 Acute venous embolism and thrombosis of deep vessels of proximal lower extremity
453.50 Chronic venous embolism and thrombosis of unspecified deep vessels of lower extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))
453.51 Chronic venous embolism and thrombosis of deep vessels of proximal lower extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))
453.72 Chronic venous embolism and thrombosis of deep veins of upper extremity — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))
453.79 Chronic venous embolism and thrombosis of other specified veins — (Use additional code, if applicable, for associated long-term (current) use of anticoagulants (V58.61))
453.81 Acute venous embolism and thrombosis of superficial veins of upper extremity
453.82 Acute venous embolism and thrombosis of deep veins of upper extremity
634.92 Complete spontaneous abortion without mention of complication
710.0 Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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86148

86148  Anti-phosphatidylserine (phospholipid) antibody

Explanation
Testing for antiphosphatidylserine antibodies, a class of phospholipid antibodies, identifies various autoimmune disorders and antiphospholipid syndrome in patients that are negative for anticardiolipin antibodies. Antiphospholipid syndrome (APS) is an autoimmune condition that may manifest with fetal loss, thrombosis, or autoimmune thrombocytopenia. The specimen is serum. The method of testing is enzyme immunoassay.

Coding Tips
To report antiprothrombin (phospholipid cofactor) antibody, consult CPT code 86849. For cell enumeration using immunologic selection and identification in fluid specimen, code 86153. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
immunoassay. Method that uses binding between an antigen and antibody for determination of the presence of certain chemical substances. NCD
thrombosis. Condition arising from the presence or formation of blood clots within a blood vessel that may cause vascular obstruction and insufficient oxygenation.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
No CCI Edits apply to this code.

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(86152, 86153)

86152  Cell enumeration using immunologic selection and identification in fluid specimen (e.g., circulating tumor cells in blood);
86153  physician interpretation and report, when required

Explanation
A sample of blood (or other fluid) is taken. Techniques are used to isolate certain types of cells (e.g., metastatic malignancy cells) within the sample. These cells are counted and reported. Technology today allows a single malignant cell to be identified in a vial of blood, helping determine if a more aggressive or different therapy modality should be tried. Report 86152 for the cell enumeration test. Report 86153 for the interpretation and reporting of the test when applicable.

Coding Tips
Codes 86152 and 86153 are resequenced codes and will not display in numeric order. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- interpretation. Professional health care provider's review of data with a written or verbal opinion.
- specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
86355-86356, 86357, 86359-86367, 88184-88189, 88313, 88358-88361
Also not with 86152: 86255-86256, 88342, 88346-88347
Also not with 86153: 88346
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Cold agglutinin; screen
titer

Explanation
Code 81656 may be ordered as cold agglute or thermal amplitude assay. Code 86157 may be ordered as cold agglute titer or thermal amplitude assay. The specimen is serum and the method is hemagglutination for either test. These tests may be used to screen immunoglobulin M (IgM) class antibody, which may be present in acute primary atypical pneumonia (Mycoplasma pneumoniae) and certain hemolytic anemias. Low levels of cold agglutinins have been demonstrated in malaria, peripheral vascular disease, and common respiratory diseases.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
anemia. Deficiency in the blood whether in red blood cells, hemoglobin, or total blood count.
malaria. Mosquito-borne parasitic infective disease manifested by cyclical chills, fever, and sweating.
peripheral. Outside of a structure or organ.

ICD-9-CM Diagnostic Codes
084.9 Other pernicious complications of malaria — (Use additional code to identify complication: 573.2, 581.81)
202.80 Other malignant lymphomas, unspecified site, extranodal and solid organ sites
202.81 Other malignant lymphomas of lymph nodes of head, face, and neck
202.82 Other malignant lymphomas of intrathoracic lymph nodes
202.83 Other malignant lymphomas of intra-abdominal lymph nodes
202.84 Other malignant lymphomas of lymph nodes of axilla and upper limb
202.85 Other malignant lymphomas of lymph nodes of inguinal region and lower limb
202.86 Other malignant lymphomas of intrapelvic lymph nodes
202.87 Other malignant lymphomas of spleen

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CCI Version 20.0
Also not with 86157: 86156
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

86160-86161
86160  Complement; antigen, each component
86161  functional activity, each component

Explanation
Code 86160 may be ordered as individual complement components 2-5 or Factor B. The specimen is serum. Methodology is radial immunodiffusion or nephelometry. Code 86161 may be ordered as individual complement component. The specimen is serum. Methodology is radial immunodiffusion or nephelometry.

Coding Tips
Complement activation is a multicomponent biological response function of the immune system present in inflammatory conditions; the degree of complement activation may be used to indicate the intensity of the inflammatory process. Syndromes associated with complement activation include rheumatoid arthritis, systemic lupus erythematosus (SLE), gram negative sepsis, and chronic hepatitis. Rheumatoid arthritis (714.0) is a chronic, systemic inflammatory disease of unknown etiology, characterized by a variable but prolonged course with exacerbations and remissions of joint pains and swelling. In early stages, the disease attacks the joints of the hands and feet. As the disease progresses, more joints become involved. Also known as primary progressive arthritis and proliferative arthritis, the disease often leads to progressive deformities, which may develop rapidly, and produce permanent disability. Onset, distribution, degree of severity, and rate of progressions, as clinical manifestations of rheumatoid arthritis are highly variable. Joint disease is the major manifestation; systemic involvement (spleen, liver, eyes, etc.) is rare. Use an additional code to identify manifestations of rheumatoid arthritis (714.0) such as myopathy (359.6) and polyneuropathy (357.1) if documented.

Terms To Know
sepsis. Phase following septicemia in the infectious illness continuum, not to be used interchangeably with septicemia. Sepsis is defined for clinical coding purposes as septicemia that has advanced to involve the presence of two or more manifestations of systemic inflammatory response syndrome (SIRS), without organ dysfunction. This is a different clinical picture than septicemia, which has a different outcome. Sepsis (generalized) is coded as the appropriate septicemia code (ICD-9-CM category 038), as well as the SIRS code (995.91-995.92).

ICD-9-CM Diagnostic Codes

571.42  Autoimmune hepatitis
580.0   Acute glomerulonephritis with lesion of proliferative glomerulonephritis
580.4   Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis
580.81  Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)
580.89  Other acute glomerulonephritis with other specified pathological lesion in kidney
580.9   Acute glomerulonephritis with unspecified pathological lesion in kidney
582.0   Chronic glomerulonephritis with lesion of proliferative glomerulonephritis
582.1   Chronic glomerulonephritis with lesion of membranous glomerulonephritis
582.2   Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis
582.4   Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis
582.81  Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 277.30-277.39, 710.0)
582.89  Other chronic glomerulonephritis with specified pathological lesion in kidney
582.9   Chronic glomerulonephritis with specified pathological lesion in kidney
583.0   Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis
583.1   Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranous glomerulonephritis
583.2   Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis
583.4   Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis
583.6   Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis
583.7   Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal medullary necrosis
583.81  Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere — (Code first underlying disease: 016.0, 098.19, 249.4, 250.4, 277.30-277.39, 446.21, 710.0)
710.0   Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**Complement; total hemolytic (CH50)**

**Explanation**
This test may be ordered as complement CH50, total. The specimen is serum. Methodology involves an indicator system using predetermined amounts of sheep red blood cells coated with antibody and is measured by spectrophotometry. Complement activation is a multi-component biological response function of the immune system present in inflammatory conditions; the degree of complement activation may be used to indicate the intensity of the inflammatory process. Syndromes associated with complement activation include rheumatoid arthritis, systemic lupus erythematosus (SLE), gram negative sepsis, and chronic hepatitis.

**Coding Tips**
Rheumatoid arthritis (714.0) is a chronic, systemic inflammatory disease of unknown etiology, characterized by a variable but prolonged course with exacerbations and remissions of joint pains and swelling. In early stages, the disease attacks the joints of the hands and feet. As the disease progresses, more joints become involved. Also known as primary progressive arthritis and proliferative arthritis, the disease often leads to progressive deformities, which may develop rapidly, and produce permanent disability. Onset, distribution, degree of severity, and rate of progressions, as clinical manifestations of rheumatoid arthritis are highly variable. Joint disease is the major manifestation; systemic involvement (spleen, liver, eyes, etc.) is rare. Use an additional code to identify manifestations of rheumatoid arthritis (714.0) such as myopathy (359.6) and polyneuropathy (357.1) if documented.

**Terms To Know**
sepsis. Phase following septicemia in the infectious illness continuum, not to be used interchangeably with septicemia. Sepsis is defined for clinical coding purposes as septicemia that has advanced to involve the presence of two or more manifestations of systemic inflammatory response syndrome (SIRS), without organ dysfunction. This is a different clinical picture than septicemia, which has a different outcome. Sepsis (generalized) is coded as the appropriate septicemia code (ICD-9-CM category 038), as well as the SIRS code (995.91-995.92).

**ICD-9-CM Diagnostic Codes**

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<td>Other specified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
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<td>Unspecified septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
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<td>571.41</td>
<td>Chronic persistent hepatitis</td>
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<td>580.89</td>
<td>Other acute glomerulonephritis with other specified pathological lesion in kidney</td>
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**CCI Version 20.0**
No CCI Edits apply to this code.
86200
Cyclic citrullinated peptide (CCP), antibody

Explanation
This test may also be known as anti-CCP or CCP antibodies. The test is used to diagnose rheumatoid arthritis (RA) in the earliest stages. The specimen is serum and the method of testing is by enzyme linked immunosorbent assay (ELISA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Rheumatoid arthritis (714.0) is a chronic, systemic inflammatory disease of unknown etiology, characterized by a variable but prolonged course with exacerbations and remissions of joint pains and swelling. In early stages, the disease attacks the joints of the hands and feet. As the disease progresses, more joints become involved. Also known as primary progressive arthritis and proliferative arthritis, the disease often leads to progressive deformities, which may develop rapidly, and produce permanent disability. Onset, distribution, degree of severity, and rate of progressions, as clinical manifestations of rheumatoid arthritis are highly variable. Joint disease is the major manifestation; systemic involvement (spleen, liver, eyes, etc.) is rare. Use an additional code to identify manifestations of rheumatoid arthritis (714.0) such as myopathy (359.6) and polyneuropathy (357.1) if documented.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
arthropathy. Disease of the joints.
assay. Test of purity.

ICD-9-CM Diagnostic Codes
714.0 Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)
714.1 Felty's syndrome
714.2 Other rheumatoid arthritis with visceral or systemic involvement
714.30 Polyrarticular juvenile rheumatoid arthritis, chronic or unspecified
714.31 Polyrarticular juvenile rheumatoid arthritis, acute
714.32 Pauciarticular juvenile rheumatoid arthritis
714.33 Monoarticular juvenile rheumatoid arthritis
714.4 Chronic postrheumatic arthropathy
716.90 Unspecified arthropathy, site unspecified
716.91 Unspecified arthropathy, shoulder region
716.92 Unspecified arthropathy, upper arm
716.93 Unspecified arthropathy, forearm
716.94 Unspecified arthropathy, hand
716.95 Unspecified arthropathy, pelvic region and thigh
716.96 Unspecified arthropathy, lower leg
716.97 Unspecified arthropathy, ankle and foot
716.98 Unspecified arthropathy, other specified sites
716.99 Unspecified arthropathy, multiple sites

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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Deoxyribonucleic acid (DNA) antibody; native or double stranded

Explanation
Code 86225 may be ordered as anti-DNA, anti-ds-DNA, dsDNA antibody, or anti-native DNA. The specimen is serum. Methods include indirect immunofluorescent assay and enzyme-linked immunosorbent assay (ELISA). This test may be performed for patients previously diagnosed with systemic lupus erythematosus (SLE). These patients may exhibit a high level of antibody against their own native double-stranded DNA, and results of the test may indicate renal involvement. This test for the double-stranded DNA. Low levels of the antibody may be found in other autoimmune disorders such as Sjogren’s syndrome, mixed connective tissue disease, and progressive systemic sclerosis.Code 86226 may be ordered as ssDNA, antibody IgG, or anti-single stranded DNA. The specimen is serum. Method is enzyme-linked immunosorbent assay (ELISA). Single stranded DNA antibodies are found in 20 to 30 percent of all cases of systemic lupus erythematosus (SLE), and less specific in the diagnosis of SLE compared to double-stranded DNA antibodies. Lower levels of double-stranded DNA antibodies are associated with chronic inflammatory processes, malignancy, drug-induced lupus, or cardiolipin antibodies (cross-reaction).

Coding Tips
To report fluorescent noninfectious agent antibody, consult CPT codes 86255 and 86256. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Sjogren’s disease with generalized lymphadenopathy is coded as 710.2 and 785.6.

Terms To Know
Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

Sjogren’s syndrome. Inflammatory autoimmune disease that causes the mucous membranes to dry out.

Systemic lupus erythematosus. Inflammatory connective tissue disease that may present with fever, fatigue, joint pain, weakness, and skin lesions.

### ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
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<td>Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)</td>
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<tr>
<td>710.2</td>
<td>Sicca syndrome</td>
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<tr>
<td>785.6</td>
<td>Enlargement of lymph nodes</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

### CCI Version 20.0

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86235

86235  Extractable nuclear antigen, antibody to, any method (eg, nRNP, SS-A, SS-B, Sm, RNP, Sc170, J01), each antibody

Explanation
Examples of antibodies covered by this code are listed in the CPT(r) description; however, other antibodies may also be reported with this code. This test is performed to detect antibodies associated with system lupus erythematosis (SLE) and mixed connective tissue disease. Anti-Sm is highly specific for SLE. Anti-RNP is found with a variety of rheumatoid diseases. The specimen is serum. The most common method of testing is flow cytometry.

Coding Tips
Assign this CPT code for each antibody assay for each extractable nuclear antigen. Diffuse disease of connective tissue (category 710) is a group of diseases in which the primary lesion appears to be damage to collagen, a protein that is the major component of connective tissue. Collagen diseases, attributed largely to disorders of the immune complex mechanisms include dermatomyositis, systemic sclerosis, Sicca syndrome, polymyositis, collagen disease NOS, multifocal fibrosclerosis, and systemic lupus erythematosus. Many of these conditions, such as polyarteritis nodosa (a connective tissue disease that is a form of vasculitis) are classified to other chapters. For proper code assignment, follow the ICD-9-CM index carefully and read the includes and excludes notes pertaining to this category. Use an additional code to identify manifestation.

Terms To Know
systemic lupus erythematosus. Inflammatory connective tissue disease that may present with fever, fatigue, joint pain, weakness, and skin lesions.

ICD-9-CM Diagnostic Codes
255.41  Glucocorticoid deficiency
279.41  Autoimmune lymphoproliferative syndrome — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)
340  Multiple sclerosis
357.0  Acute infective polyneuritis
446.21  Goodpasture’s syndrome — (Use additional code to identify renal disease: 583.81)
446.4  Wegener’s granulomatosis
446.5  Giant cell arteritis
555.9  Regional enteritis of unspecified site
556.0  Ulcerative (chronic) enterocolitis
556.1  Ulcerative (chronic) ileocolitis
556.2  Ulcerative (chronic) proctitis
701.0  Circumscribed scleroderma
710.0  Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)
710.1  Systemic sclerosis — (Use additional code to identify manifestation: 359.6, 517.2)
710.2  Sicca syndrome
710.3  Dermatomyositis
710.4  Polymyositis
710.5  Eosinophilia myalgia syndrome — (Use additional E code to identify drug, if drug-induced)
714.0  Rheumatoid arthritis — (Use additional code to identify manifestation: 357.1, 359.6)
714.1  Felty’s syndrome
714.2  Other rheumatoid arthritis with visceral or systemic involvement
714.30  Polyarticular juvenile rheumatoid arthritis, chronic or unspecified
714.31  Polyarticular juvenile rheumatoid arthritis, acute
714.32  Pauciarticular juvenile rheumatoid arthritis
714.33  Monoarticular juvenile rheumatoid arthritis
714.4  Chronic postrheumatic arthropathy
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**Explanation**

These codes report detection of noninfectious agents using fluorescent agent antibody technique. A number of noninfectious agents are reported with codes 86255 and 86256. Some antibodies reported with these codes include: acetylcholine receptor antibody (anti-AChR); adrenal cortex antibodies; anti D. S., DNA, IFA using C. Luciliae; mitochondrial antibody, liver; smooth muscle antibody; antineutrophil antibody; endomyosal antibody; parietal cell antibody; and myositis-specific autoantibody. Code 86255 is a screen and reports the presence of the antibody only. Code 86256 is a titer and reports the level of antibody present.

**Coding Tips**

To report fluorescent technique for antigen identification in tissue, consult CPT code 88346; for indirect fluorescence, consult CPT code 88347. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

**ICD-9-CM Diagnostic Codes**

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<td>285.29</td>
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<td>Regional enteritis of small intestine</td>
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<td>555.1</td>
<td>Regional enteritis of large intestine</td>
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<td>556.0</td>
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<td>556.1</td>
<td>Ulcerative (chronic) ileocolitis</td>
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<td>556.3</td>
<td>Ulcerative (chronic) proctosigmoiditis</td>
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<td>556.4</td>
<td>Pseudopolyposis of colon</td>
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<td>556.5</td>
<td>Left sided ulcerative (chronic) colitis</td>
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<td>556.6</td>
<td>Universal ulcerative (chronic) colitis</td>
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<td>556.9</td>
<td>Unspecified ulcerative colitis</td>
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<td>558.1</td>
<td>Gastroenteritis and colitis due to radiation</td>
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<td>Toxic gastroenteritis and colitis — (Use additional E code to identify cause)</td>
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<th>Coding and Payment Guide for Laboratory Services</th>
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<tr>
<td>86255</td>
<td>Fluorescent noninfectious agent antibody; screen, each antibody</td>
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<td>titer, each antibody</td>
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<td>Other and unspecified noninfectious gastroenteritis and colitis</td>
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<td>564.1</td>
<td>Irritable bowel syndrome</td>
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<td>Blood in stool</td>
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<td>579.0</td>
<td>Celiac disease</td>
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<td>579.8</td>
<td>Other specified intestinal malabsorption</td>
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<td>Systemic lupus erythematosus — (Use additional code to identify manifestation: 424.91, 581.81, 582.81, 583.81)</td>
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<td>Systemic sclerosis — (Use additional code to identify manifestation: 359.6, 517.2)</td>
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<td>710.5</td>
<td>Eosinophilia myalgia syndrome — (Use additional E code to identify drug, if drug-induced)</td>
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<td>Other specified diffuse disease of connective tissue</td>
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<td>787.01</td>
<td>Nausea with vomiting</td>
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<td>787.02</td>
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<tr>
<td>787.03</td>
<td>Vomiting alone</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Growth hormone, human (HGH), antibody

**Explanation**
This test may also be ordered as somatotropin antibody, GH antibody test, or IGF (insulin-like growth factor) antibody. Portions of the pituitary gland secrete growth hormone. Serum levels normally rise and fall throughout the day. Radioimmunoassay (RIA) is the method of choice.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **pituitary dwarfism.** Dwarfism with infantile physical characteristics due to abnormally low secretion of growth hormone and gonadotropin deficiency. Report this disorder with ICD-9-CM code 253.3. *Synonym(s):* Burnier syndrome, GHD, growth hormone deficiency, Lurain-Levi syndrome.
- **pituitary gigantism.** Pituitary secretions causing gigantism beginning before puberty with eosinophilic cell hyperplasia, eosinophilic adenoma, or chromophobe adenoma. Report this disorder with ICD-9-CM code 253.0. *Synonym(s):* Launois' syndrome

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
<th>Description</th>
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<td>Neoplasm of unspecified nature of endocrine glands and other parts of nervous system</td>
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<td>253.0</td>
<td>Acromegaly and gigantism</td>
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<td>Other and unspecified anterior pituitary hyperfunction</td>
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<td>Other disorders of neurohypophysis</td>
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<td>253.7</td>
<td>Iatrogenic pituitary disorders — (Use additional E code to identify cause)</td>
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<td>Other disorders of the pituitary and other syndromes of diencephalohypophyseal origin</td>
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<td>Unspecified disorder of the pituitary gland and its hypothalamic control</td>
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<td>Ectopic hormone secretion, not elsewhere classified</td>
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Immunooassay for tumor antigen, qualitative or semiquantitative (e.g., bladder tumor antigen)

**Explanation**
This code may be requested as single step qualitative or semi-quantitative immunooassay to identify the presence of a specific tumor antigen. The specimen is serum. Method is immunooassay.

**Coding Tips**
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. To report MMP22 protein; qualitative, see 86386.

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **malignant.** Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
- **qualitative.** To determine the nature of the component of substance.
- **tumor.** Pathological swelling or enlargement; a neoplastic growth of uncontrolled, abnormal multiplication of cells.

**ICD-9-CM Diagnostic Codes**
- 188.0 Malignant neoplasm of trigone of urinary bladder
- 188.1 Malignant neoplasm of dome of urinary bladder
- 188.2 Malignant neoplasm of lateral wall of urinary bladder
- 188.3 Malignant neoplasm of anterior wall of urinary bladder
- 188.4 Malignant neoplasm of posterior wall of urinary bladder
- 188.5 Malignant neoplasm of bladder neck
- 188.6 Malignant neoplasm of ureteric orifice
- 188.7 Malignant neoplasm of urachus
- 188.8 Malignant neoplasm of other specified sites of bladder
- 188.9 Malignant neoplasm of bladder, part unspecified
- 198.1 Secondary malignant neoplasm of other urinary organs
- 233.7 Carcinoma in situ of bladder
- 239.4 Neoplasm of unspecified nature of bladder
- 599.70 Hematuria, unspecified
- 599.71 Gross hematuria
- 599.72 Microscopic hematuria
- 724.2 Lumbago

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86300 - NCD

86300  Immunoassay for tumor antigen, quantitative; CA 15-3 (27.29)

Explanation
This test may also be requested as CEA carbohydrate antigen 15-3. Method is immunoassay or ICMA. Quantitative analysis for CA 15-3 is used primarily to monitor patients for recurrence of breast cancer after diagnosis and initial treatment or to evaluate response to therapy. Elevated levels are often indicative of a recurrence or a failed treatment.

Coding Tips
A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.29.

Terms To Know
antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.
immunoassay. Method that uses binding between an antigen and antibody for determination of the presence of certain chemical substances. NCD References: 190.28, 190.29, 190.30.
malignant. Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
174.0 Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.1 Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.2 Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.3 Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.4 Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.5 Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.6 Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.8 Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.9 Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
175.0 Malignant neoplasm of nipple and areola of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
175.9 Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
198.2 Secondary malignant neoplasm of skin
198.81 Secondary malignant neoplasm of breast
338.3 Neoplasm related pain (acute) (chronic) — (Use additional code to identify pain associated with psychological factors: 307.89)
795.89 Other abnormal tumor markers
V10.3 Personal history of malignant neoplasm of breast

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3, 190.29

CCI Version 20.0
86294, 86316

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86301 - NCD

86301  Immunoassay for tumor antigen, quantitative; CA 19-9

Explanation
This test may also be requested as carbohydrate antigen 19-9. The specimen is serum. Method is immunoassay. Quantitative analysis for CA 19-9 is used primarily as a marker for pancreatic cancer. It identifies recurrence and monitors patients. It is also used to monitor gastrointestinal, head/neck, and gynecological cancer. It may identify recurrence of stomach, colorectal, liver, gallbladder, and urothelial malignancies.

Coding Tips
A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.30.

Terms To Know
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **malignant**: Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
- **neoplasm**: New abnormal growth, tumor.
- **quantitative**: To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
<th>Description</th>
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<tr>
<td>155.1</td>
<td>Malignant neoplasm of intrahepatic bile ducts</td>
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<td>156.0</td>
<td>Malignant neoplasm of gallbladder</td>
</tr>
<tr>
<td>156.1</td>
<td>Malignant neoplasm of extrahepatic bile ducts</td>
</tr>
<tr>
<td>156.2</td>
<td>Malignant neoplasm of ampulla of Vater</td>
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<tr>
<td>156.8</td>
<td>Malignant neoplasm of other specified sites of gallbladder and bile ducts</td>
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<tr>
<td>156.9</td>
<td>Malignant neoplasm of biliary tract, part unspecified site</td>
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<td>157.0</td>
<td>Malignant neoplasm of head of pancreas</td>
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<td>157.1</td>
<td>Malignant neoplasm of body of pancreas</td>
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<tr>
<td>157.2</td>
<td>Malignant neoplasm of tail of pancreas</td>
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<tr>
<td>157.3</td>
<td>Malignant neoplasm of pancreatic duct</td>
</tr>
<tr>
<td>157.4</td>
<td>Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)</td>
</tr>
<tr>
<td>157.8</td>
<td>Malignant neoplasm of other specified sites of pancreas</td>
</tr>
<tr>
<td>157.9</td>
<td>Malignant neoplasm of pancreas, part unspecified</td>
</tr>
<tr>
<td>197.8</td>
<td>Secondary malignant neoplasm of other digestive organs and spleen</td>
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<tr>
<td>235.3</td>
<td>Neoplasm of uncertain behavior of liver and biliary passages</td>
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<tr>
<td>235.5</td>
<td>Neoplasm of uncertain behavior of other and unspecified digestive organs</td>
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<th>Code</th>
<th>Description</th>
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<td>338.3</td>
<td>Neoplasm related pain (acute) (chronic) — (Use additional code to identify pain associated with psychological factors: 307.89)</td>
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<td>795.89</td>
<td>Other abnormal tumor markers</td>
</tr>
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<td>V10.09</td>
<td>Personal history of malignant neoplasm of other site in gastrointestinal tract</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.30

CCI Version 20.0
86294, 86316

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Immunoassay for tumor antigen, quantitative; CA 125

**Explanation**
This test may also be requested as cancer antigen 125. The specimen is serum. Method is immunoassay. CA 125 is found in ovarian cancers, and some endometrium and fallopian tube cancers. Testing for CA 125 is performed primarily to detect residual tumor in women who have been previously diagnosed with ovarian malignancy.

**Coding Tips**
A national coverage determination (NCD) exists for this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.28. To report measurement of serum HER-2/neu oncoprotein, consult CPT code 83950. For hepatitis delta agent, antibody, consult CPT code 86692.

**Terms To Know**
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **immunoassay**: Method that uses binding between an antigen and antibody for determination of the presence of certain chemical substances.
- **malignant**: Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
- **NCD**: National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.
- **neoplasm**: New abnormal growth, tumor.

**ICD-9-CM Diagnostic Codes**
- 158.8 Malignant neoplasm of specified parts of peritoneum
- 158.9 Malignant neoplasm of peritoneum, unspecified
- 180.0 Malignant neoplasm of endocervix
- 182.0 Malignant neoplasm of corpus uteri, except isthmus
- 183.0 Malignant neoplasm of ovary — (Use additional code to identify any functional activity)
- 183.2 Malignant neoplasm of fallopian tube
- 183.8 Malignant neoplasm of other specified sites of uterine adnexa
- 184.8 Malignant neoplasm of other specified sites of female genital organs
- 198.6 Secondary malignant neoplasm of ovary
- 198.82 Secondary malignant neoplasm of genital organs
- 236.0 Neoplasm of uncertain behavior of uterus
- 236.1 Neoplasm of uncertain behavior of placenta
- 236.2 Neoplasm of uncertain behavior of ovary — (Use additional code to identify any functional activity)

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**86305**

**Human epididymis protein 4 (HE4)**

**Explanation**
The gene for human epididymis protein 4 (HE4) is among those most often identified in gene expression profiles of epithelial ovarian carcinomas and has been shown to be elevated in a high percentage of women with ovarian cancer. This test is used as an aid in monitoring disease progression or recurrence; the specimen is blood.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
carcinoma in situ. Malignancy that arises from the cells of the vessel, gland, or organ of origin that remains confined to that site or has not invaded neighboring tissue. Carcinoma in situ codes are found in their own subchapter of neoplasms according to site.
corpus uteri. Main body of the uterus, which is located above the isthmus and below the openings of the fallopian tubes.
malignant. Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.neoplasm. New abnormal growth, tumor.
parametrium. Connective tissue between the uterus and the broad ligament.

**ICD-9-CM Diagnostic Codes**

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<td>183.0</td>
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<td>183.2</td>
<td>Malignant neoplasm of fallopian tube</td>
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<td>183.3</td>
<td>Malignant neoplasm of broad ligament of uterus</td>
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<td>Malignant neoplasm of parametrium of uterus</td>
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<td>Malignant neoplasm of round ligament of uterus</td>
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<td>Malignant neoplasm of other specified sites of uterine adnexa</td>
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<td>Malignant neoplasm of uterine adnexa, unspecified site</td>
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<td>198.82</td>
<td>Secondary malignant neoplasm of genital organs</td>
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Heterophile antibodies; screening

**Explanation**

These tests may be requested as a heterophile antibody screen and/or titer. Common brand names include Monospot, Monosticon, Dri-Dot. Heterophile antibodies are commonly tested to diagnose infectious mononucleosis. Blood specimen is serum or plasma. Method is agglutination. Code 86308 is a screen that identifies the presence of the antibody only; while 86309 is a titer that identifies the level of antibody present. Code 86310 reports a more specific methodology for testing heterophile titers using both beef cells and guinea pig kidneys.

**Coding Tips**

Code 86308 may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. To report antibodies to histoplasma, consult CPT code 86698. To report skin testing, consult CPT code 86510. To report antibodies to infectious agents, consult CPT codes 86602-86804. To report human growth hormone antibody, consult CPT code 86277.

**Terms To Know**

- **antibody**: Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **CLIA**: Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.
- **mononucleosis**: Elevated mononuclear white blood cells.

**ICD-9-CM Diagnostic Codes**

- **041.01** Streptococcus infection in conditions classified elsewhere and of unspecified site, group A — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
- **075** Infectious mononucleosis
- **462** Acute pharyngitis — (Use additional code to identify infectious organism)
- **772.6** Fetal and neonatal cutaneous hemorrhage — (Use additional code(s) to further specify condition)
- **780.60** Fever, unspecified
- **780.79** Other malaise and fatigue
- **782.1** Rash and other nonspecific skin eruption
- **782.7** Spontaneous ecchymoses

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4,16,70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each

Explanation
This test is an immunoassay for tumor antigen and may be requested by the specific antigen. Some of the more common tumor antigens include carbohydrate antigen 549 (CA 549), carbohydrate antigen 72-4 (CA 72-4, TAG 72), and carbohydrate antigen 50 (CA 50). Each of these antigens is specific for certain types of cancer. CA 549 is found in Stage IV metastatic breast cancer and is used primarily to evaluate response to therapy.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes

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<td>151.1</td>
<td>Malignant neoplasm of pylorus</td>
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<td>151.2</td>
<td>Malignant neoplasm of pyloric antrum</td>
</tr>
<tr>
<td>151.3</td>
<td>Malignant neoplasm of fundus of stomach</td>
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<tr>
<td>151.4</td>
<td>Malignant neoplasm of body of stomach</td>
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<td>151.5</td>
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<td>Malignant neoplasm of greater curvature of stomach, unspecified</td>
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<td>Malignant neoplasm of liver, primary</td>
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<td>Malignant neoplasm of intrahepatic bile ducts</td>
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<tr>
<td>157.1</td>
<td>Malignant neoplasm of body of pancreas</td>
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<tr>
<td>157.2</td>
<td>Malignant neoplasm of tail of pancreas</td>
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<td>157.3</td>
<td>Malignant neoplasm of pancreatic duct</td>
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<tr>
<td>157.4</td>
<td>Malignant neoplasm of islets of Langerhans — (Use additional code to identify any functional activity)</td>
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<td>162.0</td>
<td>Malignant neoplasm of trachea</td>
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<td>162.2</td>
<td>Malignant neoplasm of main bronchus</td>
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<td>162.3</td>
<td>Malignant neoplasm of upper lobe, bronchus, or lung</td>
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<td>Malignant neoplasm of middle lobe, bronchus, or lung</td>
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<td>162.5</td>
<td>Malignant neoplasm of lower lobe, bronchus, or lung</td>
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<td>162.8</td>
<td>Malignant neoplasm of other parts of bronchus or lung</td>
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<td>174.0</td>
<td>Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.1</td>
<td>Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.2</td>
<td>Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.3</td>
<td>Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.4</td>
<td>Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>174.5</td>
<td>Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>174.6</td>
<td>Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>175.0</td>
<td>Malignant neoplasm of nipple and areola of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<td>Malignant neoplasm of uterus, part unspecified</td>
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<td>180.0</td>
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<td>181</td>
<td>Malignant neoplasm of placenta</td>
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<tr>
<td>182.0</td>
<td>Malignant neoplasm of corpus uteri, except isthmus</td>
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<tr>
<td>182.1</td>
<td>Malignant neoplasm of isthmus</td>
</tr>
<tr>
<td>182.2</td>
<td>Malignant neoplasm of other specified sites of body of uterus</td>
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<tr>
<td>183.0</td>
<td>Malignant neoplasm of ovary — (Use additional code to identify any functional activity)</td>
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<tr>
<td>183.2</td>
<td>Malignant neoplasm of fallopian tube</td>
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<td>183.3</td>
<td>Malignant neoplasm of broad ligament of uterus</td>
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<tr>
<td>183.4</td>
<td>Malignant neoplasm of parametrium of uterus</td>
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<tr>
<td>183.5</td>
<td>Malignant neoplasm of round ligament of uterus</td>
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<tr>
<td>193</td>
<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
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<td>194.0</td>
<td>Malignant neoplasm of adrenal gland</td>
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<tr>
<td>195.2</td>
<td>Malignant neoplasm of abdomen</td>
</tr>
<tr>
<td>195.3</td>
<td>Malignant neoplasm of pelvis</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>86294</td>
<td>Coding and Payment Guide for Laboratory Services</td>
</tr>
</tbody>
</table>

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86337

86337 Insulin antibodies

Explanation
This test may be requested as insulin antibody or anti-insulin Ab. It usually includes testing for antibodies to both beef and pork insulin. Insulin dependent diabetics sometimes develop IgG antibodies to insulin, which can cause insulin resistance making larger doses of insulin necessary to achieve the same level of control. However, they may also develop IgA, IgM, IgD, and IgE antibodies. Most of these antibodies do not cause clinical problems. The specimen is serum. Method is radioimmunoassay (RIA), radiobinding assay, or enzyme linked immunosorbent assay (ELISA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers require a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
249.00 Secondary diabetes mellitus without mention of complication, not stated, or unspecified — (Use additional code to identify any associated insulin use: V58.67)
249.60 Secondary diabetes mellitus with neurological manifestations, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5) (Use additional code to identify any associated insulin use: V58.67)
249.61 Secondary diabetes mellitus with neurological manifestations, uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5) (Use additional code to identify any associated insulin use: V58.67)
249.70 Secondary diabetes mellitus with peripheral circulatory disorders, not stated as uncontrolled, or unspecified — (Use additional code to identify manifestation: 443.81, 785.4) (Use additional code to identify any associated insulin use: V58.67)
249.71 Secondary diabetes mellitus with peripheral circulatory disorders, uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4) (Use additional code to identify any associated insulin use: V58.67)
250.01 Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled
250.02 Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled
250.03 Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled
250.10 Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled
250.11 Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled
250.40 Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)
250.41 Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)
250.42 Diabetes with renal manifestations, type II or unspecified type, uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)
250.43 Diabetes with renal manifestations, type I [juvenile type], uncontrolled — (Use additional code to identify manifestation: 581.81, 583.81, 585.1-585.9)
250.53 Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled — (Use additional code to identify manifestation: 362.01-362.07, 365.44, 366.41, 369.00-369.9)
250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)
250.62 Diabetes with neurological manifestations, type II or unspecified type, uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)
250.63 Diabetes with neurological manifestations, type I [juvenile type], uncontrolled — (Use additional code to identify manifestation: 337.1, 353.5, 354.0-355.9, 357.2, 536.3, 713.5)
250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)
250.71 Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled — (Use additional code to identify manifestation: 443.81, 785.4)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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86340  
Intrinsic factor antibodies

**Explanation**
This test may be requested as intrinsic factor (IF) antibody. There are two types of IF antibody. Type I, blocking antibody, is the more common of the two. It prevents binding of B12 with intrinsic factor but will not react with complex intrinsic factor. Type II antibody, binding antibody, reacts with either free of complex IF. The specimen is serum. Method is radioimmunoassay (RIA).

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**ICD-9-CM Diagnostic Codes**
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>203.10</td>
<td>Plasma cell leukemia, without mention of having achieved remission</td>
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<tr>
<td>203.11</td>
<td>Plasma cell leukemia in remission</td>
</tr>
<tr>
<td>203.12</td>
<td>Plasma cell leukemia, in relapse</td>
</tr>
<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.01</td>
<td>Acute lymphoid leukemia in remission</td>
</tr>
<tr>
<td>204.02</td>
<td>Acute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.11</td>
<td>Chronic lymphoid leukemia in remission</td>
</tr>
<tr>
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<td>Chronic lymphoid leukemia, in relapse</td>
</tr>
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<td>204.20</td>
<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.21</td>
<td>Subacute lymphoid leukemia in remission</td>
</tr>
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<td>204.22</td>
<td>Subacute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.80</td>
<td>Other lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.90</td>
<td>Unspecified lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.00</td>
<td>Acute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.20</td>
<td>Subacute myeloid leukemia, without mention of having achieved remission</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
86341
86341  Islet cell antibody

Explanation
This test detects the formation of antibodies to the pancreatic islet cell, which causes destruction of those cells and, therefore, loss of an individual's ability to produce insulin. The presence of islet cell antibodies are helpful in establishing an initial diagnosis of Type I, insulin-dependent diabetes mellitus (IDDM) and in identifying those individuals at high risk of developing IDDM. It is also useful in identifying potential transplant donors for pancreatic islet cells. The specimen is serum. Various methods are used.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Category 249 Secondary diabetes mellitus includes 20 codes that parallel category 250. Similarly, all of the manifestation codes that apply to category 250 also apply to 249. In the same manner, instructional notes at subcategories 249.4-249.8 direct the coder to "use additional code to identify manifestation." Multiple codes may be required to report secondary diabetes and associated conditions. Sequencing of category 249 codes depends on the circumstances of the encounter, the documentation in the medical record and official coding advice. Category 249 includes drug-induced or chemical-induced diabetes mellitus. Use an additional E code to identify the causal drug or substance. Report code V58.67 to identify any associated insulin use. The fifth-digit assignment for categories 249 and 250 indicates both types of diabetes and the status of disease control. The physician MUST document the type of diabetes in order to assign a fifth digit of "1" or "3," which indicates type I, (juvenile type). The status of uncontrolled MUST also be stated by the physician in order to assign a fifth digit indicating uncontrolled status. When the physician specifically states that the patient has uncontrolled diabetes, then and only then, can a fifth-digit assignment of 2 or 3 be made.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
diabetes mellitus. Endocrine disease manifested by high blood glucose levels and resulting in the inability to successfully metabolize carbohydrates, proteins, and fats, due to defects in insulin production and secretion, insulin action, or both.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
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</table>
86343 Leukocyte histamine release test (LHR)

Explanation
This test is performed to quantify the levels of histamine. The specimen is plasma. Urine is collected over a 24-hour period. Methods are fluorometric, radioenzymatic, and immunoassay. Allergic and non-allergic intolerance to drugs, insect venom, paints or cosmetics, as well as heat or cold, or stress may induce histamine release. By using the histamine release test it is possible to identify a broad spectrum of allergies.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
anaphylactic reaction. Type of life threatening, whole body allergic reaction to a substance that has become an allergen. Body tissues in various areas of the body immediately release histamine and other substances that can result in a tightening of the airways making breathing difficult, in addition to other symptoms. When the reaction is due to serum, report this condition with a code from ICD-9-CM category 999.4 or 999.5. Synonym(s): anaphylactic shock.
dermatitis. Inflammation of the skin.
plasma. Liquid portion of the blood, lymph, or milk.

ICD-9-CM Diagnostic Codes
691.8 Other atopic dermatitis and related conditions
708.3 Dermatographic urticaria
989.5 Toxic effect of venom — (Use additional code to specify the nature of the toxic effect)
995.0 Other anaphylactic reaction — (Use additional E code to identify external cause, such as: E930-E949)
995.60 Anaphylactic reaction due to unspecified food
995.61 Anaphylactic reaction due to peanuts
995.62 Anaphylactic reaction due to crustaceans
995.63 Anaphylactic reaction due to fruits and vegetables
995.64 Anaphylactic reaction due to tree nuts and seeds
995.65 Anaphylactic reaction due to fish
995.66 Anaphylactic reaction due to food additives
995.67 Anaphylactic reaction due to milk products
995.68 Anaphylactic reaction due to eggs

<table>
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<th>Non-Fac PE</th>
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</table>

CCI Version 20.0
No CCI Edits apply to this code.
**86353**

86353  Lymphocyte transformation, mitogen (phytomitogen) or antigen induced blastogenesis

**Explanation**

This test may also be requested as lymphocyte mitogen response test or phytohemagglutinin (PHA) stimulation. Lymphocytes are normally produced early in an immune response. This test is used to determine the adequacy of early immune response using nonspecific mitogens or specific antigens as transforming agents capable of inducing blastogenesis. This process involves isolation of lymphocytes in peripheral blood and culture of the isolated lymphocytes in microtiter plates for three to seven days. Prior to harvest of cultured cells, the lymphocytes are pulsed with tritiated thymidine. Incorporated thymidine is measured. Control values are used to calculate a stimulation index.

**Coding Tips**

To report cellular function assay involving stimulation and detection of biomarker consult 86352. To report lymphocytes immunophenotyping, consult CPT codes 88342 and 88346 for microscopic techniques. To report malaria antibodies, consult CPT code 86750.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>042</td>
<td>Unspecified hypogammaglobulinemia — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
</tr>
<tr>
<td>279.00</td>
<td>Selective IgA immunodeficiency — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
</tr>
<tr>
<td>279.01</td>
<td>Selective IgM immunodeficiency — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>279.02</td>
<td>Other selective immunoglobulin deficiencies — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Congenital hypogammaglobulinemia — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Immunodeficiency with increased IgM — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Unspecified immunodeficiency with predominant T-cell defect — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>DiGeorge’s syndrome — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Wiskott-Aldrich syndrome — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Nezelof’s syndrome — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Unspecified immunity deficiency — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>Autoimmune disease, not elsewhere classified — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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<td>279.14</td>
<td>Other specified disorders involving the immune mechanism — (Use additional code to identify any associated intellectual disabilities) (Use additional code for associated manifestations)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.8

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86355

86355  B cells, total count

Examination
This test may also be referred to as a B lymphocyte assay. B cells, also known as B lymphocytes, are responsible for making antibodies. B cells develop and mature in the bone marrow. An increased B cell count may be indicative of such diseases as chronic lymphocytic leukemia, multiple myeloma, Waldenström's macroglobulinemia, and DiGeorge syndrome. Decreased B cell count may indicate such conditions as acute lymphoblastic leukemia and congenital and acquired immunoglobulin deficiency disorders. The specimen is whole blood. The quantitative number of B lymphocytes is determined using flow cytometry.

Coding Tips
Do not report codes 88187-88189 separately for the interpretation of this service. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
leukemia. Malignancy of the blood and blood-forming organs manifested by abnormal proliferation or development of leukocytes and their developmental precursors in the blood and bone marrow. Acute and chronic classifications in leukemia refer to the degree that the malignant cells have differentiated and not to the length of the disease itself. The predominant type of cell involved, whether myelogenous or lymphocytic, also determines classification.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>202.85</td>
<td>Other malignant lymphomas of lymph nodes of inguinal region and lower limb</td>
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<tr>
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<td>Multiple myeloma in remission</td>
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<td>203.02</td>
<td>Multiple myeloma, in relapse</td>
</tr>
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<td>Plasma cell leukemia, without mention of having achieved remission</td>
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<tr>
<td>203.11</td>
<td>Plasma cell leukemia in remission</td>
</tr>
<tr>
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<td>Plasma cell leukemia, in relapse</td>
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<td>Other immunoproliferative neoplasms, without mention of having achieved remission</td>
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</tbody>
</table>
**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>079.51</td>
<td>Human T-cell lymphophotrophic virus, type 1 (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
</tr>
<tr>
<td>079.53</td>
<td>Human immunodeficiency virus, type 2 (HIV 2), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
</tr>
<tr>
<td>099.3</td>
<td>Reiter's disease — (Use additional code for associated conditions: 372.33, 711.1)</td>
</tr>
<tr>
<td>150.8</td>
<td>Malignant neoplasm of other specified part of esophagus</td>
</tr>
<tr>
<td>151.8</td>
<td>Malignant neoplasm of other specified sites of stomach</td>
</tr>
<tr>
<td>153.8</td>
<td>Malignant neoplasm of other specified sites of large intestine</td>
</tr>
<tr>
<td>154.0</td>
<td>Malignant neoplasm of rectosigmoid junction</td>
</tr>
<tr>
<td>154.1</td>
<td>Malignant neoplasm of rectum</td>
</tr>
<tr>
<td>174.8</td>
<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>175.9</td>
<td>Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
</tr>
<tr>
<td>183.8</td>
<td>Malignant neoplasm of other specified sites of uterine adnexa</td>
</tr>
<tr>
<td>185</td>
<td>Malignant neoplasm of prostate</td>
</tr>
<tr>
<td>200.00</td>
<td>Reticulosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.10</td>
<td>Lymphosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.20</td>
<td>Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.30</td>
<td>Marginal zone lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>202.20</td>
<td>Sezary's disease, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>202.30</td>
<td>Malignant histiocytosis, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>238.71</td>
<td>Essential thrombocytopenia</td>
</tr>
<tr>
<td>238.77</td>
<td>Post-transplant lymphoproliferative disorder [PTLD] — (Code first complications of transplant (996.80-996.89))</td>
</tr>
<tr>
<td>238.79</td>
<td>Other lymphatic and hematopoietic tissues</td>
</tr>
<tr>
<td>259.2</td>
<td>Carcinoid syndrome</td>
</tr>
<tr>
<td>273.1</td>
<td>Monoclonal paraproteinemia — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>273.3</td>
<td>Macroglobulinemia — (Use additional code to identify any associated intellectual disabilities)</td>
</tr>
<tr>
<td>646.30</td>
<td>Pregnancy complication, recurrent pregnancy loss, unspecified as to episode of care — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>646.31</td>
<td>Pregnancy complication, recurrent pregnancy loss, with or without mention of antepartum condition — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>646.33</td>
<td>Pregnancy complication, recurrent pregnancy loss, antepartum condition or complication — (Use additional code to further specify complication)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>86357</td>
<td>Natural killer (NK) cells, total count</td>
<td></td>
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<tr>
<td>174.8</td>
<td>Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
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<tr>
<td>175.9</td>
<td>Malignant neoplasm of other and unspecified sites of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)</td>
<td></td>
</tr>
<tr>
<td>183.8</td>
<td>Malignant neoplasm of other specified sites of uterine adnexa</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>Malignant neoplasm of prostate</td>
<td></td>
</tr>
<tr>
<td>200.00</td>
<td>Reticulosarcoma, unspecified site, extranodal and solid organ sites</td>
<td></td>
</tr>
<tr>
<td>200.10</td>
<td>Lymphosarcoma, unspecified site, extranodal and solid organ sites</td>
<td></td>
</tr>
<tr>
<td>200.20</td>
<td>Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites</td>
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<tr>
<td>200.30</td>
<td>Marginal zone lymphoma, unspecified site, extranodal and solid organ sites</td>
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</tr>
<tr>
<td>202.20</td>
<td>Sezary's disease, unspecified site, extranodal and solid organ sites</td>
<td></td>
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<tr>
<td>202.30</td>
<td>Malignant histiocytosis, unspecified site, extranodal and solid organ sites</td>
<td></td>
</tr>
<tr>
<td>238.71</td>
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<td>238.77</td>
<td>Post-transplant lymphoproliferative disorder [PTLD] — (Code first complications of transplant (996.80-996.89))</td>
<td></td>
</tr>
<tr>
<td>238.79</td>
<td>Other lymphatic and hematopoietic tissues</td>
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<tr>
<td>259.2</td>
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<td></td>
</tr>
<tr>
<td>273.1</td>
<td>Monoclonal paraproteinemia — (Use additional code to identify any associated intellectual disabilities)</td>
<td></td>
</tr>
<tr>
<td>273.3</td>
<td>Macroglobulinemia — (Use additional code to identify any associated intellectual disabilities)</td>
<td></td>
</tr>
<tr>
<td>646.30</td>
<td>Pregnancy complication, recurrent pregnancy loss, unspecified as to episode of care — (Use additional code to further specify complication)</td>
<td></td>
</tr>
<tr>
<td>646.31</td>
<td>Pregnancy complication, recurrent pregnancy loss, with or without mention of antepartum condition — (Use additional code to further specify complication)</td>
<td></td>
</tr>
<tr>
<td>646.33</td>
<td>Pregnancy complication, recurrent pregnancy loss, antepartum condition or complication — (Use additional code to further specify complication)</td>
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</tr>
</tbody>
</table>

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**86359-86361**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>86359</td>
<td>T cells; total count</td>
</tr>
<tr>
<td>86360</td>
<td>absolute CD4 and CD8 count, including ratio</td>
</tr>
<tr>
<td>86361</td>
<td>absolute CD4 count</td>
</tr>
</tbody>
</table>

**Explanation**

Code 86359 may also be referred to as T-cell assay, T-cell analysis, or T-cell study. It is used to quantitate total T-cell lymphocytes without providing absolute counts of the different types of lymphocytes. Examples of different types of lymphocytes included in the total count are CD3, CD4, CD8, CD20, CD38, etc. The specimen is whole blood. Whole blood is added to fluorochrome-labeled antibodies, also referred to as monoclonal antibodies, which bind specifically to cell surface antigens on lymphocytes. This is used in conjunction with flow cytometry to obtain the total T-cell count. This test is used to type and classify different types of lymphomas and lymphocytic leukemias as well as to monitor immunodeficiency states, including HIV infections. Code 86360 may also be requested as T4/T8 ratio, CD4/CD8 ratio, T-cell assay for CD4/CD8. It is used to quantitate CD4 and CD8 specifically, and from those counts to obtain a CD4 to CD8 ratio. Whole blood is added to fluorochrome-labeled antibodies, also referred to as monoclonal antibodies, which bind specifically to cell surface antigens on lymphocytes. This is used in conjunction with flow cytometry to obtain the CD4 and CD8 cell counts. This test is used primarily in staging HIV infection and monitoring the effects of treatment. It may also be useful in diagnosing and monitoring congenital immunodeficiencies. Code 86361 may also be requested as T-cell assay for CD4. The specimen. Whole blood is added to fluorochrome-labeled antibodies, also referred to as monoclonal antibodies, which bind specifically to cell surface antigens on lymphocytes. This is used in conjunction with flow cytometry to obtain the CD4 cell count. This test is used primarily in staging HIV infection and monitoring the effects of treatment. It may also be useful in diagnosing and monitoring congenital immunodeficiencies.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other licensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

HIV. Human immunodeficiency virus. NCD References: 190.9, 190.13, 190.14. specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042</td>
<td>Human immunodeficiency virus (HIV) — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>200.51</td>
<td>Primary central nervous system lymphoma, lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>200.52</td>
<td>Primary central nervous system lymphoma, intrathoracic lymph nodes</td>
</tr>
<tr>
<td>200.53</td>
<td>Primary central nervous system lymphoma, intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.70</td>
<td>Peripheral T-cell lymphoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>202.71</td>
<td>Peripheral T-cell lymphoma, lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>202.72</td>
<td>Peripheral T-cell lymphoma, intrathoracic lymph nodes</td>
</tr>
<tr>
<td>202.73</td>
<td>Peripheral T-cell lymphoma, intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.74</td>
<td>Peripheral T-cell lymphoma, lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>202.75</td>
<td>Peripheral T-cell lymphoma, lymph nodes of inguinal region and lower limb</td>
</tr>
<tr>
<td>202.76</td>
<td>Peripheral T-cell lymphoma, intrapelvic lymph nodes</td>
</tr>
<tr>
<td>202.77</td>
<td>Peripheral T-cell lymphoma, spleen</td>
</tr>
<tr>
<td>202.78</td>
<td>Peripheral T-cell lymphoma, lymph nodes of multiple sites</td>
</tr>
<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.02</td>
<td>Acute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.12</td>
<td>Chronic lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.20</td>
<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.22</td>
<td>Subacute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>V08</td>
<td>Asymptomatic human immunodeficiency virus (HIV) infection status — (This code is only to be used when no HIV infection symptoms or conditions are present. If any HIV infection symptoms or conditions are present, see code 042)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>80500-80502</td>
<td>Also not with 86360: 86361</td>
</tr>
</tbody>
</table>

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Stem cells (ie, CD34), total count

Explanation
Many different subsets of stem cells are present in the blood and bone marrow. Some stem cell subtypes are able to differentiate into several cell types. These are called multipotent or multilineage stem cells. Multipotent stem cells have the capacity to differentiate into myeloid, lymphoid, erythroid, and megakaryocytic lineages. Other stem cell subtypes are lineage specific and differentiate only to a single cell type. While there is no test to specifically identify the multipotent stem cells, it has been discovered that high counts of progenitor cells with surface antigen CD34+ enhance engraftment in stem cell transplant recipients. This test quantifies the total number of specific stem cells subtypes in the body, such as stem cells with surface antigen CD34+ cells. Periodic blood samples are obtained to determine total amounts of circulating CD34+ cells. Flow cytometry is used to identify specific stem cell subtypes and to determine total counts of CD34+ cells. Using this test the physician can determine when the total number of circulating stem cells containing CD34+ is sufficient to begin harvesting stem cells for subsequent transplant.

Coding Tips
Do not report codes 88187-88189 separately for the interpretation of this service.

ICD-9-CM Diagnostic Codes
204.00  Acute lymphoid leukemia, without mention of having achieved remission
204.01  Acute lymphoid leukemia in remission
204.02  Acute lymphoid leukemia, in relapse
204.10  Chronic lymphoid leukemia, without mention of having achieved remission
204.11  Chronic lymphoid leukemia in remission
204.12  Chronic lymphoid leukemia, in relapse
204.20  Subacute lymphoid leukemia, without mention of having achieved remission
204.21  Subacute lymphoid leukemia in remission
204.22  Subacute lymphoid leukemia, in relapse
205.00  Acute myeloid leukemia, without mention of having achieved remission
205.01  Acute myeloid leukemia in remission
205.02  Acute myeloid leukemia, in relapse
205.10  Chronic myeloid leukemia, without mention of having achieved remission
205.11  Chronic myeloid leukemia in remission
205.12  Chronic myeloid leukemia, in relapse
205.20  Subacute myeloid leukemia, without mention of having achieved remission
205.21  Subacute myeloid leukemia in remission
205.22  Subacute myeloid leukemia, in relapse
205.30  Myeloid sarcoma, without mention of having achieved remission
205.31  Myeloid sarcoma in remission
205.32  Myeloid sarcoma, in relapse
205.80  Other myeloid leukemia, without mention of having achieved remission
205.81  Other myeloid leukemia in remission
205.82  Other myeloid leukemia, in relapse
205.90  Unspecified myeloid leukemia, without mention of having achieved remission
205.91  Unspecified myeloid leukemia in remission
205.92  Unspecified myeloid leukemia, in relapse
V42.82  Peripheral stem cells replaced by transplant
V58.11  Encounter for antineoplastic chemotherapy
V58.69  Long-term (current) use of other medications
V67.2  Chemotherapy follow-up examination

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86376

Microsomal antibodies (e.g., thyroid or liver-kidney), each

Explanation
This test is performed to determine the presence of anti-thyroid microsomal antibodies. The specimen is serum. A hemagglutination test for thyroid antigens is used and, if that test is positive, it is followed by a fluorescent scan to show a decrease or absence of thyroid-stable iodine. Other methods include ELISA (enzyme linked immuno sorbent assay) or particle agglutination (PA). The anti-microsomal antibody or microsomal antibody test may be used to diagnose conditions such as Hashimoto's thyroiditis and other autoimmune disorders. Hashimoto's disease is an autoimmune thyroid disorder characterized by the production of antibodies in response to thyroid antigens. Normal thyroid structures are replaced by lymphocytes and lymphoid germinal centers.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
agglutination. Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
193 Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)
226 Benign neoplasm of thyroid glands — (Use additional code to identify any functional activity)
240.0 Goiter, specified as simple
240.9 Goiter, unspecified
241.0 Nontoxic unilodular goiter
241.1 Nontoxic multinodular goiter
241.9 Unspecified nontoxic nodular goiter
242.00 Toxic diffuse goiter without mention of thyrotoxic crisis or storm
242.01 Toxic diffuse goiter with mention of thyrotoxic crisis or storm
242.10 Toxic uninodular goiter without mention of thyrotoxic crisis or storm
242.11 Toxic uninodular goiter with mention of thyrotoxic crisis or storm
242.40 Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm
242.41 Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm
242.80 Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)
242.81 Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)
242.90 Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm
242.91 Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm
243 Congenital hypothyroidism — (Use additional code to identify associated intellectual disabilities)
244.3 Other iatrogenic hypothyroidism — (Use additional E code to identify drug)
244.8 Other specified acquired hypothyroidism
245.0 Acute thyroiditis — (Use additional code to identify organism)
245.1 Subacute thyroiditis
245.2 Chronic lymphocytic thyroiditis
245.4 Iatrogenic thyroiditis — (Use additional code to identify cause)
245.8 Other and unspecified chronic thyroiditis
252.1 Hyperparathyroidism
281.0 Pernicious anemia
775.3 Neonatal thyrotoxicosis — (Use additional code(s) to further specify condition)
794.5 Nonspecific abnormal results of thyroid function study

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86382
86382  Neutralization test, viral

Explanation
Tissue samples may be collected by biopsy. Fluorescent dye may be used to identify the target virus directly from clinical specimens or tissue. Neutralization tests are used in various serological tests to identify antibodies to the target virus in serum (i.e., Herpes simplex virus). The identification aids in the diagnosis of diseases caused by the virus. Specimen type varies.

Coding Tips
Biopsy procedures for tissue samples may be billed separately when performed by the pathologist. See the CPT index, main term biopsy to locate the correct surgical code. Code 052.2 Postvaricella myelitis, was created in order to provide coders a means with which to uniquely identify this condition, also known as postchickenpox myelitis. Code category 058 reports specific herpesviruses not specifically classifiable elsewhere to type. Herpesvirus infections, which are classifiable elsewhere in chapter 1, include cytomegalovirus/HHV-5 (078.5), Epstein-Barr/HHV-4 (075), and other forms of human herpesviruses (categories 052-054).

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
biopsy. Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.
herpes. Inflammatory diseases of the skin caused by the herpes virus.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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<tr>
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<td>0.00</td>
<td>0.00</td>
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</table>
Nuclear Matrix Protein 22 (NMP22), qualitative

Explanation
Nuclear Matrix Protein 22 (NMP-22) is a tumor indicator for bladder cancer when found in significant quantities in a urine specimen. If a tumor is present, NMP-22, which is found within a cell’s nucleus, increases 25 fold causing the NMP22 to shed into the urine.

Coding Tips
If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know
- laboratory: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
- malignant: Any condition tending to progress toward death, specifically an invasive tumor with a loss of cellular differentiation that has the ability to spread or metastasize to other areas in the body.
- qualitative: To determine the nature of the component of substance.
- specimen: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
- 188.0 Malignant neoplasm of trigone of urinary bladder
- 188.1 Malignant neoplasm of dome of urinary bladder
- 188.2 Malignant neoplasm of lateral wall of urinary bladder
- 188.3 Malignant neoplasm of anterior wall of urinary bladder
- 188.4 Malignant neoplasm of posterior wall of urinary bladder
- 188.5 Malignant neoplasm of bladder neck
- 188.6 Malignant neoplasm of ureteric orifice
- 188.7 Malignant neoplasm of urachus
- 188.8 Malignant neoplasm of other specified sites of bladder
- 188.9 Malignant neoplasm of bladder, part unspecified
- 189.0 Malignant neoplasm of kidney, except pelvis
- 189.1 Malignant neoplasm of renal pelvis
- 189.2 Malignant neoplasm of ureter
- 189.3 Malignant neoplasm of urethra
- 189.4 Malignant neoplasm of paraurethral glands

<table>
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<th>Fac PE</th>
<th>Malpractice</th>
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</tbody>
</table>
86430-86431

86430  Rheumatoid factor; qualitative
86431  quantitative

Explanation
Code 86430 may be ordered as rheumatoid antibody (RA) factor, arthritis screen, or rheumatoid factor (RF). The test is most significantly used as a qualitative measurement in evaluating patients with inflammatory polyarthritis. Code 86431 may be ordered as rheumatoid antibody (RA) titer, arthritis screen, or rheumatoid factor (RF) titer. The specimen is serum and methodology is by latex agglutination, ELISA, or nephelometry for both tests. Code 86431 is most significantly used as a quantitative measurement in evaluating patients with inflammatory polyarthritis. The presence or quantity of RF is not by itself usually considered sufficient to establish a diagnosis of rheumatoid arthritis, but as a contributing factor or a prognostic marker to a diagnosis.

Coding Tips
Rheumatoid arthritis (714.0) is a chronic, systemic inflammatory disease of unknown etiology, characterized by a variable but prolonged course with exacerbations and remissions of joint pains and swelling. In early stages, the disease attacks the joints of the hands and feet. As the disease progresses, more joints become involved. Also known as primary progressive arthritis and proliferative arthritis, the disease often leads to progressive deformities, which may develop rapidly, and produce permanent disability. Onset, distribution, degree of severity, and rate of progressions, as clinical manifestations of rheumatoid arthritis are highly variable. Joint disease is the major manifestation; systemic involvement (spleen, liver, eyes, etc.) is rare. Use an additional code to identify manifestations of rheumatoid arthritis (714.0) such as myopathy (359.6) and polyneuropathy (357.1) if documented. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes
015.01  Tuberculosis of vertebral column, bacteriological or histological examination not done — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)

<table>
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<tr>
<th>Work Value</th>
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<th>Malpractice</th>
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</table>
ICD-9-CM Diagnostic Codes

**Inhalation of an airborne agent.**

Chronic variable disease caused by bacteria usually spread by inhalation and the production of antibodies.

**Substance inducing sensitivity or triggering an immune response**

Terms To Know:

- **tuberculosis.** Chronic variable disease caused by bacteria usually spread by inhalation of an airborne agent.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010.00</td>
<td>Primary tuberculous complex, confirmation unspecified</td>
</tr>
<tr>
<td>010.01</td>
<td>Primary tuberculous complex, bacteriological or histological examination not done</td>
</tr>
</tbody>
</table>

**Coding Tips**

To report TB skin test, consult CPT code 86580. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400–36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Infectious diseases caused primarily by the acid fast bacilli Mycobacterium tuberculosis, but also M. bovis, M. africanum, M. leprae, and other variants, are included in this subchapter.

**Explanation**

Blood tests known as Interferon-Gamma Release Assays (IGRA) are used to diagnose both latent (non-active) tuberculosis (TB) infection and tuberculosis disease and may be performed instead of a skin test. The blood test can be accomplished in a single patient visit and, unlike the skin test, its results do not require subjective interpretation of a health worker. White blood cells from most individuals infected with Mycobacterium tuberculosis release interferon-gamma when mixed with substances that can produce an immune response (antigens) derived from M. tuberculosis; IGRA measure an individual's immune reactivity. Testing is conducted by mixing fresh blood samples with antigens and controls; antigens, methods of testing, and criteria for interpretation differ. While both codes describe cell-mediated immunity (CMI) antigen response measurement, code 86480 is specific to gamma interferon, while 86481 specifies the enumeration of gamma interferon-producing T-cells in cell suspension.

**Terms To Know**

- **antigen.** Substance inducing sensitivity or triggering an immune response and the production of antibodies.

**CCI Version 20.0**

Also not with 86480: 86580, 95017, 95018, 95024-95028

Also not with 86481: 86359, 86480

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86485

86485 Skin test; candida

Explanation
This test may be ordered as candida delayed hypersensitivity testing (DHT or DHR). The methods are: the intradermal test and the prick test. Candida albicans is a common environmental yeast, and this testing is usually a control for anergy or immunocompetence. A standardized concentration of the yeast is introduced into the skin of the arm, usually by needle or skin prick. The test site is examined within 30 minutes and again at 24, 48, and 72-hour intervals. Evidence of a reaction is recorded.

Coding Tips
To report antibody, candida, consult CPT code 86628. Candidiasis is classified to ICD-9-CM category 112. Assign a fourth digit to indicate site of infection.

Terms To Know
Candidiasis. Yeast infection caused by the fungus Candida albicans. It commonly occurs in the vagina, but affects any moist skin or mucus membrane. Report candidiasis with a code from ICD-9-CM category 112.

ICD-9-CM Diagnostic Codes
112.0 Candidiasis of mouth — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.2 Candidiasis of other urogenital sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.3 Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.4 Candidiasis of lung — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.5 Disseminated candidiasis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.81 Candidal endocarditis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.82 Candidal otitis externa — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.83 Candidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.84 Candidiasis of the esophagus — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.85 Candidiasis of the intestine — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.89 Other candidiasis of other specified sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.9 Candidiasis of unspecified site — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

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<th>Work Value</th>
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</table>
86490 Skin test; coccidioidomycosis

Explanation
This test may be ordered as coccidioides delayed hypersensitivity testing (DHT or DHR). It may also be ordered as cocci skin test. Two testing methods are: the intradermal test and the prick test. A standardized concentration of the antigen is introduced into the skin of the arm, usually by needle or skin prick. The test site is examined within 30 minutes and again at 24, 48, and 72-hour intervals. Evidence of a reaction is recorded. This test has limited value diagnostically and usually provides supporting information only.

Coding Tips
Coccidioidomycosis is classified to ICD-9-CM category 114. Assign a fourth digit to indicate the form of the disease such as primary coccidioidomycosis (pulmonary) (114.0) or coccidioidal meningitis (114.2).

Terms To Know
coccidioidomycosis. Condition where fungus invades the body producing fever and pulmonary difficulties.

ICD-9-CM Diagnostic Codes
114.0 Primary coccidioidomycosis (pulmonary) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.1 Primary extrapulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.2 Coccidioidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.3 Other forms of progressive coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.4 Chronic pulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.5 Unspecified pulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.9 Unspecified coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
115.00 Histoplasma capsulatum, without mention of manifestation
115.01 Histoplasma capsulatum meningitis
115.02 Histoplasma capsulatum retinitis
115.03 Histoplasma capsulatum pericarditis
115.04 Histoplasma capsulatum endocarditis
115.05 Histoplasma capsulatum pneumonia
115.09 Histoplasma capsulatum, with mention of other manifestation
115.10 Histoplasma duboisi, without mention of manifestation
115.11 Histoplasma duboisi meningitis
115.12 Histoplasma duboisi retinitis
115.13 Histoplasma duboisi pericarditis
115.14 Histoplasma duboisi endocarditis
115.15 Histoplasma duboisi pneumonia
115.19 Histoplasma duboisi with mention of other manifestation
115.90 Unspecified Histoplasmosis without mention of manifestation
115.91 Unspecified Histoplasmosis meningitis
115.92 Unspecified Histoplasmosis retinitis
115.93 Unspecified Histoplasmosis pericarditis
115.94 Unspecified Histoplasmosis endocarditis
115.95 Unspecified Histoplasmosis pneumonia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
86510

86510  Skin test; histoplasmosis

Explanation
This test may be ordered as histoplasma skin test. Two testing methods are: the intradermal test and the prick test. A standardized concentration of antigen is introduced into the skin of the arm, usually by needle or skin prick. The site is examined within 30 minutes and again at 24, 48, and 72-hour intervals. Evidence of a reaction is recorded. This test has limited value diagnostically.

Coding Tips
Histoplasmosis is classified to ICD-9-CM category 115. The fourth digit 0 indicates infection with histoplasmosis capsulatum; the fourth digit 1 indicates infection with histoplasmosis duboisii. The fifth-digit subclassification indicates the manifestation of the disease.

Terms To Know
- antigen: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- histoplasmosis: Infection resulting from inhalation of fungal spores, causing acute pneumonia, an influenza-like illness, or a disseminated disease of the reticuloendothelial system. In immunocompromised patients it can reactivate, affecting the lungs, meninges, heart, peritoneum, and adrenals.

ICD-9-CM Diagnostic Codes
- 115.00  Histoplasma capsulatum, without mention of manifestation
- 115.01  Histoplasma capsulatum meningitis
- 115.02  Histoplasma capsulatum retinitis
- 115.03  Histoplasma capsulatum pericarditis
- 115.04  Histoplasma capsulatum endocarditis
- 115.05  Histoplasma capsulatum pneumonia
- 115.09  Histoplasma capsulatum, with mention of other manifestation
- 115.10  Histoplasma duboisii, without mention of manifestation
- 115.11  Histoplasma duboisii meningitis
- 115.12  Histoplasma duboisii retinitis
- 115.13  Histoplasma duboisii pericarditis
- 115.14  Histoplasma duboisii endocarditis
- 115.15  Histoplasma duboisii pneumonia
- 115.19  Histoplasma duboisii with mention of other manifestation
- 115.90  Unspecified Histoplasmosis without mention of manifestation
- 115.91  Unspecified Histoplasmosis meningitis
- 115.92  Unspecified Histoplasmosis retinitis
- 115.93  Unspecified Histoplasmosis pericarditis
- 115.94  Unspecified Histoplasmosis endocarditis
- 115.95  Unspecified Histoplasmosis pneumonia
- 115.99  Unspecified Histoplasmosis with mention of other manifestation

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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
This test may be ordered as TB skin test, TB delayed hypersensitivity testing (DHT or DHR), Tuberculin skin test, Mantoux test, or purified protein derivative test (PPD). A standardized concentration of tuberculin PPD is introduced into the skin of the arm. The method is intradermal. The test may screen individuals in high-risk circumstances, or as routine surveillance among certain populations regularly exposed (i.e., health care workers). Patients showing certain signs or symptoms are also tested. Culture extracts of tuberculin proteins in a test dosage is injected intradermally (forearm). The test site is examined at 24, 48, and 72-hour intervals for evidence of induration. Evidence of a reaction is recorded.

Coding Tips
To report TB antigen response consult CPT code 86480. To report TB culture consult CPT code 87116. Infectious diseases caused primarily by the acid fast bacilli Mycobacterium tuberculosis, but also M. bovis, M. africanum, M. leprae, and other variants, are included in this subchapter. Infection occurs almost exclusively through the respiratory system by inhalation of the tubercule bacilli from an infected host. The disease spreads from the primary lesion in the lung to other parts of the body, such as bones, joints, kidneys, the bladder, the eyes, and even the pericardium of the heart. Tuberculosis is first coded according to site or type. The fifth-digit subclassification codes for this category are assigned according to the method of determining the positive diagnosis of tuberculosis. Late effects of tuberculosis are coded to category 137.

ICD-9-CM Diagnostic Codes
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010.00</td>
<td>Primary tuberculous complex, confirmation unspecified</td>
</tr>
<tr>
<td>010.01</td>
<td>Primary tuberculous complex, bacteriological or histological examination not done</td>
</tr>
<tr>
<td>010.02</td>
<td>Primary tuberculous complex, bacteriological or histological examination unknown (at present)</td>
</tr>
<tr>
<td>010.03</td>
<td>Primary tuberculous complex, tubercle bacilli found (in sputum) by microscopy</td>
</tr>
<tr>
<td>010.04</td>
<td>Primary tuberculous complex, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture</td>
</tr>
<tr>
<td>011.60</td>
<td>Tuberculosis pneumonia (any form), confirmation unspecified — (Use additional code to identify any associated silicosis, 502)</td>
</tr>
<tr>
<td>011.61</td>
<td>Tuberculosis pneumonia (any form), bacteriological or histological examination not done — (Use additional code to identify any associated silicosis, 502)</td>
</tr>
<tr>
<td>011.62</td>
<td>Tuberculosis pneumonia (any form), bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)</td>
</tr>
<tr>
<td>015.02</td>
<td>Tuberculosis of vertebral column, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.03</td>
<td>Tuberculosis of vertebral column, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.04</td>
<td>Tuberculosis of vertebral column, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.12</td>
<td>Tuberculosis of hip, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.24</td>
<td>Tuberculosis of knee, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.25</td>
<td>Tuberculosis of knee, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.26</td>
<td>Tuberculosis of knee, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods (inoculation of animals) — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.50</td>
<td>Tuberculosis of limb bones, confirmation unspecified — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.53</td>
<td>Tuberculosis of limb bones, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
<tr>
<td>015.63</td>
<td>Tuberculosis of mastoid, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86590 Streptokinase, antibody

**Explanation**
This test is commonly ordered as ASO. The specimen is serum. The test is useful for detection of antibody to an extracellular antigenic product of group A streptococci and commonly used to detect previous exposure to group A strep. The test may be performed by latex agglutination or enzyme-linked immunosorbent assay (ELISA).

**Coding Tips**
To report antibodies to infectious agents, consult CPT codes 86602-86804. To report streptolysin O antibody, see antistreptolysin O codes 86060 and 86063.

**Terms To Know**
- **agglutination.** Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>410.00</td>
<td>Acute myocardial infarction of anterolateral wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.01</td>
<td>Acute myocardial infarction of anterolateral wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.02</td>
<td>Acute myocardial infarction of anterolateral wall, subsequent episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.10</td>
<td>Acute myocardial infarction of other anterior wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.11</td>
<td>Acute myocardial infarction of other anterior wall, initial episode of care — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.20</td>
<td>Acute myocardial infarction of inferolateral wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.30</td>
<td>Acute myocardial infarction of inferoposterior wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.40</td>
<td>Acute myocardial infarction of inferior wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.50</td>
<td>Acute myocardial infarction of other lateral wall, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>410.60</td>
<td>Acute myocardial infarction, true posterior wall infarction, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>410.70</td>
<td>Acute myocardial infarction, subendocardial infarction, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<tr>
<td>410.80</td>
<td>Acute myocardial infarction of other specified sites, episode of care unspecified — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>411.0</td>
<td>Postmyocardial infarction syndrome — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>411.1</td>
<td>Intermediate coronary syndrome — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
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<td>411.81</td>
<td>Acute coronary occlusion without myocardial infarction — (Use additional code to identify presence of hypertension: 401.0-405.9)</td>
</tr>
<tr>
<td>415.11</td>
<td>Iatrogenic pulmonary embolism and infarction — (Use additional code for associated septic pulmonary embolism, if applicable: 415.12)</td>
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<tr>
<td>415.12</td>
<td>Septic pulmonary embolism</td>
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<tr>
<td>415.19</td>
<td>Other pulmonary embolism and infarction</td>
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<tr>
<td>428.0</td>
<td>Congestive heart failure, unspecified — (Code, if applicable, heart failure due to hypertension first: 402.0-402.9, with fifth-digit 1 or 404.0-404.9 with fifth digit 1 or 3)</td>
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<tr>
<td>433.80</td>
<td>Occlusion and stenosis of other specified precerebral artery without mention of cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)</td>
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<td>433.81</td>
<td>Occlusion and stenosis of other specified precerebral artery with cerebral infarction — (Use additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility: V45.88)</td>
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<td>444.9</td>
<td>Embolism and thrombosis of unspecified artery</td>
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<td>445.89</td>
<td>Atheroembolism of other site</td>
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<td>453.9</td>
<td>Embolism and thrombosis of unspecified site</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
86592-86593

86592  Syphilis test, non-treponemal antibody; qualitative (eg, VDRL, RPR, ART)

86593  quantitative

Explanation

These tests may commonly be ordered as RPR (rapid plasma reagin), STS (serologic test for syphilis), VDRL (venereal disease research laboratory), or ART (automated reagin test). Code 86592 may also be ordered as standard test for syphilis and is commonly used to provide a diagnosis (screening test) for the disease. Code 86593 is most commonly used to provide a monitor for treatment, or to establish a diagnosis of reinfection with syphilis. The method is by nontreponemal rapid plasma reagin (RPR)-particle agglutination test. Code 86593 may also be performed by anticardiolipin antibodies. More recently, both studies are being performed by automated methodology, such as enzyme-linked immunosorbent assay (ELISA).

Coding Tips

Syphilis is classified by type, early or late, and whether symptomatic, latent, or unspecified. Syphilis affecting the cardiovascular or nervous system is classified separately. For example, early syphilis, symptomatic with genital chancre is coded as 091.0 and latent early syphilis, unspecified, is coded as 092.9. Syphilis of the aortic valve is coded as 093.22.

Terms To Know

qualitative. To determine the nature of the component of substance.
quantitative. To determine the amount and nature of the components of a substance.

ICD-9-CM Diagnostic Codes

090.0  Early congenital syphilis, symptomatic
090.1  Early congenital syphilis, latent
090.2  Unspecified early congenital syphilis
090.3  Syphilitic interstitial keratitis
090.40  Unspecified juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.41  Congenital syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
090.42  Congenital syphilitic meningitis — (Use additional code to identify any associated mental disorder)
090.49  Other juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.5  Other late congenital syphilis, symptomatic
090.6  Late congenital syphilis, latent
090.7  Late congenital syphilis, unspecified
090.9  Congenital syphilis, unspecified
091.0  Genital syphilis (primary)
091.1  Primary anal syphilis
091.2  Other primary syphilis
091.3  Secondary syphilis of skin or mucous membranes
091.4  Adenopathy due to secondary syphilis
091.50  Early syphilis, syphilitic uveitis, unspecified
091.51  Early syphilis, syphilitic chorioretinitis (secondary)
091.52  Early syphilis, syphilitic iridocyclitis (secondary)
091.61  Early syphilis, secondary syphilitic periostitis
091.62  Early syphilis, secondary syphilitic hepatitis
091.69  Early syphilis, secondary syphilis of other viscera
091.7  Early syphilis, secondary syphilitic pericarditis
091.81  Early syphilis, acute syphilitic meningitis (secondary)
091.82  Early syphilis, syphilitic alopecia
091.89  Early syphilis, other forms of secondary syphilis
091.9  Early syphilis, unspecified secondary syphilis
092.0  Early syphilis, latent, serological relapse after treatment
092.9  Early syphilis, latent, unspecified
093.0  Aneurysm of aorta, specified as syphilitic
093.1  Syphilitic aortitis
093.20  Unspecified syphilitic endocarditis of valve
093.21  Syphilitic endocarditis, mitral valve
093.22  Syphilitic endocarditis, aortic valve
093.23  Syphilitic endocarditis, tricuspid valve
093.24  Syphilitic endocarditis, pulmonary valve
093.81  Syphilitic pericarditis
093.82  Syphilitic myocarditis
093.89  Other specified cardiovascular syphilis
093.9  Unspecified cardiovascular syphilis
V01.6  Contact with or exposure to venereal diseases
V02.8  Carrier or suspected carrier of other venereal diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

CCI Version 20.0

No CCI Edits apply to this code.
86602-86606

86602  Antibody; actinomyces
86603  adenovirus
86606  Aspergillus

Explanation
Code 86602 is commonly ordered as anti-actinomyces or actinomyces antibody titer. The test is used as a rapid serological method to diagnose for nocardial infections (infections caused by Nocardia, a genus of gram-positive bacteria). The methods are: complement fixation (CF), immunodiffusion, agglutination assay, and Western blot (immunoblot).
Code 86603 is commonly ordered as anti-adenovirus titer or adenovirus antibody titer. The test is traditionally used as a rapid serological method to diagnose for adenovirus infections. The methods are: complement fixation (CF), immunofluorescent, and enzyme-linked immunosorbent assay (ELISA). Code 86606 is commonly ordered as anti-aspergillus titer or aspergillus antibody titer. The test is used as a rapid serological method to diagnose for aspergillus infection. The methods are: complement fixation (CF), counterimmunoelectrophoresis, radioimmunooassay, immunofluorescence, enzyme-linked immunosorbent assay (ELISA), and immunodiffusion. All three tests require serum as the test specimen.

Coding Tips
For bacterium not elsewhere classified, see 86609. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
026.1  Streptobacillary fever
039.0  Cutaneous actinomycotic infection
039.1  Pulmonary actinomycotic infection
039.2  Abdominal actinomycotic infection
039.3  Cervicofacial actinomycotic infection
039.4  Madura foot
039.8  Actinomycotic infection of other specified sites
039.9  Actinomycotic infection of unspecified site
079.0  Adenovirus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)

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CCI Version 20.0
No CCI Edits apply to this code.

Aspergillosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Antibody; Blastomyces

**Explanation**
This test is commonly ordered as anti-Blastomyces or Blastomyces antibody titer. It may occasionally be ordered as "blasto" titer. The specimen is serum. The test is used as a rapid serological method to diagnose for Blastomyces infections. The methods are: complement fixation (CF), immunodiffusion, agglutination assay, immunofluorescence, enzyme-linked immunosorbent assay (ELISA), and Western blot (immunoblot).

**Coding Tips**
To report infectious agent or antigen detection, consult CPT codes 87620–87899. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or OQHCP by a phlebotomist or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **Agglutination**: Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.
- **Antibody**: Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **Antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **Laboratory**: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**
- 116.0 Blastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
- 116.1 Paracoccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
- 116.2 Lobomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
Antibody; Bordetella

**Explanation**
This test may be ordered as pertussis or whooping cough antibody. Bordetella pertussis is the causative agent of whooping cough. This test demonstrates antibodies, which is not a common approach to developing a clinical diagnosis due to the time required for seroconversion. However, it may be used to evaluate immunity following immunization. Blood specimen is serum. Methods include enzyme-linked immunosorbent assay (ELISA), microhemagglutination, complement fixation (CF), and toxin neutralization.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **agglutination**: Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.
- **antibody**: Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **laboratory**: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**
- 033.8 Whooping cough due to other specified organism — (Use additional code to identify any associated pneumonia: 484.3)
- 033.9 Whooping cough, unspecified organism — (Use additional code to identify any associated pneumonia: 484.3)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
**Antibody; Borrelia burgdorferi (Lyme disease) confirmatory test** (eg, Western Blot or immunoblot)

**Explanation**

*Borrelia burgdorferi* is the causative agent of Lyme disease, (the vector being a tick). Antibodies usually build up in patients several weeks or longer into an infection. Code 86617 may be ordered as a Lyme disease confirmation test. This test is confirmatory, meaning previous diagnostic work has been performed. Blood specimen is serum. CSF specimen is obtained by spinal puncture that is reported separately. This test reports a second test for confirmation by immunoblot or Western blot. It may also be used to establish a diagnosis following indeterminate ELISA results. Code 86618 may be ordered simply as a Lyme disease antibody test. Blood specimen is serum. CSF specimen is obtained by spinal puncture, which is reported separately. Methods include enzyme-linked immunosorbent assay (ELISA), enzyme immunoassay (EIA), indirect fluorescent antibody (IFA), or specific IgG, IgM, and IgA by antibody capture.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. To report spinal puncture for obtaining cerebrospinal fluid for diagnostic purposes, see code 62270. Code 86618 may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

**Terms To Know**

**Lyme disease.** Acute inflammatory disease caused by a tick bite.

**ICD-9-CM Diagnostic Codes**

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<th>Description</th>
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<td>Lyme disease</td>
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<td>351.0</td>
<td>Bell's palsy</td>
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<td>Geniculate ganglionitis</td>
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<td>Other facial nerve disorders</td>
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<td>351.9</td>
<td>Unspecified facial nerve disorder</td>
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<td>Arthropathy associated with other infectious and parasitic diseases, site unspecified — (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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<td>Arthropathy associated with other infectious and parasitic diseases, shoulder region — (Code first underlying disease: 080-088, 100-104, 130-136)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4,16,70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
Antibody; Campylobacter

Explanation
Campylobacter is a genus of bacteria, some of which are responsible for a wide variety of illnesses in humans. Enteritis is among the more common illnesses. Campylobacter is also implicated in Guillain-Barre syndrome, a form of peripheral neuropathy. Blood specimen is obtained by venipuncture. The literature is unclear about methods and reasons to order such testing. Most clinical cases of Campylobacter infection resolve themselves spontaneously or following drug therapy.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
campylobacteriosis. Infection with the gram-negative, motile bacteria campylobacter, found normally occurring in the mouth and genitourinary and gastrointestinal (GI) tracts of humans. It is the most prevalent cause of diarrhea with GI symptoms usually beginning two to five days from exposure and lasting as long as a week. Infection comes from undercooked or poorly preserved chicken, unpasteurized milk, and contaminated drinking water, such as from streams and rivers contaminated with feces from cows and birds. It is generally not treated but antibiotics are given in severe cases. Campylobacteriosis is reported with ICD-9-CM code 008.46.
Guillain-Barré (-Strohl) syndrome. Autoimmune disorder due to an immune response to foreign antigens from another disease process or unknown etiology with paraplegia of limbs, flaccid paralysis, ophthalmoplegia, ataxia, and areflexia. The most common acute form is AIDP, and chronic is CIDP. Report the acute form with ICD-9-CM code 357.0 (ICD-10-CM code G61.0) and chronic with 357.81 (ICD-10-CM code G61.81). Synonym(s): Barré-Guillain syndrome, Fisher’s syndrome, Landry syndrome, Miller-Fisher’s syndrome, Strohl syndrome.

ICD-9-CM Diagnostic Codes
009.0 Infectious colitis, enteritis, and gastroenteritis
009.1 Colitis, enteritis, and gastroenteritis of presumed infectious origin
009.2 Infectious diarrhea
009.3 Diarrhea of presumed infectious origin
729.82 Cramp of limb
780.60 Fever, unspecified
787.01 Nausea with vomiting
787.91 Diarrhea
789.00 Abdominal pain, unspecified site
789.01 Abdominal pain, right upper quadrant
789.02 Abdominal pain, left upper quadrant
789.03 Abdominal pain, right lower quadrant
789.04 Abdominal pain, left lower quadrant
789.05 Abdominal pain, periumbilical
789.06 Abdominal pain, epigastric
789.07 Abdominal pain, generalized
789.09 Abdominal pain, other specified site

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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**Explanation**

*Candida* is a ubiquitous genus of fungi, some species of which are pathogenic to humans. The range of illnesses is quite large. This test is performed primarily to evaluate suspected systemic invasions by *Candida*. If confirmed, tests may be obtained at biweekly intervals to assess effectiveness of drug therapy. Blood specimen is serum. Methods include latex agglutination (LA), immunodiffusion (ID), crossed (2-dimensional) immunoelectrophoresis, and enzyme-linked immunosorbent assay (ELISA).

**Coding Tips**

For fungal culture, consult CPT codes 87101-87103 and 87106-87107.

To report a skin test for Candida, consult CPT code 86485.

**Terms To Know**

candidiasis. Yeast infection caused by the fungus *Candida albicans*. It commonly occurs in the vagina, but affects any moist skin or mucus membrane.

Report candidiasis with a code from ICD-9-CM category 112.

**ICD-9-CM Diagnostic Codes**

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<td>Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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**86631-86632**

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**Explanation**

Code 86631 may be ordered as chlamydia psittaci or LVG titer. Code 86632 may be ordered as chlamydia IgM titer. The specimen is serum or finger stick in adults, or heel stick in infants. Methods are complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), and immunofluorescent antibody (IFA). This test may be used to determine exposure to chlamydia, though the test should not be used as a specific type. *Chlamydomonas* is a genus of algae that can cause nongonococcal urethritis, among other infections.

**Coding Tips**

To report infectious agent or antigen detection, consult CPT codes 87620-87899. To report Chlamydia antigen, see codes 87270 and 87320. To report fluorescent antibody technique, see codes 86255 and 86256.

**Terms To Know**

- **antibody**: Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **chlamydia trachomatis**: Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter’s syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.
- **laboratory**: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

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86635
Antibody; Coccidioides

Explanation
This test may be ordered as Coccidioides titer, Coccidioides antibody titer, Cocci titer or Cocci precipitins. The specimen is serum or finger stick in adults, or heel stick in infants. Methods include complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), immunofluorescent antibody (IFA), immunodiffusion, and precipitin test. The test may be performed to determine current infection or assess prognosis of Coccidioides immitis, a fungus that causes coccidioidomycosis.

Coding Tips
To report infectious agent or antigen detection, consult CPT codes 87620-87899. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

coccidioidomycosis. Condition where fungus invades the body producing fever and pulmonary difficulties.
coccidiosis. Infection by the protozoan Isospora hominis or I. belli, usually asymptomatic and found by testing stool sample, reported with ICD-9-CM code 007.2. Synonym(s): isosporiasis.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
<th>Description</th>
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<td>Primary coccidioidomycosis (pulmonary) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>114.1</td>
<td>Primary extrapulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>114.2</td>
<td>Coccidioidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>Other forms of progressive coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>Chronic pulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>Unspecified pulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>114.9</td>
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**Explanation**

CMV is any of several viruses that can cause severe disease especially in newborns by infecting the salivary glands, brain, kidneys, liver, and lungs. Code 86644 may be ordered as CMV-IFA, CMV titers, Cytomegalic inclusion titers, or CMV IgG. The specimen is serum. Methods are complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), immunofluorescent antibody (IFA), and latex agglutination. This test may be performed to determine current cytomegalovirus (CMV) infection. Code 86645 is commonly ordered as CMV IgM antibody titer, CMV IgM titer, cytomegalovirus IGM antibody titer, or CMV IgM. The specimen is serum or finger stick in adults, or heel stick in infants. Methods are complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), immunofluorescent antibody (IFA), and latex agglutination. This may be performed to determine previous exposure to cytomegalovirus (CMV) or an acute CMV infection.

**Coding Tips**

To report infectious agent or antigen detection, consult CPT codes 87620-87899. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

CMV. Cytomegalovirus.

Cytomegalovirus. Herpes virus that infects directly through mucous membrane contact, tissue transplant, or blood transfusion, producing enlarged, infected cells containing inclusion bodies.

Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

078.5 Cytomegaloviral disease — (Use additional code to identify manifestation: 484.1, 573.1)
Antibody; encephalitis, California (La Crosse)

86651

encephalitis, Eastern equine
86652

encephalitis, St. Louis
86653

encephalitis, Western equine
86654

Explanation
There are several strains of the encephalitis virus that can cause inflammatory conditions, especially in the tissues of the brain. Code 86651 may be ordered as La Crosse virus titer, California encephalitis titer, or bunyavirus titer. The specimen is serum. Methods are complement fixation (CF), or enzyme-linked immunosorbent assay (ELISA). This test may be performed to confirm the presence of the California encephalitis viral infection. Code 86652 may be ordered as Eastern equine encephalitis titer. The specimen is serum. Methods are complement fixation (CF), or enzyme-linked immunosorbent assay (ELISA). This test may be performed to confirm the presence of Eastern equine encephalitis. Code 86653 may be ordered as St. Louis virus titer or St. Louis encephalitis titer. The specimen is serum. Methods are complement fixation (CF), or enzyme-linked immunosorbent assay (ELISA). This test may be performed to confirm the presence of St. Louis encephalitis. Code 86654 may be ordered as Western equine encephalitis titer. The specimen is serum. Methods are complement fixation (CF), or enzyme-linked immunosorbent assay (ELISA). This test may be performed to determine the presence of the Western equine encephalitis virus.

Coding Tips
Appropriate code selection is dependent upon the strain of encephalitis virus being tested.

Terms To Know
encephalitis. Inflammation of the brain, often caused by viral or bacterial infection. Code assignment requires more than one code and is dependent upon the specific infectious agent (herpes simplex, rubella, meningococcus), the type of underlying disease (viral, rickettsial, protozoal, other infectious disease), or whether it occurs postinfection, postimmunization, or from toxic poisoning.

ICD-9-CM Diagnostic Codes
062.1 Western equine encephalitis — (Use additional code to identify any associated meningitis: 321.2)
062.2 Eastern equine encephalitis — (Use additional code to identify any associated meningitis: 321.2)
062.3 St. Louis encephalitis — (Use additional code to identify any associated meningitis: 321.2)
062.5 California virus encephalitis — (Use additional code to identify any associated meningitis: 321.2)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Antibody, enterovirus (eg, coxsackie, echo, polio)

Explanation
This test may be ordered as enterovirus antibody panel (IgG or IgM), coxsackie A titer, or poliovirus titer. The panel includes coxsackie A and B, echovirus, and poliovirus. The specimen is serum. Methods are complement fixation (CF), viral neutralization, or enzyme-linked immunosorbent assay (ELISA). This test may be performed to determine presence of the coxsackie A virus, poliovirus, or other enteroviruses that typically occur in the gastrointestinal tract, but may also cause respiratory ailments, meningitis, and neurological disorders.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
enterovirus. Genus of viruses inhabiting the intestinal tract and belonging to the family Picomaviridae. There are many different strains of non-polio enterovirus.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
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<td>045.02</td>
<td>Acute paralytic poliomyelitis specified as bulbar, poliovirus type II</td>
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<td>Acute paralytic poliomyelitis specified as bulbar, poliovirus type III</td>
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<td>Acute poliomyelitis with other paralysis, unspecified poliovirus</td>
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<tr>
<td>045.11</td>
<td>Acute poliomyelitis with other paralysis, poliovirus type I</td>
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<td>045.12</td>
<td>Acute poliomyelitis with other paralysis, poliovirus type II</td>
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<td>Acute poliomyelitis with other paralysis, poliovirus type III</td>
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<td>045.20</td>
<td>Acute nonparalytic poliomyelitis, unspecified poliovirus</td>
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<td>045.21</td>
<td>Acute nonparalytic poliomyelitis, poliovirus type I</td>
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<tr>
<td>045.22</td>
<td>Acute nonparalytic poliomyelitis, poliovirus type II</td>
</tr>
<tr>
<td>045.23</td>
<td>Acute nonparalytic poliomyelitis, poliovirus type III</td>
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<tr>
<td>045.90</td>
<td>Acute unspecified poliomyelitis, unspecified poliovirus</td>
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<tr>
<td>045.91</td>
<td>Acute unspecified poliomyelitis, poliovirus type I</td>
</tr>
<tr>
<td>045.92</td>
<td>Acute unspecified poliomyelitis, poliovirus type II</td>
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</table>

045.93   | Acute unspecified poliomyelitis, poliovirus type III |
047.0    | Meningitis due to coxsackie virus |
047.1    | Meningitis due to ECHO virus |
047.8    | Other specified viral meningitis |
047.9    | Unspecified viral meningitis |
049.0    | Lymphocytic choriomeningitis |
074.0    | Herpangina |
074.1    | Epidemic pleurodynia |
074.20   | Coxsackie carditis, unspecified |
074.21   | Coxsackie pericarditis |
079.1    | ECHO virus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site) |
079.2    | Coxsackievirus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site) |

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Antibody; Epstein-Barr (EB) virus, early antigen (EA)

Epstein-Barr (EB) virus, nuclear antigen (EBNA)

Epstein-Barr (EB) virus, viral capsid (VCA)

**Explanation**

These tests may be ordered as EBV-EA titer, EBNA (IgG or IgM) titer, or EBV-VCA (IgG or IgM), or EB-VCA (IgG or IgM) titer. The specimen is serum. The test has been used as a serological method to detect previous exposure to EBV or acute EBV disease. Methods are complement fixation (CF) or enzyme-linked immunosorbent assay (ELISA), indirect fluorescent antibody, or immunofluorescent antibody (IFA). Code 86663 identifies an early antigen (short-lived); 86664 is reported for nuclear antigen; 86665 is used for viral capsid antigen (VCA). The VCA test may be the most effectual of the three tests for determining EB viral infection, which is the main cause of infectious mononucleosis.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*antibody.* Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

*antigen.* Substance inducing sensitivity or triggering an immune response and the production of antibodies.

*laboratory.* Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>075</td>
<td>Infectious mononucleosis</td>
</tr>
<tr>
<td>462</td>
<td>Acute pharyngitis — (Use additional code to identify infectious organism)</td>
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<tr>
<td>780.60</td>
<td>Fever, unspecified</td>
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<tr>
<td>780.79</td>
<td>Other malaise and fatigue</td>
</tr>
<tr>
<td>785.6</td>
<td>Enlargement of lymph nodes</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Antibody; Ehrlichia

Explanation
This test may also be ordered as *Ehrlichia* IgM or IgG. The specimen is serum. Methods include indirect fluorescent antibody (IFA) and immunofluorescent antibody (IFA). The *Ehrlichia* genus of rickettsia bacteria is implicated in a form of tick fever similar to Rocky Mountain Spotted Fever, sometimes referred to as "spotless" fever. Testing may occur during acute or convalescent phases of illness.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- **antibody.** Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **antigen.** Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **ehrlichiosis.** Acute, bacterial febrile illness caused by infection from a tick bite. Symptoms range from mild to severe and include nausea, vomiting, diarrhea, headache, confusion, chills, myalgia, and malaise, with leukopenia and thrombocytopenia. Antibiotic treatment is sometimes required and death has been known to occur. Report this disease with a code from ICD-9-CM category 082.4.
- **laboratory.** Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
082.40  Ehrlichiosis, unspecified
082.49  Other ehrlichiosis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
**86668**

86668  Antibody; Francisella tularensis

**Explanation**
This test is also known as Tularemia antibody titer, rabbit fever antibodies, and Francisella tularensis antibodies. The specimen is serum. Methods include complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), or immunofluorescent antibody (IFA) agglutination, and hemagglutination. The test may be performed to determine the presence of the bacteria *F. tularensis*, a bacterium transmitted by insect bite that causes tularemia marked by toxemia.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **antibody**: Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **rabbit fever**: Infection caused by the *Francisella tularensis* organism. It usually enters the body through the fingers and hands. The signs and symptoms of rabbit fever vary depending on how the bacteria enters the body but can include skin ulcers, swelling of lymph glands, inflammation of the eye, sore throat, mouth ulcers, tonsillitis, and pneumonia. All forms are accompanied by fever, which can be as high as 104°F. Report this condition with ICD-9-CM code 021.0. *Synonym(s):* tularemia.
- **venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

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<td>Unspecified tularemia</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Antibody; Giardia lamblia

**Explanation**
This test may be requested as Giardia antibody or Giardia titer. Giardia lamblia is the causative protozoal organism of the intestinal disorder known as Giardia. Blood specimen is serum. Methods such as commercial kit, enzyme immunoassay (EIA), and indirect immunofluorescence may be employed.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **antibody**. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **laboratory**. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
- **protozoa**. Subkingdom in animal taxonomy comprised of the simplest, single celled organisms, ranging in size from micro to macroscopic. They can live alone or in colonies, and do not show any differentiation in tissues. Most are motile and can live free in nature, but some are parasitic, causing disease in the variety of hosts they inhabit.
- **specimen**. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- **venipuncture**. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**
007.1 Giardiasis
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Antibody; Helicobacter pylori

Explanation
This test may be ordered as H. pylori antibody titer or Campylobacter pylori serology. The specimen is serum. Method is enzyme-linked immunosorbent assay (ELISA) or chemiluminescence. The test may be performed to determine the presence of Helicobacter pylori, a common cause of intestinal disease and suspected as a cause of ulcerated stomach tissue.

Coding Tips
To report antigen detection, consult CPT codes 87338-87339; for breath test, consult CPT codes 78267-78268 and 83013-83014.

Terms To Know
Helicobacter pylori. Bacteria found to be a causal agent in gastritis and pyloric ulcers, known to be associated with gastric cancer. It is easily treatable with antibiotics. Tests for H. pylori include a simple breath test analysis, blood or stool sample analysis, or a combination of both, reported with CPT codes 83009, 83013-83014, and 87338-87333. ICD-9-CM code 041.86 or ICD-10-CM code B96.81 for H. pylori infection should be reported in addition to the code for the ulcer.

ulcer. Open sore or excavating lesion of skin or the tissue on the surface of an organ from the sloughing of chronically inflamed and necrosing tissue.

ICD-9-CM Diagnostic Codes
041.86 Helicobacter pylori [H. pylori] infection — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
151.0 Malignant neoplasm of cardia
151.1 Malignant neoplasm of pylorus
151.2 Malignant neoplasm of pyloric antrum
151.3 Malignant neoplasm of fundus of stomach
151.4 Malignant neoplasm of body of stomach
151.5 Malignant neoplasm of lesser curvature of stomach, unspecified
531.00 Acute gastric ulcer with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
531.01 Acute gastric ulcer with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
531.10 Acute gastric ulcer with perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
531.11 Acute gastric ulcer with perforation and obstruction — (Use additional E code to identify drug, if drug induced)
531.40 Chronic or unspecified gastric ulcer with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
531.41 Chronic or unspecified gastric ulcer with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
531.70 Chronic gastric ulcer without mention of hemorrhage, perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
531.90 Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage, perforation, or obstruction — (Use additional E code to identify drug, if drug induced)
531.91 Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction — (Use additional E code to identify drug, if drug induced)
532.00 Acute duodenal ulcer with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
532.01 Acute duodenal ulcer with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)
533.40 Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction — (Use additional E code to identify drug, if drug induced)
534.00 Acute gastrojejunal ulcer with hemorrhage, without mention of obstruction
534.01 Acute gastrojejunal ulcer, with hemorrhage and obstruction
534.61 Chronic or unspecified gastrojejunal ulcer with hemorrhage, perforation, and obstruction
534.70 Chronic gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction
534.91 Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
86684

Antibody; Haemophilus influenza

Explanation
This test may be ordered as a H. Influenza (type A or B) antibody titer. The specimen is serum. Method is complement fixation, EIA, or enzyme-linked immunosorbent assay (ELISA). This test is performed to determine the presence of H. Influenza, a common cause of chronic intestinal disease.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
038.41 Septicemia due to hemophilus influenzae (H. influenzae) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
041.5 Hemophilus influenzae (H. influenzae) infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
289.3 Lymphadenitis, unspecified, except mesenteric
320.0 Hemophilus meningitis
360.00 Unspecified purulent endophthalmitis
360.01 Acute endophthalmitis
360.02 Panophthalmitis
360.03 Chronic endophthalmitis
360.11 Sympathetic uveitis
360.12 Panuveitis
360.13 Parotic endophthalmitis NOS
360.14 Ophthalmia nodosa
360.19 Other endophthalmitis
421.0 Acute and subacute bacterial endocarditis — (Use additional code to identify infectious organism)
421.1 Acute and subacute infective endocarditis in diseases classified elsewhere — (Code first underlying disease: 002.0, 083.0, 116.0)
421.9 Unspecified acute endocarditis
424.90 Endocarditis, valve unspecified, unspecified cause
424.91 Endocarditis in diseases classified elsewhere — (Code first underlying disease: 017.9, 710.0)
424.99 Other endocarditis, valve unspecified
464.30 Acute epiglottitis without mention of obstruction — (Use additional code to identify infectious organism
482.2 Pneumonia due to Hemophilus influenzae (H. influenzae)
599.0 Urinary tract infection, site not specified — (Use additional code to identify organism, such as E. coli: 041.41-041.49)
682.9 Cellulitis and abscess of unspecified site — (Use additional code to identify organism, such as 041.1, etc.)
711.00 Pyogenic arthritis, site unspecified — (Use additional code to identify infectious organism: 041.0-041.8)
730.00 Acute osteomyelitis, site unspecified — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)
730.10 Chronic osteomyelitis, site unspecified — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)
730.20 Unspecified osteomyelitis, site unspecified — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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86687
86687 Antibody; HTLV-I

Explanation
This test is commonly ordered as HTLV-I antibody titer or Human T Cell Leukemia I Virus titer. The specimen is by venipuncture or finger stick in adults, or heel stick in infants. Methods are Western blot, radioimmunoprecipitation, and screen enzyme immunoassay. This test may be performed to determine the presence of HTLV-I virus and to screen blood and blood products used for transfusions.

Coding Tips
To report infectious agent or antigen detection, consult CPT codes 87620-87899. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
transfusion. 1) Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient. Transfusions help restore lost blood and improve the ability of the blood to deliver oxygen to the body’s tissues. NCD References: 110.16, 110.5, 110.7, 110.8. 2) Process of taking liquid from one vessel and putting it into another.

ICD-9-CM Diagnostic Codes
042 Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
079.51 Human t-cell lymphotropic virus, type I (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.01 Acute lymphoid leukemia in remission
204.02 Acute lymphoid leukemia, in relapse
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
204.11 Chronic lymphoid leukemia in remission
204.12 Chronic lymphoid leukemia, in relapse
204.20 Subacute lymphoid leukemia, without mention of having achieved remission
204.21 Subacute lymphoid leukemia in remission
204.22 Subacute lymphoid leukemia, in relapse
204.80 Other lymphoid leukemia, without mention of having achieved remission
204.81 Other lymphoid leukemia in remission
204.82 Other lymphoid leukemia, in relapse
204.90 Unspecified lymphoid leukemia, without mention of having achieved remission
204.91 Unspecified lymphoid leukemia in remission
204.92 Unspecified lymphoid leukemia, in relapse
205.00 Acute myeloid leukemia, without mention of having achieved remission
205.01 Acute myeloid leukemia in remission
205.02 Acute myeloid leukemia, in relapse
205.10 Chronic myeloid leukemia, without mention of having achieved remission
205.11 Chronic myeloid leukemia in remission
205.12 Chronic myeloid leukemia, in relapse
205.20 Subacute myeloid leukemia, without mention of having achieved remission
205.21 Subacute myeloid leukemia in remission
205.22 Subacute myeloid leukemia, in relapse
205.30 Myeloid sarcoma, without mention of having achieved remission
205.80 Other myeloid leukemia, without mention of having achieved remission
205.81 Other myeloid leukemia in remission
205.82 Other myeloid leukemia, in relapse
205.90 Unspecified myeloid leukemia, without mention of having achieved remission
205.91 Unspecified myeloid leukemia in remission
205.92 Unspecified myeloid leukemia, in relapse
206.80 Other myeloid leukemia, without mention of having achieved remission
206.81 Other myeloid leukemia in remission
206.82 Other myeloid leukemia, in relapse
206.90 Unspecified myeloid leukemia, without mention of having achieved remission
206.91 Unspecified myeloid leukemia in remission
206.92 Unspecified myeloid leukemia, in relapse
042 Asymptomatic human immunodeficiency virus (HIV) infection status — (This code is only to be used when no HIV infection symptoms or conditions are present. If any HIV infection symptoms or conditions are present, see code 042)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Antibody; HTLV-II

**Explanation**
This test is commonly ordered as HTLV-II antibody titer or human T cell leukemia II virus titer. The specimen is serum. Methods are Western blot, radioimmunoprecipitation, and screen enzyme immunoassay. This test may be performed to determine the presence of HTLV-II virus and to screen blood and blood products used for transfusions.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
transfusion. Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**

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<th>Description</th>
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<td>079.52</td>
<td>Human T-cell lymphotrophic virus, type II (HTLV-II), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
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<td>204.00</td>
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<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
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86689 - NCD

86689 Antibody; HTLV or HIV antibody, confirmatory test (eg, Western Blot)

Explanation
This test is commonly ordered as HTLV or HIV by Western blot. The specimen is serum. This test may be performed as a confirmation of a positive test for human T cell leukemia II virus or human immunodeficiency virus (HIV), often by a previous enzyme-linked immunoassay (ELISA).

Coding Tips
A national coverage determination (NCD) applies to this code. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.14. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
HIV, Human immunodeficiency virus. NCD References: 190.9, 190.13, 190.14.

ICD-9-CM Diagnostic Codes

010.00 Primary tuberculous complex, confirmation unspecified
010.01 Primary tuberculous complex, bacteriological or histological examination not done
010.10 Tuberculous pleurisy in primary progressive tuberculosis, confirmation unspecified
010.11 Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination not done
010.81 Other primary progressive tuberculosis infection, bacteriological or histological examination not done
010.82 Other primary progressive tuberculosis infection, bacteriological or histological examination not done
010.90 Primary tuberculous infection, unspecified, confirmation unspecified
010.94 Primary tuberculous infection, unspecified, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
011.02 Tuberculosis of lung, infiltrative, bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)
011.03 Tuberculosis of lung, infiltrative, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify any associated silicosis, 502)
011.32 Tuberculosis of bronchus, bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)
011.33 Tuberculosis of bronchus, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify any associated silicosis, 502)
017.32 Tuberculosis of eye, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 363.13, 364.11, 370.31, 370.59, 379.09)
017.33 Tuberculosis of eye, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 363.13, 364.11, 370.31, 370.59, 379.09)
031.0 Pulmonary diseases due to other mycobacteria
031.1 Cutaneous diseases due to other mycobacteria
031.2 Disseminated diseases due to other mycobacteria
031.8 Other specified diseases due to other mycobacteria
031.9 Unspecified diseases due to mycobacteria
042 Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
079.51 Human t-cell lymphotrophic virus, type I (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
079.52 Human t-cell lymphotrophic virus, type II (HTLV-II), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.9; 100-3,190.14

CCI Version 20.0
No CCI Edits apply to this code.

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**Antibody; hepatitis, delta agent**

**Explanation**
This test may be ordered as hepatitis D antibody, hepatitis delta antibody, or superinfection antibody. Hepatitis D occurs concurrently with hepatitis B and may lead to more severe clinical symptoms than hepatitis B alone, a condition known as superinfection. Specimen is serum. Methodology may involve enzyme immunoassay (EIA).

**Coding Tips**
To report hepatitis delta agent, antigen, consult CPT code 87380. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. A fifth-digit assignment for viral hepatitis B is required and identifies the presence of hepatitis D as well as whether the condition is acute or chronic.

**Terms To Know**
**Hepatitis D (delta).** Hepatitis D virus (HDV) occurs only in the presence of hepatitis B virus.

**ICD-9-CM Diagnostic Codes**

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<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
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<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
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<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta</td>
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<td>070.33</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
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<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
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<td>Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)</td>
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<td>Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)</td>
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<td>647.60</td>
<td>Other maternal viral disease complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

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**86694-86696**

86694  Antibody; herpes simplex, non-specific type test  
86695  herpes simplex, type 1  
86696  herpes simplex, type 2

**Explanation**

These tests may be ordered as HSV antibody titer, HSV titer, herpes simplex antibody titer, or HSV IgG/IGM. The specimen is serum or finger stick in adults, or heel stick in infants. A number of methodologies have been employed, such as complement fixation (CF), enzyme-linked immunosorbent assay (ELISA), indirect fluorescent antibody (IFA), enzyme immunoassay, and latex agglutination. This test has been used as a serologic method to detect previous or recent exposure to herpes simplex. To report non-specific type testing, see 86694; testing for type 1, see 86695; testing for type 2, see 86696.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**herpes.** Inflammatory diseases of the skin caused by the herpes virus.  
**venipuncture.** Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

054.0  Eczema herpeticum  
054.10  Unspecified genital herpes  
054.11  Herpetic vulvovaginitis  
054.12  Herpetic ulceration of vulva  
054.13  Herpetic infection of penis  
054.19  Other genital herpes  
054.2  Herpetic gingivostomatitis  
054.3  Herpetic meningencephalitis  
054.40  Unspecified ophthalmic complication herpes simplex  
054.41  Herpes simplex dermatitis of eyelid  
054.42  Dendritic keratitis  
054.43  Herpes simplex disciform keratitis  
054.44  Herpes simplex iridocyclitis  
054.49  Herpes simplex with other ophthalmic complications  
054.5  Herpetic septicemia

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**CCI Version 20.0**

No CCI Edits apply to this code.
86698

Antibody; histoplasma

Explanation
This test may be requested as histoplasma antibody. Histoplasma capsulatum is a fungus that may be infectious in humans. Incidence seems tied to certain regions. Many infections are asymptomatic or feature mild symptoms. Blood specimen is serum. Complement fixation (CF) is quantifiable and is considered one of the best methods. Immunodiffusion (ID), agar diffusion, latex agglutination (LA), radioimmunoassay (RIA), or enzyme immunoassay (EIA) may also be used.

Coding Tips
To report histoplasmosis skin test, consult CPT code 86510.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
histoplasmosis. Infection resulting from inhalation of fungal spores, causing acute pneumonia, an influenza-like illness, or a disseminated disease of the reticuloendothelial system. In immunocompromised patients it can reactivate, affecting the lungs, meninges, heart, peritoneum, and adrenals.

ICD-9-CM Diagnostic Codes
115.00 Histoplasma capsulatum, without mention of manifestation
115.01 Histoplasma capsulatum meningitis
115.02 Histoplasma capsulatum retinitis
115.03 Histoplasma capsulatum pericarditis
115.04 Histoplasma capsulatum endocarditis
115.05 Histoplasma capsulatum pneumonia
115.09 Histoplasma capsulatum, with mention of other manifestation
115.10 Histoplasma duboisii, without mention of manifestation
115.11 Histoplasma duboisii meningitis
115.12 Histoplasma duboisii retinitis
115.13 Histoplasma duboisii pericarditis
115.14 Histoplasma duboisii endocarditis
115.15 Histoplasma duboisii pneumonia
115.19 Histoplasma duboisii with mention of other manifestation
115.90 Unspecified Histoplasmosis without mention of manifestation
115.91 Unspecified Histoplasmosis meningitis
115.92 Unspecified Histoplasmosis retinitis
115.93 Unspecified Histoplasmosis pericarditis
115.94 Unspecified Histoplasmosis endocarditis
115.95 Unspecified Histoplasmosis pneumonia
115.99 Unspecified Histoplasmosis with mention of other manifestation

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**86701-86703 - NCD**

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<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Explanation**

This test (86701) may be ordered as an HIV-1 serological test, an HIV-1 antibody, or by an internal code. HIV is a retrovirus and the causative agent of acquired immunodeficiency syndrome (AIDS). Specimen is serum. Numerous kits are now available that use a variety of viral proteins and serum synthetic peptides as antigens. Methodology is enzyme immunoassay (EIA), enzyme-linked immunosorbent assay (ELISA), radioimmunoprecipitation assay (RIPA), or indirect fluorescent antibody (IFA). A negative test does not guarantee negative status and the test is often repeated several times. Code 86702 may be ordered as an HIV-2 serological antibody. This is an antibody test for HIV-2, a retrovirus closely related to simian AIDS and found initially in West African nations and Portugal, but with cases also being reported in the United States since 1987. Code 86703 may be ordered as a combined HIV-1 and -2 serological or a combined HIV-1 and -2 antibody. This is an antibody test that tests for both HIV-1 and HIV-2 with a single result.

**Coding Tips**

When HIV-1 antigen is reported with HIV-1 and HIV-2 antibodies as a single result, code 87389 should be reported. A national coverage determination (NCD) exists for these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.14. Codes 86701 and 86703 represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Code 86703 should be reported when both HIV-1 and HIV-2 are performed. When codes from range 86701–86703 are performed using a kit or transportable instrument and the single-use requirements are met, modifier 92 should be appended. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400–36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**CLI**. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

**HIV.** Human immunodeficiency virus. **NCD References: 190.9, 190.13, 190.14.**

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>003.1</td>
<td>Salmonella septicemia</td>
</tr>
<tr>
<td>007.2</td>
<td>Coccidiosis</td>
</tr>
<tr>
<td>007.4</td>
<td>Cryptosporidiosis</td>
</tr>
<tr>
<td>007.8</td>
<td>Other specified protozoal intestinal diseases</td>
</tr>
<tr>
<td>010.00</td>
<td>Primary tuberculous complex, confirmation unspecified</td>
</tr>
<tr>
<td>010.01</td>
<td>Primary tuberculous complex, bacteriological or histological examination not done</td>
</tr>
<tr>
<td>010.02</td>
<td>Primary tuberculous complex, bacteriological or histological examination unknown (at present)</td>
</tr>
<tr>
<td>010.03</td>
<td>Primary tuberculous complex, tubercle bacilli found (in sputum) by microscopy</td>
</tr>
<tr>
<td>010.04</td>
<td>Primary tuberculous complex, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture</td>
</tr>
<tr>
<td>010.06</td>
<td>Primary tuberculous complex, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]</td>
</tr>
<tr>
<td>010.10</td>
<td>Tuberculous pleurisy in primary progressive tuberculosis, confirmation unspecified</td>
</tr>
<tr>
<td>010.11</td>
<td>Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination not done</td>
</tr>
<tr>
<td>010.12</td>
<td>Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination results unknown (at present)</td>
</tr>
<tr>
<td>010.13</td>
<td>Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli found (in sputum) by microscopy</td>
</tr>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>V01.79</td>
<td>Contact or exposure to other viral diseases</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.9; 100-3,190.14; 100-4,16,70.8

**CCI Version 20.0**

No CCI Edits apply to this code.
**Explanation**

Code 86704 may be ordered as hepatitis Bc Ab (HBcAb), total. It may also be ordered as HBCab, anti-HBC, HBV Ab, anti-HBV. This test identifies Hepatitis B core total antibodies (IgG and IgM), which are markers available to identify individuals with acute, chronic, or past infection of hepatitis B. The presence of high-titered IgM specific HBcAb is always indicative of an acute infection. The presence of IgG may indicate acute or chronic infection. Methods include radioimmunoassay (RIA) and enzyme-linked immunosorbent assay (ELISA). Code 86705 may be ordered as hepatitis Bc Ab (HBcAb), IgM. It may also be ordered as HBcAb, anti-HBc, HBVc Ab, anti-HBVc. This test identifies Hepatitis B core IgM antibodies, the presence of which always indicates an acute infection. Methods include radioimmunoassay (RIA) and enzyme-linked immunosorbent assay (ELISA). Blood specimen is serum for both studies.

**Coding Tips**

To report hepatitis B antigen consult CPT codes 87515-87517. To report B surface antigen consult CPT codes 87340-87341; hepatitis Be antigen, see 87350.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>070.0</td>
<td>Viral hepatitis A with hepatic coma</td>
</tr>
<tr>
<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
</tr>
<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.31</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.32</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.33</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.41</td>
<td>Acute hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
</tr>
<tr>
<td>070.43</td>
<td>Hepatitis E with hepatic coma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>070.44</td>
<td>Chronic hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.49</td>
<td>Other specified viral hepatitis with hepatic coma</td>
</tr>
<tr>
<td>070.51</td>
<td>Acute hepatitis C without mention of hepatic coma</td>
</tr>
<tr>
<td>070.52</td>
<td>Hepatitis delta without mention of active hepatitis B disease or hepatic coma</td>
</tr>
<tr>
<td>070.53</td>
<td>Hepatitis E without mention of hepatic coma</td>
</tr>
<tr>
<td>070.54</td>
<td>Chronic hepatitis C without mention of hepatic coma</td>
</tr>
<tr>
<td>070.59</td>
<td>Other specified viral hepatitis without mention of hepatic coma</td>
</tr>
<tr>
<td>070.6</td>
<td>Unspecified viral hepatitis with hepatic coma</td>
</tr>
<tr>
<td>070.70</td>
<td>Unspecified viral hepatitis C without hepatic coma</td>
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<td>Unspecified viral hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.9</td>
<td>Unspecified viral hepatitis without mention of hepatic coma</td>
</tr>
</tbody>
</table>

**CCI Version 20.0**

No CCI Edits apply to this code.
**Explaination**

Code 86706 may be requested as Hepatitis B surface antibody (HBsAb), Hepatitis Bs Ab, HBV surface antibody, or anti-HBs. The presence of HBsAb is indicative of a previous resolved infection or vaccination against hepatitis B. Blood specimen is serum. Methods include radioimmunoassay (RIA), enzyme immunoassay (EIA), immunoradiometric assay (IRMA), and immunoenzymatic assay (IEMA).

Code 86707 may be ordered as hepatitis Be antibody (HBeAb) as Hepatitis Be Ab, HBVe, or anti-HBe. The presence of HBeAb usually indicates a high likelihood of a lesser infectivity and usually points to a benign outcome, although some individuals with HBeAb have chronic hepatitis. Methods include immunoradiometric assay (IRMA) and enzyme immunoassay (EIA). Serum is the required specimen for both procedures.

**Coding Tips**

To report hepatitis B antigen, consult CPT codes 87515-87517. To report B surface antigen, consult CPT codes 87340-87341; hepatitis Be antigen, see code 87350.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>070.0</td>
<td>Viral hepatitis A with hepatic coma</td>
</tr>
<tr>
<td>070.1</td>
<td>Viral hepatitis A without mention of hepatic coma</td>
</tr>
<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.31</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta</td>
</tr>
<tr>
<td>070.32</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta</td>
</tr>
<tr>
<td>070.33</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
</tr>
<tr>
<td>070.41</td>
<td>Acute hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
</tr>
<tr>
<td>070.43</td>
<td>Hepatitis E with hepatic coma</td>
</tr>
<tr>
<td>070.44</td>
<td>Chronic hepatitis C with hepatic coma</td>
</tr>
<tr>
<td>070.49</td>
<td>Other specified viral hepatitis with hepatic coma</td>
</tr>
<tr>
<td>070.51</td>
<td>Acute hepatitis C without mention of hepatic coma</td>
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<td>070.52</td>
<td>Hepatitis delta without mention of active hepatitis B disease or hepatic coma</td>
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<td>Chronic hepatitis C without mention of hepatic coma</td>
</tr>
<tr>
<td>070.59</td>
<td>Other specified viral hepatitis without mention of hepatic coma</td>
</tr>
<tr>
<td>070.6</td>
<td>Unspecified viral hepatitis with hepatic coma</td>
</tr>
<tr>
<td>070.70</td>
<td>Unspecified viral hepatitis C without hepatic coma</td>
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<td>070.71</td>
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<tr>
<td>070.9</td>
<td>Unspecified viral hepatitis without mention of hepatic coma</td>
</tr>
<tr>
<td>571.42</td>
<td>Autoimmune hepatitis</td>
</tr>
<tr>
<td>573.1</td>
<td>Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)</td>
</tr>
<tr>
<td>573.2</td>
<td>Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)</td>
</tr>
<tr>
<td>573.3</td>
<td>Unspecified hepatitis — (Use additional E code to identify cause)</td>
</tr>
<tr>
<td>573.4</td>
<td>Hepatic infarction</td>
</tr>
<tr>
<td>573.5</td>
<td>Hepatopulmonary syndrome — (Code first underlying liver disease, such as: 571.2, 571.5))</td>
</tr>
<tr>
<td>573.8</td>
<td>Other specified disorders of liver</td>
</tr>
<tr>
<td>573.9</td>
<td>Unspecified disorder of liver</td>
</tr>
<tr>
<td>782.4</td>
<td>Jaundice, unspecified, not of newborn</td>
</tr>
<tr>
<td>789.1</td>
<td>Hepatomegaly</td>
</tr>
<tr>
<td>V01.79</td>
<td>Contact or exposure to other viral diseases</td>
</tr>
<tr>
<td>V02.60</td>
<td>Unspecified viral hepatitis carrier</td>
</tr>
<tr>
<td>V02.61</td>
<td>Hepatitis B carrier</td>
</tr>
<tr>
<td>V02.62</td>
<td>Hepatitis C carrier</td>
</tr>
<tr>
<td>V02.69</td>
<td>Other viral hepatitis carrier</td>
</tr>
<tr>
<td>V05.3</td>
<td>Need for prophylactic vaccination and inoculation against viral hepatitis</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
86708  Hepatitis A antibody (HAAb); total
86709  IgM antibody

Explanation
Code 86708 may be ordered as Hepatitis A Antibody (HAAb), HAV antibody, anti-Hep A or anti-HAV total (IgG and IgM). Code 86709 may be ordered as Hepatitis A Antibody (Haas), HAV IgM antibody, anti-Hep A IgM, or anti-HAV IgM. The presence of IgG antibody may indicate acute infection or previous resolved infection, while IgM antibody indicates acute infectious disease. Blood specimen is serum for both procedures. Methods include radioimmunoassay (RIA), enzyme immunoassay (EIA), immunoradiometric assay (IRMA), immunoenzymatic assay (IEMA), and microparticle enzyme immunoassay (MEIA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
042  Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
070.0  Viral hepatitis A with hepatic coma
070.1  Viral hepatitis A without mention of hepatic coma
070.20  Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
070.21  Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
070.22  Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
070.23  Viral hepatitis B with hepatic coma, chronic, with hepatitis delta
070.30  Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
070.31  Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
070.32  Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.33  Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta
070.41  Acute hepatitis C with hepatic coma
070.42  Hepatitis delta without mention of active hepatitis B disease with hepatic coma
070.43  Hepatitis E with hepatic coma
070.44  Chronic hepatitis C with hepatic coma
070.49  Other specified viral hepatitis with hepatic coma
070.51  Acute hepatitis C without mention of hepatic coma
070.52  Hepatitis delta without mention of active hepatitis B disease or hepatic coma
070.53  Hepatitis E without mention of hepatic coma
070.54  Chronic hepatitis C without mention of hepatic coma
070.59  Other specified viral hepatitis without mention of hepatic coma
070.6  Unspecified viral hepatitis with hepatic coma
070.70  Unspecified viral hepatitis B without hepatic coma
070.71  Unspecified viral hepatitis C with hepatic coma
070.9  Unspecified viral hepatitis without mention of hepatic coma
571.42  Autoimmune hepatitis
573.1  Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)
573.2  Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)
573.3  Unspecified hepatitis — (Use additional E code to identify cause)
573.4  Hepatic infarction
573.5  Hepatopulmonary syndrome — (Code first underlying liver disease, such as: 571.2, 571.5)
573.8  Other specified disorders of liver
573.9  Unspecified disorder of liver
782.4  Jaundice, unspecified, not of newborn
789.1  Hepatomegaly
V01.79  Contact or exposure to other viral diseases
V02.60  Unspecified viral hepatitis carrier
V02.61  Hepatitis B carrier
V02.62  Hepatitis C carrier
V02.69  Other viral hepatitis carrier
V05.3  Need for prophylactic vaccination and inoculation against viral hepatitis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
86711

86711  Antibody; JC (John Cunningham) virus

Explanation
This test may be ordered as JCV antibody test. This test is usually performed on patients that are immunocompromised due to disease or medication to assess the risk of developing progressive multifocal leukoencephalopathy (PML). Specimen is serum. Method is enzyme-linked immunosorbent assay (ELISA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
- assay: Test of purity.
- laboratory: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
- 046.3  Progressive multifocal leukoencephalopathy
- 079.89  Other specified viral infection, in conditions classified elsewhere and of unspecified site —  (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
- 079.99  Unspecified viral infection, in conditions classified elsewhere and of unspecified site —  (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Antibody; Leishmania

Explanation
This test is ordered as Leishmania antibody titers or anti-Leishmania. This protozoan infection may also be referred to as kala-azar. The presence of IgG antibody usually indicates previous exposure. The demonstration of IgM or IgA antibodies may establish the diagnosis of a current acute or recent Leishmania infection. Blood specimen is serum. Preferred methods are complement fixation (CF) and enzyme-linked immunosorbent assay (ELISA). However, a number of other methods are employed including indirect hemagglutination (IHA), immunofluorescent assay (IFA), immunoblot, and enzyme immunoassay (EIA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
leishmaniasis. Infection due to species of Leishmania transmitted by various sandfly species.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
085.0 Visceral leishmaniasis (kala-azar)
085.1 Cutaneous leishmaniasis, urban
085.2 Cutaneous leishmaniasis, Asian desert
085.3 Cutaneous leishmaniasis, Ethiopian
085.4 Cutaneous leishmaniasis, American
085.5 Mucocutaneous leishmaniasis, (American)

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<th>Fac PE</th>
<th>Malpractice</th>
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<td>0.00</td>
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</tr>
</tbody>
</table>
Antibody; lymphogranuloma venereum

Explanation
This test is ordered as Chlamydia trachomatis antibody titers or LGV antibody titers. It may also be ordered as anti-LGV or anti-Chlamydia trachomatis. Lymphogranuloma Venereum is a sexually transmitted infection caused by C. trachomatis L1, L2, and L3 serovars (rarely reported in the United States). The presence of antibodies alone cannot positively differentiate LGV from other chlamydial infections. Testing must be correlated with clinical evidence of LGV. Blood specimen is serum. Immunofluorescent assay (IFA) and complement fixation (CF) methods are employed in identifying an antibody response.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Venereal diseases caused by Chlamydia trachomatis are classified to subcategory 099.5. Report a fifth digit to indicate the site of the infection. In some instances a second code is necessary to add additional specificity. For example, if reporting a vaginal infection due to Chlamydia trachomatis, codes 099.53 and 616.11 should be reported.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
chlamydia trachomatis. Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter's syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
099.1 Lymphogranuloma venereum
099.50 Chlamydia trachomatis infection of unspecified site
099.51 Chlamydia trachomatis infection of pharynx
099.52 Chlamydia trachomatis infection of anus and rectum
099.53 Chlamydia trachomatis infection of lower genitourinary sites — (Use additional code to specify site of infection: 595.4, 616.0, 616.11)
099.54 Chlamydia trachomatis infection of other genitourinary sites — (Use additional code to specify site of infection: 604.91, 614.9)
099.55 Chlamydia trachomatis infection of unspecified genitourinary site
099.56 Chlamydia trachomatis infection of peritoneum
099.59 Chlamydia trachomatis infection of other specified site

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
This test may be ordered as mumps antibody titers or anti-mumps titers. Testing may be performed to diagnose an acute infection or to evaluate immune status. The presence of IgG antibody alone usually indicates previous exposure and immunity. IgM antibodies in combination with IgG establish the diagnosis of a current acute or recent mumps infection. Blood specimen is serum. Preferred methods include enzyme immunoassay (EIA) and virus neutralization test (NT). Other methods that may be employed include hemagglutination inhibition (HAI), complement fixation (CF), indirect fluorescent antibody (IFA), and hemolysis in gel.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
encephalitis. Inflammation of the brain, often caused by viral or bacterial infection. Code assignment requires more than one code and is dependent upon the specific infectious agent (herpes simplex, rubella, meningococcus), the type of underlying disease (viral, rickettsial, protozoal, other infectious disease), or whether it occurs postinfection, postimmunization, or from toxic poisoning.
meningitis. Inflammation of meningeal layers of the brain.
neuropathy. Abnormality, disease, or malfunction of the nerves.
orchitis. Testicular inflammation.
pancreatitis. Inflammation of the pancreas that may be acute or chronic, symptomatic or asymptomatic. The inflammation is due to the autodigestion of pancreatic tissue by its own enzymes that have escaped into the pancreas, most often as a result of alcoholism or biliary tract disease such as calculi in the pancreatic duct. This may appear as sudden or recurring abdominal pain with nausea and vomiting, and hemorrhaging into surrounding tissue. Pancreatitis is also associated with trauma to the abdomen, hyperlipidemia, and hyperparathyroidism. Pancreatitis is reported with a code from ICD-9-CM category 577.

ICD-9-CM Diagnostic Codes
072.0 Mumps orchitis
072.1 Mumps meningitis
072.2 Mumps encephalitis

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Antibody; mycoplasma

Explanation
This test is ordered as Mycoplasma antibody titers. It may also be ordered as anti-walking pneumonia, primary atypical pneumonia (PAP), pleuropneumonia-like organism (PPLO), or anti-Mycoplasma titers. The presence of IgG antibody usually indicates previous exposure to Mycoplasma. The demonstration of IgM antibodies is required to establish the diagnosis of a current acute or recent Mycoplasma infection. Blood specimen is serum. Methods include immunofluorescent assay (IFA), complement fixation (CF), and enzyme immunoassay (EIA), and IgM antibody agglutination.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Signs and symptoms of pneumonia vary according to etiology, but often include coughing, sputum production, pleuritic chest pain, rales, and fever. The presence of infiltration or consolidation is usually evident on radiological exam. Blood work may show abnormal or elevated white blood cell (WBC) count. Smears, cultures, and gram stains of sputum and/or pleural fluid isolate and identify bacteria. Percutaneous aspiration of lung tissue, endoscopic or open lung biopsy identifies difficult nonbacterial agents such as cytomegalovirus. Pneumonia should always be coded to the highest specificity, which often includes the indication of the causative agent.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
pneum(o)-. Relating to respiration, air, the lungs.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
483.0 Pneumonia due to Mycoplasma pneumoniae
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Antibody; Neisseria meningitidis

Explanation
This test is ordered as N. meningitidis antibody titers. It may also be ordered as anti-Neisseria meningitidis. This is the causative agent of meningococcal meningitis. The presence of IgG antibody usually indicates previous exposure to N. meningitidis. The demonstration of IgM or IgA antibodies may establish the diagnosis of a current acute or recent meningitidis infection. Blood specimen is serum. CSF is obtained by spinal puncture that is reported separately. Method is enzyme-linked immunosorbent assay (ELISA).

Coding Tips
Spinal puncture is separately payable. Report CPT code 62270.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
meningitis. Inflammation of meningeal layers of the brain.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
036.0 Meningococcal meningitis
036.1 Meningococcal encephalitis
036.2 Meningococcal meningitis
036.3 Waterhouse-Friderichsen syndrome, meningococcal
036.40 Meningococcal carditis, unspecified
036.41 Meningococcal pericarditis
036.42 Meningococcal endocarditis
036.43 Meningococcal myocarditis
036.81 Meningococcal optic neuritis
036.82 Meningococcal arthropathy
036.89 Other specified meningococcal infections
036.9 Unspecified meningococcal infection
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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Explanation
This test is ordered as Nocardia antibody titers. It may also be ordered as anti-Nocardia titers. Pathogenic species of Nocardia include N. asteroides, N. brasiliensis, N. caviae, N. farcinica, N. transvalensis, and N. nova. Nocardiosis generally occurs only in immunosuppressed individuals and presents as suppurative or cavitary pneumonia, cutaneous abscesses, or mycetoma formation on an extremity. The presence of IgG antibody usually indicates previous exposure to Nocardia. The demonstration of IgM or IgA antibodies may establish the diagnosis of a current acute or recent Nocardia infection. Blood specimen is serum. Method is enzyme-linked immunosorbent assay (ELISA) or Western blot.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
abscess. Circumscribed collection of pus resulting from bacteria, frequently associated with swelling and other signs of inflammation.
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
nocardiosis. Rare bacterial infection occurring most often in those with weakened immune systems. It typically begins in the lungs and has a tendency to spread to other body systems, particularly the brain and skin. Involvement of the kidneys, joints, heart, eyes, and bones may also occur. Report this condition with a code from ICD-9-CM rubric 039.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
039.0 Cutaneous actinomycotic infection
039.1 Pulmonary actinomycotic infection
039.2 Abdominal actinomycotic infection
039.3 Cervicofacial actinomycotic infection
039.4 Madura foot
039.8 Actinomycotic infection of other specified sites
039.9 Actinomycotic infection of unspecified site

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**86747**

86747  Antibody; parvovirus

**Explanation**
This test may be ordered as Parvovirus antibody titers, anti-Parvovirus titers, or Parvo B19 antibody titers. The presence of IgG antibody usually indicates previous exposure to Parvovirus B19. The demonstration of IgM antibodies may establish the diagnosis of a current acute or recent Parvovirus B19 infection. Blood specimen is serum. Enzyme-linked immunosorbent assay (ELISA), radioimmunoassay (RIA), and Western blot are among methods employed in identifying an antibody response to Parvovirus B19.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400–36406. When venipuncture is on a patient 3 years of age or older requires physician skill, see code 36410. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Codes in category 079 are provided to be used as an additional code to identify the viral agent in diseases classifiable elsewhere.

**Terms To Know**
- **antibody**: Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **laboratory**: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**Parvovirus B19**: Only known parvovirus to cause disease in humans. Manifestation is erythema infectosum. This parvovirus is also associated with polyarthropathy, chronic anemia, red cell aplasia, and fetal hydrops.

**ICD-9-CM Diagnostic Codes**
- 079.83  Parvovirus B19

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

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86750
86750  Antibody; Plasmodium (malaria)

Explanation
This test is ordered as malaria antibody titers. This test is used primarily
to screen blood donors. Specimen is whole blood. Method is indirect
immunofluorescence (IIF).

Coding Tips
To report malaria smear, consult CPT code 87207. Venipuncture is
separately reportable. For collection of venous blood by venipuncture,
see code 36415. When venipuncture on a patient 3 years of age or
older requires the skill of a physician or other qualified health care
provider, see code 36410. For venipuncture on a patient younger than
3 years of age performed by a physician or other qualified health care
provider, see codes 36400-36406. Most third-party payers and state
scope of work exclude the use of a code requiring a physician or other
qualified health care provider, by a phlebotomist, or other unlicensed
clinical staff. If a specimen is transported to an outside laboratory, report
code 99000 for handling.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building
block sequence to interact only with its specific antigen.
malaria. Mosquito-borne parasitic infective disease manifested by cyclical
chills, fever, and sweating.
venipuncture. Piercing a vein through the skin by a needle and syringe or
sharp-ended cannula or catheter to draw blood, start an intravenous infusion,
instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
084.0  Falciparum malaria (malignant tertian)
084.1  Vivax malaria (benign tertian)
084.2  Quartan malaria
084.3  Ovale malaria
084.4  Other malaria
084.5  Mixed malaria
084.6  Unspecified malaria
084.7  Induced malaria
084.8  Blackwater fever
084.9  Other pernicious complications of malaria — (Use
       additional code to identify complication: 573.2, 581.81)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to
your Laboratory Cross Coder to determine if other diagnoses are
applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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86756

86756  Antibody; respiratory syncytial virus

Explanation
This test is ordered as RSV antibody titers. It may also be ordered as anti-respiratory syncytial viral titers, and anti-RSV titers. The presence of IgG antibody usually indicates previous exposure to respiratory syncytial virus. The demonstration of IgM antibodies may establish the diagnosis of a current acute or recent infection. Blood specimen is serum. Enzyme-linked immunosorbent assay (ELISA), enzyme immunoassay (EIA), and complement fixation (CF) are among methodologies employed in identifying an antibody response.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
RSV. Respiratory syncytial virus.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
079.6  Respiratory syncytial virus (RSV) — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
466.11  Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)
480.1  Pneumonia due to respiratory syncytial virus
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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**86757**

**Explanation**
This test may also be ordered by the name of the suspected rickettsial pathogen (e.g., Rocky Mountain Spotted Fever, typhus). Blood specimen is serum. Methods include enzyme-linked immunosorbent assay (ELISA) with indirect fluorescent antibody (IFA) confirmation.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
rickettsia. Condition caused by bacteria that live in lice/ticks transmitted to humans through bites.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

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<td>Louse-borne (epidemic) typhus</td>
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<tr>
<td>081.0</td>
<td>Murine (endemic) typhus</td>
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<td>081.1</td>
<td>Brill's disease</td>
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<td>Scrub typhus</td>
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<td>082.0</td>
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<td>Boutonneuse fever</td>
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<td>082.2</td>
<td>North Asian tick fever</td>
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<td>082.3</td>
<td>Queensland tick typhus</td>
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<td>082.40</td>
<td>Ehrlichiosis, unspecified</td>
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<td>082.49</td>
<td>Other ehrlichiosis</td>
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<td>082.8</td>
<td>Other specified tick-borne rickettioses</td>
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<td>082.9</td>
<td>Unspecified tick-borne rickettiosis</td>
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<tr>
<td>083.0</td>
<td>Q fever</td>
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<td>083.1</td>
<td>Trench fever</td>
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<td>Rickettsialpox</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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86759
Antibody; rotavirus

Explanation
This test is ordered as rotavirus antibody titer. It may also be ordered as anti-rotavirus titer, Adenovirus 40-41 antibody titer, and anti-rotavirus titer. The presence of IgG antibody usually indicates previous exposure to rotavirus. The demonstration of IgM antibodies may establish the diagnosis of a recent or current rotavirus infection. Blood specimen is serum. Enzyme-linked immunosorbent assay (ELISA) and radioimmunoassays (RIA) are among methods employed in identifying antibody response to the specific to rotavirus.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Infective organisms classified to categories 001-139 include, bacteria, Chlamydia, fungi, helminths, mycoplasms, protozoans, rickettsias, and viruses. This chapter classifies infectious and parasitic diseases by anatomic site, by type of infectious organism or parasite, as well as by a combination of site and type of organism.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
rotavirus. Genus of viruses having a wheel-like shape belonging to the family Reoviridae. This is an RNA virus with six separate serotypes, only three of which-A, B, and C-cause disease in humans, namely acute, severe gastroenteritis and diarrhea in infants and young children. Transmission is fecal-oral route. Rotavirus infection is reported with ICD-9-CM code 008.61.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
008.61 Intestinal infection, enteritis due to rotavirus
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
This test is ordered as rubella antibody titers. It may also be ordered as German measles antibody titers, and anti-rubella titers. The test is used primarily to evaluate immune status. The presence of rubella IgG and IgM antibodies may indicate previous exposure, vaccination, or current acute infection. Blood specimen is serum. Enzyme-linked immunosorbent assay (ELISA), enzyme immunoassay (EIA), and latex agglutination (LA) are among methods used in identifying antibody response, with ELISA being more common in larger, high volume laboratories.

Coding Tips
Report 056.9 to indicate rubella without mention of complications. Neurologic complications are classified to subcategory code 056.0. A fifth digit indicates the nature of the complication. Other specified complications are classified to code 056.7 and also require a fifth digit to further clarify the complications. When the exact nature of the complication is unknown, see code 056.8.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
rubella syndrome. Developmental abnormalities of a newborn baby as resulting from transplacental transference of rubella during the first trimester of pregnancy. Symptoms include ocular and cardiac lesions, deafness, microcephaly, mental retardation, hepatitis, encephalitis, and others.

ICD-9-CM Diagnostic Codes

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<td>Unspecified rubella neurological complication</td>
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<td>Encephalomyelitis due to rubella</td>
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<td>056.09</td>
<td>Other neurological rubella complications</td>
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<td>Rubella with other specified complications</td>
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<td>056.8</td>
<td>Unspecified rubella complications</td>
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<td>Rubella without mention of complication</td>
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<td>647.51</td>
<td>Maternal rubella with delivery — (Use additional code to further specify complication)</td>
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<tr>
<td>647.52</td>
<td>Maternal rubella with delivery, with current postpartum complication — (Use additional code to further specify complication)</td>
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<td>647.53</td>
<td>Maternal rubella, antepartum — (Use additional code to further specify complication)</td>
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<tr>
<td>647.54</td>
<td>Maternal rubella complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code to further specify complication)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
86765
86765  Antibody; rubeola

Explanation
This test is ordered as rubeola antibody titers. It may also be ordered as measles antibody titers, anti-measles titers and anti-rubeola titers. This test is used primarily to evaluate immune status as clinical symptoms related to acute infection make laboratory testing unnecessary. CSF specimen is used for diagnosis of subacute sclerosing panencephalitis (SSPE). The presence of rubeola IgG antibody alone usually indicates previous exposure to rubeola. Both IgG and IgM antibodies are present with a current acute or recent rubeola infection. Blood specimen is serum. CSF specimen is reported separately. Hemagglutination inhibition test (HAI) is the preferred method of testing for immune status. Enzyme-linked immunosorbent assay (ELISA), enzyme immunoassay (EIA), complement fixation (CF), and neutralization test (NT) are other methods commonly employed in identifying an antibody response.

Coding Tips
Rubella is classified to category 055. Appropriate code selection is dependent upon any complications associated with the disease process. If no complications are present, assign code 055.9. Lumbar puncture for obtaining CSF fluid is reported separately. Consult CPT code 62270.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
CSF. Cerebrospinal fluid.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
046.2 Subacute sclerosing panencephalitis
055.0 Postmeasles encephalitis
055.1 Postmeasles pneumonia
055.2 Postmeasles otitis media
055.71 Measles keratoconjunctivitis
055.79 Other specified measles complications
055.8 Unspecified measles complication
055.9 Measles without mention of complication

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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This test is ordered as Salmonella antibody titers. It may also be ordered as anti-Salmonella titers, S. typhi antibody titers or Salmonella typhi antibody titers. The presence of Salmonella IgG antibody usually indicates previous exposure to salmonella. The demonstration of Salmonella IgM antibodies may establish the diagnosis of a recent or current salmonella infection. The specimen is serum, Enzyme-linked immunosorbent assay (ELISA) principles are most commonly employed in identifying an antibody response to the specific Salmonella. Agglutination principles may be utilized for the identification of S. typhi antibody.

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Salmonella is classified to category 003. Appropriate code selection is dependent upon the manifestation of the disease.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
salmonellosis. Infection with the Salmonella bacteria. Common symptoms include diarrhea, fever, and abdominal cramps within 12 to 72 hours after infection with duration of four to seven days. Most persons infected with Salmonella recover without treatment, however patients with severe symptoms may need medical management in the hospital setting, particularly for hydration. In some instances, Salmonella infection may spread to the blood stream and infect other body sites resulting in death unless antibiotic treatment is started without delay. Patients with impaired immune systems, the elderly, and infants are more likely to develop severe infection. Salmonella infections are classified to ICD-9-CM category 003.

ICD-9-CM Diagnostic Codes
002.0 Typhoid fever
003.0 Salmonella gastroenteritis
003.1 Salmonella septicemia
003.20 Unspecified localized salmonella infection
003.21 Salmonella meningitis
003.22 Salmonella pneumonia
003.23 Salmonella arthritis
003.24 Salmonella osteomyelitis

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Explanation
This test is ordered as Shigella antibody titers. It may also be ordered as anti-Salmonella titers. The presence of Shigella IgG antibody usually indicates previous exposure to Shigella. The demonstration of Shigella IgM antibodies may establish the diagnosis of a recent or current Shigella infection. Blood specimen is serum. Enzyme-linked immunosorbent assay (ELISA) principles are most commonly employed in identifying an antibody response to the specific to Shigella. Agglutination principles may also be utilized for the identification of Shigella.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
shigellosis. Infection by the rod-shaped, nonmotile, gram-negative bacteria of the genus Shigella, from the family Enterobacteriaceae. Known to cause an acute dysenteric infection of the bowel with fever, drowsiness, anorexia, nausea, vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected individuals is the most common source of infection. Incubation period is one to four days. There are four species in the Shigella genus, and they differ according to their biochemical reactions. All cause dysentery in humans and some primates. Shigellosis is reported with ICD-9-CM code 004.0. A suspected Shigella carrier is reported with ICD-9-CM code V02.3.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
004.0 Shigella dysenteriae
004.1 Shigella flexneri
004.2 Shigella boydii
004.3 Shigella sonnei
004.8 Other specified shigella infections
004.9 Unspecified shigelllosis

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86774

Antibody; tetanus

Explanation
This test is ordered as tetanus antibody titers. It may also be ordered as anti-tetanus titers, or Clostridium tetani antibody titers. This test is not commonly used as a diagnostic test for acute infection. It may be used to evaluate immune status. Blood specimen is serum. Titration of tetanus antitoxin neutralization principles is the most common method. Agglutination, passive hemagglutination, or enzyme-linked immunosorbent assay (ELISA) principles may also be utilized.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Tetanus is classified to category 037, which is one of the few valid three-digit category codes.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
tetanus. Acute, often fatal, infectious disease caused by the anaerobic, spore-forming bacillus Clostridium tetani. The bacillus enters the body through a contaminated wound, burn, surgical wounds, or cutaneous ulcers. Symptoms include lockjaw, spasms, seizures, and paralysis. Report this condition with ICD-9-CM code 037.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

ICD-9-CM Diagnostic Codes
037  Tetanus
771.3  Tetanus neonatorum — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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</table>
**86777-86778**

*86777* Antibody; Toxoplasma

*86778* Toxoplasma, IgM

**Explanation**

The presence of Toxoplasma IgG antibody may indicate current or past infection. Code 86777 is ordered as Toxoplasma IgG antibody titers. It may also be ordered as anti-Toxoplasma IgG titers, or toxo IgG titers. Code 86778 is ordered as Toxoplasma IgM antibody titers. It may also be ordered as anti-Toxoplasma IgM titers, or toxo IgM titers. The demonstration of Toxoplasma IgM antibodies may establish the diagnosis of a recent or current infection. Specimen is blood serum or amniotic fluid collected by amniocentesis that is reported separately. Enzyme-linked immunosorbent assay (ELISA) or immunofluorescent assay (IFA) principles may be used for the identification of toxoplasma IgG or IgM antibody.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Amniocentesis is separately reportable. To report, consult CPT code 59000.

**Terms To Know**

- **antibody.** Immunoglobin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **toxoplasmosis.** Infection caused by spores invading body tissues.
- **venipuncture.** Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>130.0</td>
<td>Meningoencephalitis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.1</td>
<td>Conjunctivitis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.2</td>
<td>Chorioretinitis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.3</td>
<td>Myocarditis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.4</td>
<td>Pneumonitis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.5</td>
<td>Hepatitis due to toxoplasmosis</td>
</tr>
<tr>
<td>130.7</td>
<td>Toxoplasmosis of other specified sites</td>
</tr>
<tr>
<td>130.8</td>
<td>Multisystemic disseminated toxoplasmosis</td>
</tr>
<tr>
<td>130.9</td>
<td>Unspecified toxoplasmosis</td>
</tr>
</tbody>
</table>
| 771.2 | Other congenital infection specific to the perinatal period — (Use additional code(s) to further specify condition)

**Coding and Payment Guide for Laboratory Services**

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Antibody; Treponema pallidum

**Explanation**
Treponema pallidum antibody tests are used to screen and confirm syphilis. This test may be ordered as a screening or confirmatory test for syphilis or as a screening or confirmatory test for a positive venereal disease research lab test (VDRL), rapid plasma reagent (RPR), or serologic test (STS) for syphilis. Blood specimen is serum. Fluorescent antibody (FA) or FTA principles are most commonly employed in identifying an antibody response to the specific syphilis. Agglutination or flocculation of cardiolipin principles may also be used for the identification of syphilis antibody.

**Coding Tips**
To report syphilis testing by nontreponemal antibody analysis, consult CPT codes 86592-86593.

**ICD-9-CM Diagnostic Codes**
- **090.0** Early congenital syphilis, symptomatic
- **090.1** Early congenital syphilis, latent
- **090.2** Unspecified early congenital syphilis
- **090.3** Syphilitic interstitial keratitis
- **090.40** Unspecified juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
- **090.41** Congenital syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
- **090.42** Congenital syphilitic meningitis — (Use additional code to identify any associated mental disorder)
- **090.49** Other juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
- **090.5** Other late congenital syphilis, symptomatic
- **090.6** Late congenital syphilis, latent
- **090.7** Late congenital syphilis, unspecified
- **090.9** Congenital syphilis, unspecified
- **091.0** Genital syphilis (primary)
- **091.1** Primary anal syphilis
- **091.2** Other primary syphilis
- **091.3** Secondary syphilis of skin or mucous membranes
- **091.4** Adenopathy due to secondary syphilis
- **091.50** Early syphilis, syphilitic uveitis, unspecified
- **091.51** Early syphilis, syphilitic chorioretinitis (secondary)
- **091.52** Early syphilis, syphilitic iridocyclitis (secondary)
- **091.61** Early syphilis, secondary syphilitic periorchitis
- **091.62** Early syphilis, secondary syphilitic hepatitis
- **091.69** Early syphilis, secondary syphilis of other viscera
- **091.7** Early syphilis, secondary syphilis, relapse
- **091.81** Early syphilis, acute syphilitic meningitis (secondary)
- **091.82** Early syphilis, syphilitic alopecia
- **091.89** Early syphilis, other forms of secondary syphilis
- **091.9** Early syphilis, unspecified secondary syphilis
- **092.0** Early syphilis, latent, serological relapse after treatment
- **092.9** Early syphilis, latent, unspecified
- **093.0** Aneurysm of aorta, specified as syphilitic
- **093.1** Syphilitic aortitis
- **093.20** Unspecified syphilitic endocarditis of valve
- **093.21** Syphilitic endocarditis, mitral valve
- **093.22** Syphilitic endocarditis, aortic valve
- **093.23** Syphilitic endocarditis, tricuspid valve
- **093.24** Syphilitic endocarditis, pulmonary valve
- **093.81** Syphilitic pericarditis
- **093.82** Syphilitic myocarditis
- **093.89** Other specified cardiovascular syphilis
- **093.9** Unspecified cardiovascular syphilis
- **094.0** Tabes dorsalis — (Use additional code to identify any associated mental disorder. Use additional code to identify manifestation: 713.5)
- **094.1** General paresis — (Use additional code to identify any associated mental disorder)
- **094.2** Syphilitic meningitis — (Use additional code to identify any associated mental disorder)
- **094.3** Asymptomatic neurosyphilis — (Use additional code to identify any associated mental disorder)
- **094.81** Syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
- **094.82** Syphilitic Parkinsonism — (Use additional code to identify any associated mental disorder)
- **094.83** Syphilitic disseminated retinochoroiditis — (Use additional code to identify any associated mental disorder)
- **094.89** Other specified neurosyphilis — (Use additional code to identify any associated mental disorder)
- **095.8** Other specified forms of late symptomatic syphilis
- **097.1** Unspecified latent syphilis
- **097.9** Unspecified syphilis
- **V01.6** Contact with or exposure to venereal diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

**CCI Version 20.0**

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Antibody; varicella-zoster

Explanation
This test may be requested as VZV antibody titers, chicken pox antibody titers, or herpes zoster antibody titers. This test is performed primarily to evaluate immune status. Blood specimen is serum. Methods may include enzyme immunoassay (EIA), enzyme-linked immunosorbent assay (ELISA), complement fixation, and fluorescent antibody against membrane antigen (FAMA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. is reported with a code from category 052. Complications, if any, are indicated by the fourth-digit subclassification.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
varicella-zoster. Contagious viral infection causing rash with pustules and fever. This condition is reported with ICD-9-CM codes 052.0-052.9. Synonym(s): chickenpox.

ICD-9-CM Diagnostic Codes
052.0    Postvaricella encephalitis
052.1    Varicella (hemorrhagic) pneumonitis
052.7    Chickenpox with other specified complications
052.8    Chickenpox with unspecifed complication
052.9    Varicella without mention of complication
053.0    Herpes zoster with meningitis
053.10   Herpes zoster with unspecified nervous system complication
053.11   Geniculate herpes zoster
053.12   Postherpetic trigeminal neuralgia
053.13   Postherpetic polyneuropathy
053.19   Other herpes zoster with nervous system complications
053.20   Herpes zoster dermatitis of eyelid
053.21   Herpes zoster keratoconjunctivitis
053.22   Herpes zoster iridocyclitis
053.29   Other ophthalmic herpes zoster complications
053.71   Otitis externa due to herpes zoster
053.79   Other specified herpes zoster complications
053.8    Unspecified herpes zoster complication

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CCI Version 20.0
No CCI Edits apply to this code.
Antibody; West Nile virus, IgM

Explanation
Code 86788 is commonly ordered as WNV IgM. Method used is an antibody capture enzyme-linked immunosorbent assay. WNV IgM of cerebrospinal fluid is the most definitive test for WNV of the central nervous system, as antibodies may persist in the blood for more than a year following a resolved infection. WNV IgM will be positive only if a WNV infection has been active for at least eight days. Code 86789 is commonly ordered as WNV IgG. Method used is enzyme immunoassay, plaque reduction neutralization, or hemagglutination inhibition. WNV IgG will be positive only if a WNV infection has been active for at least three weeks. Specimen is cerebrospinal fluid or blood serum for both tests. West Nile virus usually causes a mild infection, but in some cases, leads to life-threatening encephalitis or meningitis.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Spinal puncture for obtaining cerebrospinal fluid is separately reportable. Consult CPT code 62270.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
encephalitis. Inflammation of the brain, often caused by viral or bacterial infection. Code assignment requires more than one code and is dependent upon the specific infectious agent (herpes simplex, rubella, meningococcus), the type of underlying disease (viral, rickettsial, protozoal, other infectious disease), or whether it occurs postinfection, postimmunization, or from toxic poisoning.
meningitis. Inflammation of meningeal layers of the brain.

ICD-9-CM Diagnostic Codes
066.40 West Nile fever, unspecified — (Use additional code to identify any associated meningitis: 321.2)
066.41 West Nile fever with encephalitis — (Use additional code to identify any associated meningitis: 321.2)
066.42 West Nile fever with other neurologic manifestation — (Use additional code to specify the neurologic manifestation. Use additional code to identify any associated meningitis: 321.2)
86793
86793  Antibody; Yersinia

Explanation
This test is ordered as Yersinia antibody titers or by species name including Y. enterocolitica antibody and Y. pestis (bubonic plague) antibody. Blood specimen is serum. A common method used is agglutination. However, newer techniques are also used that include an immunoblot, enzyme-linked immunosorbent assay (ELISA), indirect fluorescent antibody (IFA).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
bubonic plague. Highly contagious, most common form of plague, caused by infection of Yersinia pestis. It is characterized by onset of fever, chills, headache, and swollen, tender, inflamed lymph glands called buboes, which develop intravascular coagulation, turning necrotic and gangrenous. Report this condition with ICD-9-CM code 020.0. Synonym(s): black death, glandular plague, pestis bubonica.
venipuncture. Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.
yersinia enterocolitica. Species of gram-negative, facultative anaerobes responsible for yersiniosis, a form of acute gastroenteritis that can lead to mesenteric lymphadenitis in children with subsequent arthritis, and septicemia in adults. Yersinia enterocolitica is reported with ICD-9-CM code 008.44.

ICD-9-CM Diagnostic Codes
020.0  Bubonic plague
027.8  Other specified zoonotic bacterial diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**86800**

**Thyroglobulin antibody**

**Explanation**

This test is ordered as thyroglobulin antibody titers or anti-thyroglobulin. The presence of thyroglobulin antibody usually indicates presence of circulating autoantibodies in patients with endocrine disease (i.e., thyroiditis, Graves’ disease). The specimen is serum. Methods may include enzyme-linked immunosorbent assay (ELISA), tanned RBC agglutination test, radiobinding assay, and immunoradiometric assay (IRMA).

**Coding Tips**

To report thyroglobulin, consult CPT code 84432.

**ICD-9-CM Diagnostic Codes**

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<th>Description</th>
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<td>Malignant neoplasm of thyroid gland — (Use additional code to identify any functional activity)</td>
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<tr>
<td>240.0</td>
<td>Goiter, specified as simple</td>
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<tr>
<td>241.0</td>
<td>Nontoxic uniodular goiter</td>
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<td>241.1</td>
<td>Nontoxic multinodular goiter</td>
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<tr>
<td>242.00</td>
<td>Toxic diffuse goiter without mention of thyrotoxic crisis or storm</td>
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<td>242.01</td>
<td>Toxic diffuse goiter with mention of thyrotoxic crisis or storm</td>
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<td>242.10</td>
<td>Toxic uniodular goiter without mention of thyrotoxic crisis or storm</td>
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<td>Toxic uniodular goiter with mention of thyrotoxic crisis or storm</td>
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<td>Toxic multinodular goiter without mention of thyrotoxic crisis or storm</td>
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<td>Toxic multinodular goiter with mention of thyrotoxic crisis or storm</td>
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<td>Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm</td>
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<td>242.31</td>
<td>Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm</td>
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<td>242.40</td>
<td>Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm</td>
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<td>Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm</td>
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<td>242.80</td>
<td>Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
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<td>Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm — (Use additional E code to identify cause, if drug-induced)</td>
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<td>Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm</td>
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<td>Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm</td>
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<td>243</td>
<td>Congenital hypothyroidism — (Use additional code to identify associated intellectual disabilities)</td>
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<td>Iodine hypothyroidism — (Use additional E code to identify drug)</td>
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<td>Other iatrogenic hypothyroidism — (Use additional E code to identify drug)</td>
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<td>Other specified acquired hypothyroidism</td>
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<td>Chronic fibrous thyroiditis</td>
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<td>245.4</td>
<td>Iatrogenic thyroiditis — (Use additional code to identify cause)</td>
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<td>246.1</td>
<td>Dyshormonogenic goiter</td>
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<td>252.1</td>
<td>Hypoparathyroidism</td>
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<td>648.10</td>
<td>Maternal thyroid dysfunction complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable — (Use additional code(s) to identify the condition)</td>
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<td>648.11</td>
<td>Maternal thyroid dysfunction with delivery, with or without mention of antepartum condition — (Use additional code(s) to identify the condition)</td>
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<td>648.12</td>
<td>Maternal thyroid dysfunction with delivery, with current postpartum complication — (Use additional code(s) to identify the condition)</td>
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<td>648.13</td>
<td>Maternal thyroid dysfunction, antepartum condition or complication — (Use additional code(s) to identify the condition)</td>
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<td>648.14</td>
<td>Maternal thyroid dysfunction complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code(s) to identify the condition)</td>
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<tr>
<td>794.5</td>
<td>Nonspecific abnormal results of thyroid function study</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.

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<th>Code</th>
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86803-86804

86803  Hepatitis C antibody;
86804  confirmatory test (eg, immunoblot)

Explanation

These tests may be ordered as hepatitis C antibody titers. They may also be ordered as anti-hepatitis C titers, HCV Ab titers, and anti-HCV titers. 86803 is normally used for an initial hepatitis C screen. Positive or unequivocal tests are repeated using different techniques that are reported separately. Methods may include enzyme-linked immunosorbent assay (ELISA) or enzyme immunoassay (EIA). Report 86804 when Hepatitis C antibody is a confirmatory test, such as immunoblot. Recombinant immunoblot assay (RIBA) principles may be employed in identifying an antibody response to the specific hepatitis C virus. The presence of IgG antibody by RIBA is a confirmatory test. Both tests require serum as the specimen.

Coding Tips

To report hepatitis C antigen, consult CPT codes 87520-87522. If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance. Code 86803 may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

ICD-9-CM Diagnostic Codes

042  Human immunodeficiency virus (HIV) — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
070.0  Viral hepatitis A with hepatic coma
070.1  Viral hepatitis A without mention of hepatic coma
070.20  Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
070.21  Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
070.22  Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
070.23  Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
070.30  Viral hepatitis B with hepatic coma, chronic, with hepatitis delta
070.31  Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
070.32  Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
070.33  Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.41  Acute hepatitis C with hepatic coma
070.42  Hepatitis delta without mention of active hepatitis B disease with hepatic coma
070.43  Hepatitis E with hepatic coma
070.44  Chronic hepatitis C with hepatic coma
070.49  Other specified viral hepatitis with hepatic coma
070.51  Acute hepatitis C without mention of hepatic coma
070.52  Hepatitis delta without mention of active hepatitis B disease or hepatic coma
070.53  Hepatitis E without mention of hepatic coma
070.54  Chronic hepatitis C without mention of hepatic coma
070.59  Other specified viral hepatitis without mention of hepatic coma
070.6  Unspecified viral hepatitis with hepatic coma
070.70  Unspecified viral hepatitis C without hepatic coma
070.71  Unspecified viral hepatitis C with hepatic coma
070.9  Unspecified viral hepatitis without mention of hepatic coma
573.1  Hepatitis in viral diseases classified elsewhere — (Code first underlying disease: 074.8, 075, 078.5)
573.2  Hepatitis in other infectious diseases classified elsewhere — (Code first underlying disease: 084.9)
573.3  Unspecified hepatitis — (Use additional E code to identify cause)
782.4  Jaundice, unspecified, not of newborn
V01.79  Contact or exposure to other viral diseases
V02.60  Unspecified viral hepatitis carrier
V02.61  Hepatitis B carrier
V02.62  Hepatitis C carrier
V02.69  Other viral hepatitis carrier

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-4,16,70.8

CCI Version 20.0

No CCI Edits apply to this code.

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</table>

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86812-86813

86812  HLA typing; A, B, or C (eg, A10, B7, B27), single antigen
86813  A, B, or C, multiple antigens

Explanation
These tests may also be ordered as histocompatibility antigens test, Class I (or Class III) antigens test, or according to specific multiple antigens (e.g., A10-B-2). This test pertains primarily to matching potential donor tissues to transplant patients. This test determines HLA compatibility of multiple antigens. Method involves mixing purified donor lymphocytes with a known sera and complement. A culture is prepared and cytotoxic reaction (cell death) is monitored. Report 86812 for single antigen; 86813 for multiple antigens.

Coding Tips
To report HLA typing by molecular pathology techniques, consult CPT codes 81370–81383. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **culture**: Growth of microorganisms in a medium conducive to their development.
- **donor**: Person from whom tissues or organs are removed for transplantation.

ICD-9-CM Diagnostic Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>099.3</td>
<td>Reiter's disease — (Use additional code for associated conditions: 372.33, 711.1)</td>
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<tr>
<td>200.00</td>
<td>Reticulosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.01</td>
<td>Reticulosarcoma of lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>200.02</td>
<td>Reticulosarcoma of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>200.03</td>
<td>Reticulosarcoma of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>200.04</td>
<td>Reticulosarcoma of lymph nodes of axilla and upper limb</td>
</tr>
<tr>
<td>200.05</td>
<td>Reticulosarcoma of lymph nodes of inguinal region and lower limb</td>
</tr>
<tr>
<td>200.06</td>
<td>Reticulosarcoma of intrapelvic lymph nodes</td>
</tr>
<tr>
<td>200.07</td>
<td>Reticulosarcoma of spleen</td>
</tr>
<tr>
<td>200.08</td>
<td>Reticulosarcoma of lymph nodes of multiple sites</td>
</tr>
<tr>
<td>200.10</td>
<td>Lymphosarcoma, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>200.11</td>
<td>Lymphosarcoma of lymph nodes of head, face, and neck</td>
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<tr>
<td>200.12</td>
<td>Lymphosarcoma of intrathoracic lymph nodes</td>
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<tr>
<td>200.13</td>
<td>Lymphosarcoma of intra-abdominal lymph nodes</td>
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<td>200.14</td>
<td>Lymphosarcoma of lymph nodes of axilla and upper limb</td>
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<td>200.15</td>
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<td>200.16</td>
<td>Lymphosarcoma of intrapelvic lymph nodes</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>200.17</td>
<td>Lymphosarcoma of spleen</td>
</tr>
<tr>
<td>200.18</td>
<td>Lymphosarcoma of lymph nodes of multiple sites</td>
</tr>
<tr>
<td>200.20</td>
<td>Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites</td>
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<tr>
<td>720.0</td>
<td>Ankylosing spondylitis</td>
</tr>
<tr>
<td>V42.0</td>
<td>Kidney replaced by transplant</td>
</tr>
<tr>
<td>V42.81</td>
<td>Bone marrow replaced by transplant</td>
</tr>
<tr>
<td>V42.82</td>
<td>Peripheral stem cells replaced by transplant</td>
</tr>
<tr>
<td>V42.83</td>
<td>Pancreas replaced by transplant</td>
</tr>
<tr>
<td>V42.84</td>
<td>Organ or tissue replaced by transplant, intestines</td>
</tr>
<tr>
<td>V42.89</td>
<td>Other organ or tissue replaced by transplant</td>
</tr>
<tr>
<td>V59.01</td>
<td>Whole blood donor</td>
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<tr>
<td>V59.02</td>
<td>Stem cell donor</td>
</tr>
<tr>
<td>V59.09</td>
<td>Blood donor, other</td>
</tr>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.1; 100-4,3,90.3.3; 100-4,4,231.11

CCI Version 20.0
Also not with 86813: 86812
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
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<th>Procedure Code</th>
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</table>

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**Explanation**

These tests may also be ordered as a Class II antigens test, or simply HLA-D antigens. These tests pertain primarily to matching potential donor tissues to transplant patients. The D human leukocyte antigens (HLA) are located separately from the Class I and Class III antigens on the chromosome. Subregion names DR, DQ, and DP are described. These tests determine HLA compatibility for multiple Class II antigens. Method involves mixing purified donor lymphocytes with the sera and complement. A culture is prepared and cytotoxic reaction (cell death) is monitored. Report 86816 for a single antigen; 86817 for multiple antigens.

**Coding Tips**

To report HLA typing by molecular pathology techniques, consult CPT codes 81370–81383. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

donor. Person from whom tissues or organs are removed for transplantation.
transplant. Insertion of an organ or tissue from one person or site into another.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>203.00</td>
<td>Multiple myeloma, without mention of having achieved remission</td>
</tr>
<tr>
<td>203.01</td>
<td>Multiple myeloma in remission</td>
</tr>
<tr>
<td>203.02</td>
<td>Multiple myeloma, in relapse</td>
</tr>
<tr>
<td>203.10</td>
<td>Plasma cell leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>203.11</td>
<td>Plasma cell leukemia in remission</td>
</tr>
<tr>
<td>203.12</td>
<td>Plasma cell leukemia, in relapse</td>
</tr>
<tr>
<td>203.80</td>
<td>Other immunoproliferative neoplasms, without mention of having achieved remission</td>
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<td>203.81</td>
<td>Other immunoproliferative neoplasms in remission</td>
</tr>
<tr>
<td>203.82</td>
<td>Other immunoproliferative neoplasms, in relapse</td>
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<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
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<tr>
<td>204.01</td>
<td>Acute lymphoid leukemia in remission</td>
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<td>204.02</td>
<td>Acute lymphoid leukemia, in relapse</td>
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<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
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<td>Chronic lymphoid leukemia in remission</td>
</tr>
<tr>
<td>204.12</td>
<td>Chronic lymphoid leukemia, in relapse</td>
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<tr>
<td>204.20</td>
<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
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<tr>
<td>204.21</td>
<td>Subacute lymphoid leukemia in remission</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.1

**CCI Version 20.0**

Also not with 86817: 86816

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86821-86822
86821  HLA typing; lymphocyte culture, mixed (MLC)
86822  lymphocyte culture, primed (PLC)

Explanation
These tests determine HLA compatibility of Class II antigens. Test 86821 may also be ordered as a mixed lymphocyte culture (MLC) reaction, Class II antigen test, or simply HLA-D antigen. This test pertains primarily to matching potential donor tissues to transplant patients. The D human leukocyte antigens (HLA) are located separately from the Class I and Class III antigens on the chromosome and the MLC method is particularly good at identifying them. The method is described in literature as mixing purified donor lymphocytes with the recipient's lymphocytes. A culture is prepared and the recipient's lymphocytic response is monitored. The greater the response, the greater the degree of antigen disparity. Test 86822 may also be ordered as a secondary mixed lymphocyte culture, a primed reaction Class II antigen test (PLC), or simply HLA-D primed. As in 86821, donor and recipient blood samples are often collected at the same time. The methodology for primed lymphocyte culture (PLC) is a rapid test and may take 24 to 36 hours to complete, rather than the seven to 10 days for an MLC (86821).

Coding Tips
To report HLA typing by molecular pathology techniques, consult CPT codes 81370–81383. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know

donor. Person from whom tissues or organs are removed for transplantation.

transplant. Insertion of an organ or tissue from one person or site into another.

ICD-9-CM Diagnostic Codes
099.3  Reiter's disease — (Use additional code for associated conditions: 372.33, 711.1)
200.00  Reticulosarcoma, unspecified site, extranodal and solid organ sites
200.10  Lymphosarcoma, unspecified site, extranodal and solid organ sites
200.21  Burkitt's tumor or lymphoma of lymph nodes of head, face, and neck
200.30  Marginal zone lymphoma, unspecified site, extranodal and solid organ sites
200.40  Mantle cell lymphoma, unspecified site, extranodal and solid organ sites
202.41  Leukemic reticuloendotheliosis of lymph nodes of head, face, and neck
202.42  Leukemic reticuloendotheliosis of intrathoracic lymph nodes
202.90  Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue, unspecified site, extranodal and solid organ sites
203.12  Plasma cell leukemia, in relapse
204.00  Acute lymphoid leukemia, without mention of having achieved remission
204.02  Acute lymphoid leukemia, in relapse
204.10  Chronic lymphoid leukemia, without mention of having achieved remission
204.12  Chronic lymphoid leukemia, in relapse
205.02  Acute myeloid leukemia, in relapse
205.10  Chronic myeloid leukemia, without mention of having achieved remission
205.12  Chronic myeloid leukemia, in relapse
205.30  Myeloid sarcoma, without mention of having achieved remission
205.32  Myeloid sarcoma, in relapse
205.80  Other myeloid leukemia, without mention of having achieved remission
205.81  Other myeloid leukemia in remission
206.90  Unspecified monocyte leukemia, without mention of having achieved remission
206.91  Unspecified monocytic leukemia in remission
208.80  Other leukemia of unspecified cell type, without mention of having achieved remission
208.81  Other leukemia of unspecified cell type in remission
582.4  Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis
585.4  Chronic kidney disease, Stage IV (severe) — (Use additional code to identify kidney transplant status, if applicable: V42.0. Use additional code to identify manifestation: 357.4, 420.0. Code first hypertensive chronic kidney disease, if applicable: 403.00-403.91, 404.00-404.93)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.1; 100-3,190.8

CCI Version 20.0
No CCI Edits apply to this code.
**86825-86826**

**86825** Human leukocyte antigen (HLA) crossmatch, non-cytotoxic (eg, using flow cytometry); first serum sample or dilution

**86826** each additional serum sample or sample dilution (List separately in addition to primary procedure)

**Explanation**

This test describes non-cytotoxic crossmatches, such as flow cytometry, and identifies a subgroup of potential organ transplant recipients whose risk of graft failure or post-transplant complications may be elevated because of low levels of an antibody that is undetected by lymphocytotoxic crossmatch procedures. When used as part of a pre-transplant risk assessment, cytotoxic and flow cytometry crossmatches provide differing, but complementary, information. Using three color fluorescent tests with CD3 and CD19 monoclonals and conjugated anti-human immunoglobulin, histocompatibility crossmatching is performed to optimize allocation of organs to the most compatible donor/recipient pairs. Report 86825 for the first serum sample or dilution and 86826 for each additional sample or dilution.

**Coding Tips**

As an add-on code, 86826 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. These codes should not be reported with codes 86355, 86359, and/or 88184-88489 for antibody surface markers integral to cross match testing.

**Terms To Know**

antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.

donor. Person from whom tissues or organs are removed for transplantation.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>202.41</td>
<td>Leukemic reticuloendotheliosis of lymph nodes of head, face, and neck</td>
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<td>202.46</td>
<td>Leukemic reticuloendotheliosis of intrapelvic lymph nodes</td>
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<tr>
<td>202.47</td>
<td>Leukemic reticuloendotheliosis of spleen</td>
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<td>202.48</td>
<td>Leukemic reticuloendotheliosis of lymph nodes of multiple sites</td>
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<td>Plasma cell leukemia, without mention of having achieved remission</td>
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<tr>
<td>203.12</td>
<td>Plasma cell leukemia, in relapse</td>
</tr>
<tr>
<td>204.00</td>
<td>Acute lymphoid leukemia, without mention of having achieved remission</td>
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<tr>
<td>204.01</td>
<td>Acute lymphoid leukemia in remission</td>
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<tr>
<td>204.02</td>
<td>Acute lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.11</td>
<td>Chronic lymphoid leukemia in remission</td>
</tr>
<tr>
<td>204.12</td>
<td>Chronic lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>204.20</td>
<td>Subacute lymphoid leukemia, without mention of having achieved remission</td>
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<tr>
<td>204.21</td>
<td>Subacute lymphoid leukemia in remission</td>
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<td>204.22</td>
<td>Subacute lymphoid leukemia, in relapse</td>
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<tr>
<td>204.80</td>
<td>Other lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.81</td>
<td>Other lymphoid leukemia in remission</td>
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<td>Acute myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.02</td>
<td>Acute myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>205.12</td>
<td>Chronic myeloid leukemia, in relapse</td>
</tr>
<tr>
<td>206.00</td>
<td>Acute monocytic leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>206.02</td>
<td>Acute monocytic leukemia, in relapse</td>
</tr>
<tr>
<td>206.10</td>
<td>Chronic monocytic leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>206.12</td>
<td>Chronic monocytic leukemia, in relapse</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

86355-86356, 86357, 86359-86367, 88184-88189

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
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© 2014 OptumInsight, Inc. CPT © 2014 American Medical Association. All Rights Reserved.
Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, flow cytometry); qualitative assessment of the presence or absence of antibody(ies) to HLA Class I and Class II HLA antigens

**Explanation**

These tests are commonly used to predict the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD) or transplanted organ rejection. Human leukocyte antigens (HLA) are a group of genes found on chromosome 6. There are two types of HLA: class I and class II. The higher number of anti-HLA antibodies the higher the chance of a reaction to donor tissue. The specimen is blood. The method is enzyme-linked immunosorbent assay (ELISA) technique and the use of fluorescent beads with HLA molecules bound to their surface, which can be used in conventional flow cytometry or in conjunction with Luminex instrumentation. Report 86828 if the presence or absence of both HLA class I and II antibodies are assessed. Report 86829 when only one HLA class antibody is qualified.

**Coding Tips**

If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **antibody.** Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- **assay.** Test of purity.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>279.50</td>
<td>Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89) (Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)</td>
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<tr>
<td>996.80</td>
<td>Complications of transplanted organ, unspecified site — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)</td>
</tr>
<tr>
<td>996.81</td>
<td>Complications of transplanted kidney — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)</td>
</tr>
<tr>
<td>996.82</td>
<td>Complications of transplanted liver — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

86807-86808, 88184-88189

Also not with 86828: 86829

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); antibody identification by qualitative panel using complete HLA phenotypes, HLA Class I

Antibody identification by qualitative panel using complete HLA phenotypes, HLA Class II

Explanation
These tests are commonly used to predict the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD) or transplanted organ rejection. Human leukocyte antigens (HLA) are a group of genes found on chromosome six. There are two types of HLA: class I and class II. The higher the number of anti-HLA antibodies the higher the chance of a reaction to donor tissue. The specimen is serum. The method is enzyme-linked immunosorbent assay (ELISA) technique and the use of fluorescent beads with HLA molecules bound to their surface, which can be used in conventional flow cytometry or in conjunction with LumineX instrumentation. Report 86830 for a panel of complete HLA class I phenotypes to identify antibodies to approximately 80 antigens using a 50 or more bead array. Report 86831 for a panel of complete HLA class II phenotypes to identify antibodies to approximately 40 antigens using a 30 or more bead array.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling and conveyance.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
assay. Test of purity.

ICD-9-CM Diagnostic Codes
279.50 Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)

996.80 Complications of transplanted organ, unspecified site — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

996.81 Complications of transplanted kidney — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

996.82 Complications of transplanted liver — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

996.83 Complications of transplanted heart — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
86807-86808, 86828-86829, 88184-88189
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); high definition qualitative panel for identification of antibody specificities (eg, individual antigen per bead methodology), HLA Class I qualitative panel for identification of antibody specificities (eg, individual antigen per bead methodology), HLA Class II

Explanation
These tests are commonly used to predict the histocompatibility between a patient and a donor to predict and prevent graft versus host disease (GVHD) or transplanted organ rejection. Human leukocyte antigens (HLA) are a group of genes found on chromosome six. There are two types of HLA: class I and class II. The higher the number of anti-HLA antibodies the higher the chance of a reaction to donor tissue. The specimen is blood. Antibodies to individual HLA antigens are identified using fluorescence bead-based assays. These assays utilize color-coded beads coated with cloned HLA to identify complement-binding and non-complement-binding HLA class I and II antibodies. Report 86832 to qualify HLA class I with a panel to identify antibodies to all 80+ HLA ABC antigens using a bead array of up to 98 beads. Report 86833 when HLA class II is qualified using a panel to identify antibodies to individual HLA DRB1/3/4/5, DQA1, DQB1, DPA1, and DPB1 antigens using a bead array of up to 98 beads.

Coding Tips
Report these codes once for each panel using untreated and treated serum when solid phase testing is performed after treatment. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes
279.50 Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91)
996.80 Complications of transplanted organ, unspecified site — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.81 Complications of transplanted kidney — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.82 Complications of transplanted liver — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)
996.83 Complications of transplanted heart — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
86807-86808, 88184-88189
Also not with 86832: 86828-86830
Also not with 86833: 86828-86829, 86831
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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<th>Malpractice</th>
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</tr>
</tbody>
</table>

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Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); semi-quantitative panel (eg, titer), HLA Class I

| Explanation |
| These tests are commonly used to monitor treatment of antibody mediated transplant rejection, assess potential rejection in potential transplant patients, or test for pretransplant desensitization potential. Human leukocyte antigens (HLA) are a group of genes found on chromosome six. There are two types of HLA: class I and class II. The higher the number of anti-HLA antibodies the higher the chance of a reaction to donor tissue. The specimen is blood. The method is enzyme-linked immunosorbent assay (ELISA) technique and the use of fluorescent beads with HLA molecules bound to their surface, which can be used in conventional flow cytometry or in conjunction with Luminex instrumentation. Report 86834 if the panel is to quantify HLA class I antibodies. Report 86835 when HLA class II antibodies are quantified.

| Coding Tips |
| Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

| ICD-9-CM Diagnostic Codes |
| 279.50 | Graft-versus-host disease, unspecified — (Code first underlying cause: 996.80-996.89, 999.89)(Use additional code to identify any associated intellectual disabilities) (Use additional code to identify associated manifestations: 695.89, 704.09, 782.4, 787.91) |
| 996.80 | Complications of transplanted organ, unspecified site — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53) |
| 996.81 | Complications of transplanted kidney — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53) |
| 996.82 | Complications of transplanted liver — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53) |
| 996.83 | Complications of transplanted heart — (Use additional code to identify nature of complication: 078.5, 199.2, 238.77, 279.50-279.53) |

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

| CCI Version 20.0 |
| Also not with 86834: 86807-86808, 88184-88189 |
| Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above. |
Antibody identification, RBC antibodies, each panel for each serum technique

Explanation
This test is also known as an antibody panel. Blood specimen is whole blood. The test identifies an antibody isolated by techniques reported by 86850 and/or 86860. The test may be performed using tubes, microtiter plates, or gel cards. This code can be reported up to four times during the same session for differences in technique necessary for identification (i.e., regular panel, cold-panel, pre-warmed panel, and enzyme treated panel).

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes
200.00 Reticulosarcoma, unspecified site, extranodal and solid organ sites
200.01 Reticulosarcoma of lymph nodes of head, face, and neck
200.02 Reticulosarcoma of intrathoracic lymph nodes
200.03 Reticulosarcoma of intra-abdominal lymph nodes
200.04 Reticulosarcoma of lymph nodes of axilla and upper limb
200.05 Reticulosarcoma of lymph nodes of inguinal region and lower limb
200.06 Reticulosarcoma of intrapelvic lymph nodes
200.07 Reticulosarcoma of spleen
200.08 Reticulosarcoma of lymph nodes of multiple sites
200.10 Lymphosarcoma, unspecified site, extranodal and solid organ sites
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
204.11 Chronic lymphoid leukemia in remission
204.12 Chronic lymphoid leukemia, in relapse
282.0 Hereditary spherocytosis
282.1 Hereditary elliptocytosis
282.2 Anemias due to disorders of glutathione metabolism
282.3 Other hemolytic anemias due to enzyme deficiency
282.41 Sickle-cell thalassemia without crisis
282.42 Sickle-cell thalassemia with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.49 Other thalassemia
282.5 Sickle-cell trait
282.60 Sickle-cell disease, unspecified
282.61 Hb-SS disease without crisis
282.62 Hb-SS disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.63 Sickle-cell/Hb-C disease without crisis
282.64 Sickle-cell/Hb-C disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.68 Other sickle-cell disease without crisis
282.69 Other sickle-cell disease with crisis — (Use additional code for type of crisis: 289.52, 517.3)
282.7 Other hemoglobinopathies
282.8 Other specified hereditary hemolytic anemias
282.9 Unspecified hereditary hemolytic anemia
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
283.10 Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)
283.11 Hemolytic-uremic syndrome — (Use additional E code to identify cause) (Use additional code to identify associated: 004.0, 041.41-041.49, 481)
283.19 Other non-autoimmune hemolytic anemias — (Use additional E code to identify cause)
283.2 Hemoglobinuria due to hemolysis from external causes — (Use additional E code to identify cause)
283.9 Acquired hemolytic anemia, unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Antihuman globulin test (Coombs test); direct, each antiserum

**Explanation**
This test is also known as a direct Coombs or sometimes as a direct antiglobulin test (DAT). Blood specimen is whole blood. The test is used to detect coating of the RBCs by antibody or complement. It is useful in diagnosis of hemolytic disease of the newborn (HDN), detection of autoimmune hemolytic anemia, investigation of transfusion reactions, and detection of red cell sensitization reactions caused by medication. Method may be by gel test, flow cytometry, or enzyme-linked immunosorbent assay (ELISA) or hemagglutination.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **specimen**: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
- **transfusion recipient syndrome**: Polycythemia of newborn as result of blood flow from mother. Report this disorder with ICD-9-CM code 776.4.

**ICD-9-CM Diagnostic Codes**

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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
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<td>075</td>
<td>Infectious mononucleosis</td>
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<tr>
<td>202.00</td>
<td>Nodular lymphoma, unspecified site, extranodal and solid organ sites</td>
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<tr>
<td>202.01</td>
<td>Nodular lymphoma of lymph nodes of head, face, and neck</td>
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<tr>
<td>202.02</td>
<td>Nodular lymphoma of intrathoracic lymph nodes</td>
</tr>
<tr>
<td>202.03</td>
<td>Nodular lymphoma of intra-abdominal lymph nodes</td>
</tr>
<tr>
<td>202.04</td>
<td>Nodular lymphoma of lymph nodes of axilla and upper limb</td>
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<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
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<tr>
<td>204.11</td>
<td>Chronic lymphoid leukemia in remission</td>
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<tr>
<td>204.12</td>
<td>Chronic lymphoid leukemia, in relapse</td>
</tr>
<tr>
<td>283.0</td>
<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
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<tr>
<td>773.0</td>
<td>Hemolytic disease due to Rh isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)</td>
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<td>773.1</td>
<td>Hemolytic disease due to ABO isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)</td>
</tr>
<tr>
<td>773.2</td>
<td>Hemolytic disease due to other and unspecified isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)</td>
</tr>
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<td>999.60</td>
<td>ABO incompatibility reaction, unspecified</td>
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<td>999.61</td>
<td>ABO incompatibility with hemolytic transfusion reaction not specified as acute or delayed</td>
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<td>Acute hemolytic transfusion reaction, incompatibility unspecified</td>
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<td>999.85</td>
<td>Delayed hemolytic transfusion reaction, incompatibility unspecified</td>
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<tr>
<td>999.89</td>
<td>Other transfusion reaction — (Use additional code to identify graft-versus-host reaction: 279.5)</td>
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</tbody>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
Antihuman globulin test (Coombs test); indirect, qualitative, each reagent red cell

Explanation
This test is also known as an indirect Coombs, IAT, or sometimes as selective antibody screen. The indirect antiglobulin test indicates whether there is antibody in the serum, which will react to combine with antigen on the red cell. Uses for the IAT include determining if there are IgG antibodies (coating antibodies) in the patient’s serum; investigating the ability to sensitize red blood cells; crossmatching, detection of Du (weak D) antigen; and investigation of transfusion reactions. The specimen is whole blood. Methodology includes agglutination, hemolysis of Type 0 test cells, flow cytometry, or enzyme-linked immunosorbent assay (ELISA). Report this code for each reagent red cell.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
transfusion recipient syndrome. Polycythemia of newborn as result of blood flow from mother. Report this disorder with ICD-9-CM code 776.4.

ICD-9-CM Diagnostic Codes
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
204.11 Chronic lymphoid leukemia in remission
204.12 Chronic lymphoid leukemia, in relapse
283.0 Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)
773.0 Hemolytic disease due to Rh immunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.1 Hemolytic disease due to ABO isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.2 Hemolytic disease due to other and unspecified isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
999.60 ABO incompatibility reaction, unspecified
999.61 ABO incompatibility with hemolytic transfusion reaction not specified as acute or delayed
999.62 ABO incompatibility with acute hemolytic transfusion reaction
999.63 ABO incompatibility with delayed hemolytic transfusion reaction
999.69 Other ABO incompatibility reaction
999.70 Rh incompatibility reaction, unspecified
999.71 Rh incompatibility with hemolytic transfusion reaction not specified as acute or delayed
999.72 Rh incompatibility with acute hemolytic transfusion reaction
999.73 Rh incompatibility with delayed hemolytic transfusion reaction
999.74 Other Rh incompatibility reaction
999.75 Non-ABO incompatibility reaction, unspecified
999.76 Non-ABO incompatibility with hemolytic transfusion reaction not specified as acute or delayed
999.77 Non-ABO incompatibility with acute hemolytic transfusion reaction
999.78 Non-ABO incompatibility with delayed hemolytic transfusion reaction
999.79 Other non-ABO incompatibility reaction
999.80 Transfusion reaction, unspecified
999.83 Hemolytic transfusion reaction, incompatibility unspecified
999.84 Acute hemolytic transfusion reaction, incompatibility unspecified
999.85 Delayed hemolytic transfusion reaction, incompatibility unspecified
999.89 Other transfusion reaction — (Use additional code to identify graft-versus-host reaction: 279.5)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
86850
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Antihuman globulin test (Coombs test); indirect, each antibody titer

Explanation
This test is also known as an antibody titer. The test determines the strength of antibody identified through test described in 86870. The specimen is whole blood. Method is serial dilution with saline, enzyme, or low ionic strength saline followed by antiglobulin. Report this code for each antibody titer.

Coding Tips
See code 86850 to report antibody screening Coombs test. See code 86870 to report Coombs test using reagent red cell panels.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>204.10</td>
<td>Chronic lymphoid leukemia, without mention of having achieved remission</td>
</tr>
<tr>
<td>204.11</td>
<td>Chronic lymphoid leukemia in remission</td>
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<td>Chronic lymphoid leukemia, in relapse</td>
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<td>Glucocorticoid deficiency</td>
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<td>Other hemolytic anemias due to enzyme deficiency</td>
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<td>Thalassemia, unspecified</td>
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<td>Sickle-cell trait</td>
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<td>Hb-SS disease without crisis</td>
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<td>Sickle-cell/Hb-C disease without crisis</td>
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<td>Other sickle-cell disease without crisis</td>
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<td>282.8</td>
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<td>282.9</td>
<td>Unspecified hereditary hemolytic anemia</td>
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<td>Autoimmune hemolytic anemias — (Use additional E code to identify cause, if drug-induced)</td>
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<td>Unspecified non-autoimmune hemolytic anemia — (Use additional E code to identify cause)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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86890

86890  Autologous blood or component, collection processing and storage; predeposited

Explanation
This reports the donation of blood for one's own use. This procedure is used for patients requiring surgery who pre-deposit their own blood for use during the surgery. The procedure is most useful for patients with complex antibody production or extremely rare antibodies that make location of compatible blood difficult.

Coding Tips
This code may be reported only for autologous units that are not transfused. Medicare does not allow the separate billing of the autologous collection and processing when the autologous unit is transfused and reported with a HCPCS blood product code. Payment for the blood product includes payment for processing, collection, and storage. See the Medicare Claims Processing Manual, Pub. 100-04, Transmittal 496, March 4, 2005. Likewise, code V59.0X should be assigned for donations to other individuals, not for self-donation.

Terms To Know
antibody. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
autologous. Tissue or structure derived from the same individual.
transfusion. Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-3,110.7; 100-3,110.8

CCI Version 20.0
36000, 36410, 80500-80502, 99195
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
86891

**86891**  
Autologous blood or component, collection processing and storage; intra- or postoperative salvage

**Explanation**

This procedure may also be known as a cell-saver. This is a device used in surgeries where large blood losses are inherent to the procedure (i.e., total hip, certain heart and lung procedures, liver and spleen operations). The device aspirates spilled blood in the surgical cavity, washes it, and returns the RBCs to the patient. This reduces the need for stored blood. In postoperative patients, there may be major seepage and the patient is not physically up to additional surgery to correct the problem. The cell-saver washes the seepage and transfuses it back to the patient.

**Coding Tips**

Medicare does not allow the separate billing of the autologous collection and processing when the autologous unit is transfused and reported with a HCPCS blood product code. Payment for the blood product includes payment for the processing, collection, and storage. See the *Medicare Claims Processing Manual*, Pub. 100-04, section 231.3. This code may be reported only for autologous units that are not transfused.

**Terms To Know**

- **autologous.** Tissue or structure derived from the same individual.
- **donor.** Person from whom tissues or organs are removed for transplantation.
- **RBC.** Red blood cell.
- **transfusion.** Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**IOM References**

100-3,110.7; 100-3,110.8

**CCI Version 20.0**

36000, 36410, 80500-80502, 99195

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
**86900**

*Explanation*
This test may also be known as blood group. The test determines whether a patient is O, A, B, or AB by testing for the presence or absence of these antigens on the RBC surface. This typing of blood is the oldest and most widely recognized. Blood specimen is whole blood. The classic test method is by agglutination but gel testing is common.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **ABO**: ABO incompatibility, an immune system reaction that occurs if two different and incompatible blood types are combined. Blood is typed as A, AB, B, and O groups. This is determined by certain molecules on the surface of blood cells, which function as antigens, or immune system triggers. Type O lacks any molecule. Each person has a combination of two surface molecules, resulting in blood type A (AA or AO), type B (BB or BO), type AB, or type O. In order to avoid an ABO incompatibility reaction, blood types must be matched when patients receive blood transfusions or organ transplants. Since type O lacks surface molecules, it can be given to patients with any blood type. However, patients with type O blood can receive only type O.
- **RBC**: Red blood cell.
- **venipuncture**: Piercing a vein through the skin by a needle and syringe or sharp-ended cannula or catheter to draw blood, start an intravenous infusion, instill medication, or inject another substance such as radiopaque dye.

**ICD-9-CM Diagnostic Codes**

<table>
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<tr>
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<td>ABO incompatibility reaction, unspecified</td>
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<td>999.61</td>
<td>ABO incompatibility with hemolytic transfusion reaction not specified as acute or delayed</td>
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<tr>
<td>999.62</td>
<td>ABO incompatibility with acute hemolytic transfusion reaction</td>
</tr>
<tr>
<td>999.63</td>
<td>ABO incompatibility with delayed hemolytic transfusion reaction</td>
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<tr>
<td>999.69</td>
<td>Other ABO incompatibility reaction</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

<table>
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</table>

CCI Version 20.0
No CCI Edits apply to this code.
86901

86901  Blood typing, Rh (D)

**Explanation**

This test is known as Rh type. The test determines whether a patient is "positive" or "negative" by identifying the presence (Rh positive) or absence (Rh negative) of Rh antigens on the RBC surface. Blood specimen is whole blood. Method is enzyme-linked immunosorbent assay (ELISA), but may be performed by agglutination or gel test.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **agglutination.** Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.
- **Rh neg.** Rhesus factor negative.
- **transfusion.** Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**

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<td>999.79</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
**86911-86920**

**86910** Blood typing, for paternity testing, per individual; ABO, Rh and MN

**86911** each additional antigen system

**Explanation**

These tests are a method to determine percentages of whether a particular male is the biological father of a particular child. These codes essentially group elements of 86900, 86901, and 86905 (MN refers to M antigen and N antigen, important in phenotyping). Code 86911 is reported when calculations using the antigen system in 86910 are indeterminate and additional systems must be analyzed. These codes also report all mathematical calculations of probability. These tests result in only a statistical probability of paternity. 86920 This test is one of the crossmatch components of tests ordered as "type and crossmatch." This step checks mainly for ABO compatibility of the unit being transfused. It may be the only step in the compatibility phase of the crossmatch when the patient has no demonstrated antibodies, or after a massive transfusion where very little of the patient's blood volume is his/her own. DNA testing is more commonly done.

**Coding Tips**

These codes are not recognized by Medicare. If mandated by a third-party (court mandated, third-party payer) append modifier 32 to the procedure code. To report blood typing for Rh see 86901; blood typing for ABO 86900.

**Terms To Know**

- **Antigen.** Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **DNA.** Deoxyribonucleic acid.

**ICD-9-CM Diagnostic Codes**

V70.4 Examination for medicolegal reason — (Use additional code(s) to identify any special screening examination(s) performed: V73.0-V82.9)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
**86920-86922**

**86920**  
Compatibility test each unit; immediate spin technique

**86921**  
incubation technique

**86922**  
antiglobulin technique

**Explanation**  
Each of these tests are a component of tests ordered as "type and crossmatch." Code 86920 checks mainly for ABO compatibility of the unit being transfused. It may be the only step in the compatibility phase of the crossmatch when the patient has no demonstrated antibodies, or after a massive transfusion where very little of the patient's blood volume is his/her own. Code 86921 is an intermediate step using incubation technique, in a full major compatibility test (86920, 86921, and 86922). It is a crucial step in sensitization of IgG antigens. The final step in a major crossmatch is represented by code 86922. A full, major crossmatch will always be performed when antibodies are present in the patient's serum, unless more than 10 units have been given in a 24-hour period.

**Coding Tips**  
Each phase of the compatibility test may be separately reported (e.g., the immediate spin, the incubation, and the antiglobulin technique). A gel cross match should be reported with CPT code 86920, the antiglobulin technique code. Assign CPT code 86923 for an electronic cross-match. In the instance of a same unit cross match, 86923 should not be used with 86920–86922.

**Terms To Know**  
**transfusion.** Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

**ICD-9-CM Diagnostic Codes**

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<td>ABO incompatibility with hemolytic transfusion reaction not specified as acute or delayed</td>
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</table>

**CCI Version 20.0**

86923

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
86923
86923  Compatibility test each unit; electronic

Explanation
This “computer check” is referred to as an electronic crossmatch, computer-assisted crossmatch, or E-XM. Some labs match donor blood for transfusions to specific patients based on patient test results previously performed and stored in the blood bank computer system. The sole purpose of the electronic crossmatch is to confirm ABO compatibility between patient and donor.

Coding Tips
Do not use 86923 in conjunction with 86920-86922 for same-unit cross-match.

Terms To Know
ABO. ABO Incompatibility, an immune system reaction that occurs if two different and incompatible blood types are combined. Blood is typed as A, AB, B, and O groups. This is determined by certain molecules on the surface of blood cells, which function as antigens, or immune system triggers. Type O lacks any molecule. Each person has a combination of two surface molecules, resulting in blood type A (AA or AO), type B (BB or BO), type AB, or type O. In order to avoid an ABO incompatibility reaction, blood types must be matched when patients receive blood transfusions or organ transplants. Since type O lacks surface molecules, it can be given to patients with any blood type. However, patients with type O blood can receive only type O.

laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

Rh. Rhesus.

transfusion. Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

ICD-9-CM Diagnostic Codes

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
86927

**Explanation**
Fresh frozen plasma (FFP) is frozen within six hours of donation. It maintains clotting factors in the frozen state and for this reason is used to treat certain clotting disorders, such as over-medication with Coumadin, liver diseases (i.e., parenchymal liver disease), and disseminated intravascular coagulation (DIC). It may also be used for plasma exchanges to treat diseases like thrombotic thrombocytopenic purpura (TTP), Raynaud's disease, and glomerulonephritis. This code reports only the thawing process.

**Coding Tips**
This code may be assigned for Medicare billing only if a specific HCPCS code for the frozen and thawed blood or blood product does not exist. See the Medicare Claims Processing Manual, Pub. 100-04, Section 231.6.

**Terms To Know**
- **coagulation**: Clot formation.
- **Raynaud's syndrome**: Constriction of the arteries of the digits caused by cold or emotion. Temperature drops in extremities as much as 30 degrees Fahrenheit, and skin turns white with red and blue mottling. Caused by nerve or arterial damage and can be prompted by stress. Report this disorder with ICD-9-CM code 443.0. **Synonym(s)**: Patriots disease.
- **thrombotic thrombocytopenic purpura**: Thrombocytopenia with thrombi formation in the small arterioles and capillaries causing hemolytic anemia, purpura, azotemia, fever, and central nervous system disorders manifested by bizarre neurological effects. Report this condition with ICD-9-CM code 446.6. **Synonym(s)**: Baehr-Schiffrin disease, microangiopathic hemolytic anemia, Moschowitz disease, thrombotic microangiopathy.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
No CCI Edits apply to this code.
**86930-86932**

86930  Frozen blood, each unit; freezing (includes preparation)
86931  thawing
86932  freezing (includes preparation) and thawing

**Explanation**
The preparation for freezing is also known as glycerolization. Freezing allows reasonably long-term storage of pre-deposited blood. The preparation of frozen blood with thawing is also known as deglycerolization. The product is thawed and washed to remove preservative. Certain cold-insoluble proteins, such as factor VIII and fibrinogen, may be removed when the blood is close to thawing. Report 86930 for freezing, including preparation, each unit of blood. Report 86931 for thawing, each unit of blood and 86932 for freezing (including preparation) and thawing, each unit of blood.

**Coding Tips**
These codes may be assigned for Medicare billing only if a specific HCPCS code for the frozen and thawed blood or blood product does not exist. See the Medicare Claims Processing Manual, Pub. 100-04, section 231.6.

**Terms To Know**

**factor VIII.** Hereditary, sex-linked condition with missing antihemophilic globulin (AHG) (factor VIII). This condition causes abnormal coagulation characterized by increased bleeding; large bruises on the skin; bleeding in the mouth, nose, or gastrointestinal tract and hemorrhages into joints, resulting in swelling and impaired function. Report factor VIII disorders with ICD-9-CM code 286.0. Factor VIII deficiencies with vascular defect are reported with ICD-9-CM code 286.4. **Synonym(s):** Helixate, Kogenate.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
Also not with 86931: 86930
Also not with 86932: 86930-86931, 88240-88241
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**86940-86941**

86940 Hemolysins and agglutinins; auto, screen, each incubated

86941

**Explanation**

These tests are used for screening (86940) or incubation (86941) of hemolysins and cold agglutinins. Cold agglutinins may mask antibodies that are not expected to be present in the blood and hemolysins are substances that lyse or dissolve red blood cells. In these tests red cells subject to incubation with and without various additives, such as glucose to determine the degree that red blood cells will lyse or clump. Irradiation is used primarily to prevent graft versus host disease (GVHD) in certain immunosuppressed patients, newborns, and patients that share the same human lymphocyte antigen (HLA) haplotype as the donor. The process inactivates the lymphocytes. Irradiation is also required when the donor is a blood relation of the recipient (GVHD).

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **antigen.** Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **graft-versus-host disease.** Acute or chronic complication of blood transfusion, bone marrow transplant, or any organ transplant in which white blood cells are present in the transplanted organ. Acute cases may result in skin disruption, diarrhea, hyperbilirubinemia, and an increase in susceptibility to infection. Chronic cases typically begin more than three months post-transplant. In addition to the symptoms noted above, dry eyes and mouth, loss of hair, and lung disorders may be present. Report this condition with an ICD-9-CM code from subcategory 279.5 or an ICD-10-CM code from category D89.81.

**Synonym(s):** GVHR.

- **measles.** Highly contagious, acute airborne viral disease manifested by fever, small red spots, and flu-like symptoms. Measles is primarily a disease of childhood and is generally reported with a code from ICD-9-CM rubric 055.

**Synonym(s):** rubeola.

- **syphilis.** Sexually transmitted disease caused by the treponema pallidum spirochete. Syphilis usually exhibits cutaneous manifestations and may exist for years without symptoms. Newborns may contract it via the placenta.

**ICD-9-CM Diagnostic Codes**

042 Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Irradiation of blood product, each unit

Explaination
Irradiation is used primarily to prevent graft versus host disease (GVHD) in certain immunosuppressed patients, newborns, and patients that share the same human lymphocyte antigen (HLA) haplotype as the donor. The process inactivates the lymphocytes. Irradiation is also required when the donor is a blood relation of the recipient (GVHD).

Coding Tips
Irradiation of a blood product per unit irradiated is separately billable only if a specific HCPCS code for the irradiated product does not exist. See Medicare Claims Processing Manual, Pub. 100-04, section 231.5.

Terms To Know
antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.
donor. Person from whom tissues or organs are removed for transplantation.
graft-versus-host disease. Acute or chronic complication of blood transfusion, bone marrow transplant, or any organ transplant in which white blood cells are present in the transplanted organ. Acute cases may result in skin disruption, diarrhea, hyperbilirubinemia, and an increase in susceptibility to infection. Chronic cases typically begin more than three months post-transplant. In addition to the symptoms noted above, dry eyes and mouth, loss of hair, and lung disorders may be present. Report this condition with an ICD-9-CM code from subcategory 279.5 or an ICD-10-CM code from category D89.81-. Synonym(s): GVH.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
No CCI Edits apply to this code.
Volume reduction of blood or blood product (e.g., red blood cells or platelets), each unit

**Explanation**
Volume reduction of blood is usually performed by an extra centrifugation step that removes plasma during processing of a blood product. Removal of excess donor plasma is indicated in patients who cannot tolerate the full volume or when ABO incompatible single donor platelets are transfused. Volume reduction may be helpful in patients with febrile transfusion reactions that persist despite leukocyte reduction.

**Coding Tips**
Report volume reduction per each unit reduced.

**Terms To Know**
- **ABO**: ABO incompatibility, an immune system reaction that occurs if two different and incompatible blood types are combined. Blood is typed as A, AB, B, and O groups. This is determined by certain molecules on the surface of blood cells, which function as antigens, or immune system triggers. Type O lacks any molecule. Each person has a combination of two surface molecules, resulting in blood type A (AA or AO), type B (BB or BO), type AB, or type O. In order to avoid an ABO incompatibility reaction, blood types must be matched when patients receive blood transfusions or organ transplants. Since type O lacks surface molecules, it can be given to patients with any blood type. However, patients with type O blood can receive only type O.
- **Laboratory**: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
- **Plasma**: Liquid portion of the blood, lymph, or milk.
- **Platelet**: Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. *Synonym(s):* thrombocyte.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
No CCI Edits apply to this code.

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86965

86965  Pooling of platelets or other blood products

Explanation
Pooling in this sense means to blend blood product from a variety of sources. Platelets and cryoprecipitate units are pooled in order to provide an adequate amount of product for the transfusion to be therapeutic. Cryoprecipitate is the fraction of blood which contains cold-insoluble proteins, such as factor VIII and fibrinogen. Cryoprecipitate is collected from frozen blood that is brought to thawing temperature.

Coding Tips
To report the injection(s) of platelet rich plasma, see 0232T. See also HCPCS Level II code P9044. This code may be assigned for Medicare billing only if a specific HCPCS code for the frozen and thawed blood or blood product does not exist. See the Medicare Claims Processing Manual, Pub. 100-04, section 231.6.

Terms To Know
factor VIII. Hereditary, sex-linked condition with missing antihemophilic globulin (AHG) (factor VIII). This condition causes abnormal coagulation characterized by increased bleeding; large bruises on the skin; bleeding in the mouth, nose, or gastrointestinal tract and hemorrhages into joints, resulting in swelling and impaired function. Report factor VIII disorders with ICD-9-CM code 286.0. Factor VIII deficiencies with vascular defect are reported with ICD-9-CM code 286.4. Synonym(s): Helixate, Kogenate.
platelet. Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. Synonym(s): thrombocyte.
transfusion. Process of transferring whole blood or blood components from one person, the donor, to another person, the recipient, or the process of taking liquid from one vessel and putting it into another.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-3,110.8

CCI Version 20.0
No CCI Edits apply to this code.
Pretreatment of RBCs for use in RBC antibody detection, identification, and/or compatibility testing; incubation with chemical agents or drugs, each

- 86970
- 86971
- 86972

**Explanation**

These codes describe the pretreatment of RBCs for use in RBC antibody detection. Code 86970 describes the incubation of red blood cells with certain chemical agents or drugs performed to enhance the agglutination reaction of red blood cells during antibody identification. IgM antibodies are easily detected in saline at room temperature as IgM antibodies are able to bridge between RBCs owing to their large size, efficiently creating what is seen as agglutination. IgG antibodies are smaller and require assistance to bridge well enough to form a visual agglutination reaction. In code 86971, the enzyme pretreatment of red blood cells is undertaken when there are multiple antibodies or one that is too weak to demonstrate without pre-treatment of the reagent RBCs. The enzyme used depends on the suspected antibody. Certain enzymes enhance particular antibodies while destroying others. In some red cell typing and antibody detection procedures it is desirable to exclude other cellular components of whole blood, such as white blood cells or platelets. Isolation of RBCs from whole blood may be accomplished by centrifugation in a density gradient. This is reported with code 86972.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- agglutination. Clumping together of cells due to the binding of agglutinin (a protein) molecules on the surface of each cell. The clumping together of two organisms of the same species for the purpose of sexual reproduction. Often conducted by means of a carbohydrate on one organism and a protein on the other, resulting in a glycoprotein.
- antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
- enzyme. Complex proteins produced by cells that provide specific chemical functions within the body.
- platelet. Disk-shaped structure found in the blood. Platelets are important for normal blood coagulation. **Synonym(s): thrombocyte.**
- RBC. Red blood cell.

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87001-87003

87001  Animal inoculation, small animal; with observation
87003  with observation and dissection

Explanation
Animal inoculation with infected tissue, blood, or other specimen source is used in the diagnosis of several diseases, including rabies, Colorado tick fever, and infantile botulism. There are different specimen types for the different tests. Contact the reference lab that is performing the test for type of specimen and transport. Code 87003 is used to observe signs of illness in inoculated mice for as long as three weeks and for the dissection of mice and preparation of tissue for microscopy to confirm diagnosis when mice become ill or die. There are, however, more rapid tests to diagnose these diseases. Code 87001 is reported for observation only while 87003 indicates observation and dissection.

Coding Tips
If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
dissect. Cut apart or separate tissue for surgical purposes or for visual or microscopic study.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
040.41  Infant botulism
066.1   Tick-borne fever — (Use additional code to identify any associated meningitis: 321.2)
071     Rabies

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
88387-88388
Also not with 87003: 87001
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Concentration (any type), for infectious agents

Explanation
Concentration may also be referred to as thick smear preparation. The source samples are treated to concentrate the presence of suspect organisms, usually through sedimentation or flotation. There are two common methods of concentration for ova and parasite exams: formalin concentration and zinc sulfate flotation. The most common concentration methods for AFB stains or cultures are the N-acetyl-L-cysteine method, cytocentrifugation, and the Zephiran-trisodium phosphate method.

Coding Tips
Do not report code 87015 in conjunction with code 87177.

Terms To Know
hemoptysis. Coughing up or spitting out blood or blood-streaked sputum, reported with ICD-9-CM codes 786.30-786.39 or ICD-10-CM codes R04.2, R04.89, or R04.9.

smear. Specimen for study that is spread out across a glass slide.

ICD-9-CM Diagnostic Codes
009.3 Diarrhea of presumed infectious origin
010.00 Primary tuberculous complex, confirmation unspecified
010.01 Primary tuberculous complex, bacteriological or histological examination not done
010.02 Primary tuberculous complex, bacteriological or histological examination unknown (at present)
010.03 Primary tuberculous complex, tubercle bacilli found (in sputum) by microscopy
010.04 Primary tuberculous complex, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
010.05 Primary tuberculous complex, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
010.06 Primary tuberculous complex, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]
010.10 Tuberculous pleurisy in primary progressive tuberculosis, confirmation unspecified
010.11 Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination not done
010.12 Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination results unknown (at present)
010.13 Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli found (in sputum) by microscopy
010.14 Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found (in sputum) by microscopy, but found by bacteriological examination
010.15 Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
010.16 Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]
010.80 Other primary progressive tuberculosis infection, confirmation unspecified
010.81 Other primary progressive tuberculosis infection, bacteriological or histological examination not done
010.82 Other primary progressive tuberculosis infection, bacteriological or histological examination not done (at present)
010.83 Other primary progressive tuberculosis infection, tubercle bacilli found (in sputum) by microscopy
010.84 Other primary progressive tuberculosis infection, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
010.85 Other primary progressive tuberculosis infection, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
010.86 Other primary progressive tuberculosis infection, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]
011.00 Tuberculosis of lung, infiltrative, confirmation unspecified — (Use additional code to identify any associated silicosis, 502)
011.01 Tuberculosis of lung, infiltrative, bacteriological or histological examination not done — (Use additional code to identify any associated silicosis, 502)
031.0 Pulmonary diseases due to other mycobacteria
031.1 Cutaneous diseases due to other mycobacteria
031.2 Disseminated diseases due to other mycobacteria
786.31 Acute idiopathic pulmonary hemorrhage in infants [AIPH]
786.4 Abnormal sputum
787.91 Diarrhea

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Culture, bacterial; blood, aerobic, with isolation and presumptive identification of isolates (includes anaerobic culture, if appropriate)

**Explanation**
Samples for bacterial blood culture are drawn by venipuncture and usually consist of a set of bottles, an aerobic and an anaerobic bottle. Drawing at least two sets of cultures increases the effectiveness of the test. This code includes anaerobic culture along with aerobic, if appropriate. Presumptive identification of aerobic pathogens or microorganisms in the blood sample is by means of identifying colony morphology. The test includes gram staining and subculturing to selective media for the detection of bacterial growth. There are several automated systems that detect the presence of bacteria using colorimetric, radiometric, or spectrophotometric means. The purpose of blood culture tests is to detect the presence of aerobic and anaerobic bacteria in blood and to identify the bacteria, but not to the specific level of genus or species requiring additional testing, such as slide cultures.

**Coding Tips**
According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. To report aerobic stool culture, see codes 87045-87046. To report urine culture, presumptive identification, see code 87088.

**Terms To Know**
aerobic. Atmospheric or dissolved oxygen is available.
culture. Growth of microorganisms in a medium conducive to their development.

**ICD-9-CM Diagnostic Codes**
- 002.1 Paratyphoid fever A
- 002.2 Paratyphoid fever B
- 002.3 Paratyphoid fever C
- 005.0 Staphylococcal food poisoning
- 005.1 Botulism food poisoning
- 005.89 Other bacterial food poisoning
- 008.45 Intestinal infections due to clostridium difficile
- 008.46 Intestinal infections due to other anaerobes
- 037 Tetanus
- 038.0 Streptococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.11 Methicillin susceptible Staphylococcus aureus septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.12 Methicillin resistant Staphylococcus aureus septicemia
- 038.2 Pneumococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.3 Septicemia due to anaerobes — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.40 Septicemia due to unspecified gram-negative organism — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.41 Septicemia due to hemophilus influenzae (H. influenzae) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.42 Septicemia due to Escherichia coli (E. coli) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 038.43 Septicemia due to pseudomonas — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
- 041.11 Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
- 041.12 Methicillin resistant Staphylococcus aureus
- 482.81 Pneumonia due to anaerobes
- 523.30 Aggressive periodontitis, unspecified
- 523.40 Chronic periodontitis, unspecified
- 958.3 Posttraumatic wound infection not elsewhere classified
- 995.91 Sepsis — (Code first underlying infection)
- 995.92 Severe sepsis — (Code first underlying infection. Use additional code to specify acute organ dysfunction: 286.6, 348.31, 357.82, 359.81, 518.81, 570, 584.5-584.9, 785.52)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
87070-87071, 87073-87075, 88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Shigella carrier is reported with ICD-9-CM code V02.3. Some primates. Shigellosis is reported with ICD-9-CM code 004.0. A suspected according to their biochemical reactions. All cause dysentery in humans and to four days. There are four species in the Shigella genus, and they differ individuals is the most common source of infection. Incubation period is one to four days. There are four species in the Shigella genus, and they differ

Vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected persons is the most common source of infection. Incubation period is one to four days. There are four species in the Shigella genus, and they differ according to their biochemical reactions. All cause dysentery in humans and some primates. Shigellosis is reported with ICD-9-CM code 004.0. A suspected Shigella carrier is reported with ICD-9-CM code V02.3.

**Explanation**

Code 87045 may be called a stool culture, culture for *Salmonella* and *Shigella*, or routine culture when stool or rectal swab is the specimen. The testing method includes gram staining and subculturing to selective media for the detection of bacterial growth. This test cultures specifically for the initial identification of enteric pathogens *Salmonella* and *Shigella*. Code 87046 may be requested by the name of the suspected pathogenic organism. Presumptive identification of aerobic pathogens or microorganisms in the stool sample is by means of identifying colony morphology. The test includes gram staining and subculturing to selective media for the detection of bacterial growth. There are several automated systems that detect the presence of bacteria using colorimetric, radiometric, or spectrophotometric means. The purpose of this stool culture test is to detect the presence of enteric pathogens in the form of aerobic bacteria and to identify the micro-organism(s), but not to the specific level of genus or species requiring additional testing, such as slide cultures. Report this code once for each plate prepared. Stool or rectal swab is the specimen.

**Coding Tips**

According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. To report blood culture, see code 87040.

**Terms To Know**

*salmonellosis*. Infection with the *Salmonella* bacteria. Common symptoms include diarrhea, fever, and abdominal cramps within 12 to 72 hours after infection with duration of four to seven days. Most persons infected with *Salmonella* recover without treatment, however patients with severe symptoms may need medical management in the hospital setting, particularly for hydration. In some instances, *Salmonella* infection may spread to the blood stream and infect other body sites resulting in death unless antibiotic treatment is started without delay. Patients with impaired immune systems, the elderly, and infants are more likely to develop severe infection. *Salmonella* infections are classified to ICD-9-CM category 003.

*shigellosis*. Infection by the rod-shaped, nonmotile, gram-negative bacteria of the genus *Shigella*, from the family *Enterobacteriaceae*. Known to cause an acute dysenteric infection of the bowel with fever, drowsiness, anorexia, nausea, vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected individuals is the most common source of infection. Incubation period is one to four days. There are four species in the *Shigella* genus, and they differ according to their biochemical reactions. All cause dysentery in humans and some primates. *Shigellosis* is reported with ICD-9-CM code 004.0. A suspected *Shigella* carrier is reported with ICD-9-CM code V02.3.
Culture, bacterial; any other source except urine, blood or stool, aerobic, with isolation and presumptive identification of isolates quantitative, aerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool.

**Explanation**

Common names for this test are numerous and may include routine culture, aerobic culture, or, using a body or source site, may be referred to as vaginal culture, cerebral spinal fluid culture, etc. Presumptive identification of aerobic pathogens or microorganisms in the sample is by means of identifying colony morphology. The test includes gram staining and subculturing to selective media for the detection of bacterial growth. There are several automated systems that detect the presence of bacteria using colorimetric, radiometric, or spectrophotometric means. The purpose of this culture test is to detect the presence of any or multiple aerobic bacteria from a body source or site, except urine, blood, or stool samples, and to identify the micro-organism(s), but not to the specific level of genus or species requiring additional testing, such as slide cultures. The collection and transport of specimen is varied and specimen dependent. Report 87071 when the identified aerobic isolate(s) is quantified in growth numbers.

**Coding Tips**

According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains, or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. To report urine culture, consult CPT codes 87086-87088.

**Terms To Know**

- **aerobic.** Atmospheric or dissolved oxygen is available.
- **specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>020.0</td>
<td>Bubonic plague</td>
</tr>
<tr>
<td>020.1</td>
<td>Cellulocutaneous plague</td>
</tr>
<tr>
<td>020.2</td>
<td>Septicemic plague</td>
</tr>
<tr>
<td>020.3</td>
<td>Primary pneumonic plague</td>
</tr>
<tr>
<td>036.0</td>
<td>Meningococcal meningitis</td>
</tr>
<tr>
<td>036.1</td>
<td>Meningococcal encephalitis</td>
</tr>
<tr>
<td>036.2</td>
<td>Meningococcemia</td>
</tr>
<tr>
<td>040.0</td>
<td>Gas gangrene</td>
</tr>
<tr>
<td>041.10</td>
<td>Unspecified staphylococcus infection classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>041.11</td>
<td>Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
</tr>
<tr>
<td>041.12</td>
<td>Methicillin resistant Staphylococcus aureus</td>
</tr>
<tr>
<td>041.19</td>
<td>Other staphylococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
</tr>
<tr>
<td>320.82</td>
<td>Meningitis due to gram-negative bacteria, not elsewhere classified</td>
</tr>
<tr>
<td>320.89</td>
<td>Meningitis due to other specified bacteria</td>
</tr>
<tr>
<td>320.9</td>
<td>Meningitis due to unspecified bacterium</td>
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<tr>
<td>382.00</td>
<td>Acute suppurative otitis media without spontaneous rupture of eardrum</td>
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<td>382.01</td>
<td>Acute suppurative otitis media with spontaneous rupture of eardrum</td>
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<td>382.2</td>
<td>Chronic aticoanal suppurative otitis media</td>
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<tr>
<td>466.11</td>
<td>Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)</td>
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<td>481</td>
<td>Pneumococcal pneumonia (streptococcus pneumoniae pneumonia)</td>
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<td>482.0</td>
<td>Pneumonia due to Klebsiella pneumoniae</td>
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<td>484.3</td>
<td>Pneumonia in whooping cough — (Code first underlying disease: 033.0-033.9)</td>
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<td>567.1</td>
<td>Pneumococcal peritonitis</td>
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<tr>
<td>567.21</td>
<td>Peritonitis (acute) generalized</td>
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<tr>
<td>567.22</td>
<td>Peritoneal abscess</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

88387-88388

Also not with 87071: 87070, 87081, 87084

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**87073**
87073  Culture, bacterial; quantitative, anaerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool

**Explanation**
The most common name for this procedure is anaerobic culture. Presumptive identification of anaerobic pathogens or microorganisms in the sample is by means of identifying colony morphology. The test includes gram staining and subculturing to selective media for the detection of bacterial growth. There are several automated systems that detect the presence of bacteria using colorimetric, radiometric, or spectrophotometric means. This culture test detects the presence of anaerobic bacteria in a body site or source, except blood, urine, or stool samples, are collected in anaerobic vials or with anaerobic transport swabs and transported immediately. Anaerobic bacteria are sensitive to oxygen and cold.

**Coding Tips**
According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing all define presumptive testing. To report definitive identification of isolates, consult CPT code 87076 or 87077. To report typing of isolates, consult CPT codes 87140-87158.

**Terms To Know**
quantitative. To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**
020.0 Bubonic plague
021.1 Enteric tularemia
021.2 Pulmonary tularemia
021.3 Oculoglandular tularemia
022.0 Cutaneous anthrax
022.1 Pulmonary anthrax
022.2 Gastrointestinal anthrax
022.3 Anthrax septicemia
023.0 Brucella melitensis
023.1 Brucella abortus
023.2 Brucella suis
023.3 Brucella canis
032.82 Diphtheritic myocarditis
032.83 Diphtheritic peritonitis
032.84 Diphtheritic cystitis
032.85 Cutaneous diphtheria
037 Tetanus

039.0 Cutaneous actinomycotic infection
039.1 Pulmonary actinomycotic infection
039.2 Abdominal actinomycotic infection
039.3 Cervicofacial actinomycotic infection
040.0 Gas gangrene
041.11 Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.12 Methicillin resistant Staphylococcus aureus
041.19 Other staphylococcus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.82 Bacterial infection in conditions classified elsewhere, Bacteroides fragilis — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.83 Clostridium perfringens infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
041.84 Infection due to other anaerobes in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
098.2 Gonococcal infections, chronic, of lower genitourinary tract
098.30 Chronic gonococcal infection of upper genitourinary tract, site unspecified
098.32 Gonococcal prostatitis, chronic
098.33 Gonococcal epididymo-orchitis, chronic
098.34 Gonococcal seminal vesiculitis, chronic
320.2 Streptococcal meningitis
320.3 Staphylococcal meningitis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

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**87076-87077**

87076  Culture, bacterial; anaerobic isolate, additional methods required for definitive identification, each isolate

87077  aerobic isolate, additional methods required for definitive identification, each isolate

**Explanation**

This code reports definitive anaerobic (87076) or aerobic (87077) organism identification of an already-isolated anaerobic or aerobic bacterium. The pathogen has already been presumptively identified, but additional testing is required to identify the specific genus or species. The additional definitive testing methods include biochemical panels and slide cultures. Studies using chromatography, molecular probes, or specific immunological techniques may be employed for definitive testing, but are not included in this code and are reported separately.

**Coding Tips**

Report once for isolate. Code 87077 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. To report gas liquid chromatography or high pressure liquid chromatography, consult CPT code 87143.

**Terms To Know**

_aerobic._ Atmospheric or dissolved oxygen is available.

_CLIA._ Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

**ICD-9-CM Diagnostic Codes**

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<td>Salmonella gastroenteritis</td>
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<tr>
<td>003.1</td>
<td>Salmonella septicemia</td>
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<tr>
<td>003.29</td>
<td>Other localized salmonella infections</td>
</tr>
<tr>
<td>003.8</td>
<td>Other specified salmonella infections</td>
</tr>
<tr>
<td>003.9</td>
<td>Unspecified salmonella infection</td>
</tr>
<tr>
<td>004.0</td>
<td>Shigella dysenteriae</td>
</tr>
<tr>
<td>004.8</td>
<td>Other specified shigella infections</td>
</tr>
<tr>
<td>004.9</td>
<td>Unspecified shigellosis</td>
</tr>
<tr>
<td>005.0</td>
<td>Staphylococcal food poisoning</td>
</tr>
<tr>
<td>005.1</td>
<td>Botulism food poisoning</td>
</tr>
<tr>
<td>005.2</td>
<td>Food poisoning due to Clostridium perfringens (C. welchii)</td>
</tr>
<tr>
<td>005.3</td>
<td>Food poisoning due to other Clostridia</td>
</tr>
<tr>
<td>005.89</td>
<td>Other bacterial food poisoning</td>
</tr>
<tr>
<td>005.9</td>
<td>Unspecified food poisoning</td>
</tr>
<tr>
<td>008.00</td>
<td>Intestinal infection due to unspecified E. coli</td>
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<tr>
<td>008.01</td>
<td>Intestinal infection due to enteropathogenic E. coli</td>
</tr>
<tr>
<td>008.02</td>
<td>Intestinal infection due to enterotoxigenic E. coli</td>
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<td>008.09</td>
<td>Intestinal infection due to other intestinal E. coli infections</td>
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<tr>
<td>595.0</td>
<td>Acute cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
</tr>
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<td>595.3</td>
<td>Trigonitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
</tr>
<tr>
<td>599.0</td>
<td>Urinary tract infection, site not specified — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
</tr>
<tr>
<td>601.0</td>
<td>Acute prostatitis — (Use additional code to identify organism: 041.0, 041.1)</td>
</tr>
<tr>
<td>601.1</td>
<td>Chronic prostatitis — (Use additional code to identify organism: 041.0, 041.1)</td>
</tr>
<tr>
<td>601.3</td>
<td>Prostatocystitis — (Use additional code to identify organism: 041.0, 041.1)</td>
</tr>
<tr>
<td>601.4</td>
<td>Prostatitis in diseases classified elsewhere — (Use additional code to identify organism: 041.0, 041.1, Code first underlying disease: 016.5, 039.8, 095.8, 116.0)</td>
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<tr>
<td>601.9</td>
<td>Unspecified prostatitis — (Use additional code to identify organism: 041.0, 041.1)</td>
</tr>
<tr>
<td>604.0</td>
<td>Orchitis, epididymitis, and epididymo-orchitis, with abscess — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19, 041.41-041.49)</td>
</tr>
<tr>
<td>790.7</td>
<td>Bacteremia — (Use additional code to identify organism: 041)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-4,16,70.8

**CCI Version 20.0**

88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87081-87084

87081 Culture, presumptive, pathogenic organisms, screening only;
with colony estimation from density chart

Explanation
This is a presumptive screening culture for one or more pathogenic organisms. The methodology is by culture and the culture should be identified by type (e.g., anaerobic, aerobic) and specimen source (e.g., pleural, peritoneal, bronchial aspirates). If a specific organism is suspected, the person ordering the test will typically use common names, such as strep screen, staph screen, etc., to specify the organism for screening. Presumptive identification includes gram staining as well as up to three tests, such as a catalase, oxidase, or urease test. Screenings included in this code are nonmotile, catalase-positive, gram-positive rod bacteria. Report 87084 when an estimation of the number of organisms is also made, based on a density chart.

Coding Tips
According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. Screening cultures for specific pathogens should be reported with this CPT code as opposed to comprehensive culture codes, which are cultures to recover a broad spectrum of pathogenic organisms. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
screening test. Exam or study used by a physician to identify abnormalities, regardless of whether the patient exhibits symptoms.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
003.0 Salmonella gastroenteritis
003.1 Salmonella septicemia
003.20 Unspecified localized salmonella infection
003.29 Other localized salmonella infections
003.8 Other specified salmonella infections
004.0 Shigella dysenteriae
004.8 Other specified shigella infections
004.9 Unspecified shigellosis
005.0 Staphylococcal food poisoning
005.1 Botulism food poisoning
005.2 Food poisoning due to Clostridium perfringens (C. welchii)
005.3 Food poisoning due to other Clostridia
008.49 Intestinal infection due to other organisms
008.5 Intestinal infection due to unspecified bacterial enteritis
008.61 Intestinal infection, enteritis due to rotavirus

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<tr>
<th>Work Value</th>
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<th>Malpractice</th>
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</table>

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**87086-87088 - NCD**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>87086</td>
<td>Culture, bacterial; quantitative colony count, urine</td>
</tr>
<tr>
<td>87088</td>
<td>with isolation and presumptive identification of each isolate, urine</td>
</tr>
</tbody>
</table>

**Explanation**
These codes report the performance of a urine bacterial culture with a calibrated inoculating device so that a colony count accurately correlates with the number of organisms in the urine. In 87088, isolation and presumptive identification of bacteria recovered from the sample is done by means of identifying colony morphology, subculturing organisms to selective media and the performance of a gram stain or other simple test to identify bacteria to the genus level. There are several automated systems that detect the presence of bacteria using colorimetric, radiometric, or spectrophotometric means. In 87086, quantified colony count numbers within the urine sample are measured.

**Coding Tips**
A national coverage determination (NCD) exists for these codes. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.12. According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

**quantitative.** To determine the amount and nature of the components of a substance.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>580.0</td>
<td>Acute glomerulonephritis with lesion of proliferative glomerulonephritis</td>
</tr>
<tr>
<td>580.4</td>
<td>Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis</td>
</tr>
<tr>
<td>580.81</td>
<td>Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)</td>
</tr>
<tr>
<td>580.9</td>
<td>Acute glomerulonephritis with unspecified pathological lesion in kidney</td>
</tr>
<tr>
<td>583.0</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis</td>
</tr>
<tr>
<td>583.1</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranous glomerulonephritis</td>
</tr>
<tr>
<td>583.2</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis</td>
</tr>
<tr>
<td>583.4</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis</td>
</tr>
<tr>
<td>583.6</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis</td>
</tr>
<tr>
<td>583.7</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal medullary necrosis</td>
</tr>
<tr>
<td>583.81</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere — (Code first underlying disease: 016.0, 098.19, 249.4, 250.4, 277.30-277.39, 446.21, 710.0)</td>
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<tr>
<td>583.89</td>
<td>Other nephritis and nephropathy, not specified as acute or chronic, with specified pathological lesion in kidney</td>
</tr>
<tr>
<td>583.9</td>
<td>Nephritis and nephropathy, not specified as acute or chronic, with unspecified pathological lesion in kidney</td>
</tr>
<tr>
<td>590.01</td>
<td>Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)</td>
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<tr>
<td>590.10</td>
<td>Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)</td>
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<td>590.11</td>
<td>Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)</td>
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<td>590.2</td>
<td>Renal and perinephric abscess — (Use additional code to identify organism, such as E. coli, 041.41-041.49)</td>
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<td>590.81</td>
<td>Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0)</td>
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<td>601.0</td>
<td>Acute prostatitis — (Use additional code to identify organism: 041.0, 041.1)</td>
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<td>601.1</td>
<td>Chronic prostatitis — (Use additional code to identify organism: 041.0, 041.1)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-3, 190.12

**CCI Version 20.0**
87070-87071, 87073-87075, 87084, 88387-88388

Also not with 87086: 87081

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</tbody>
</table>
Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; skin, hair, or nail

Explanation
Dermatophyte culture and fungal culture are common names for this test. Fungi are divided into two broad categories, yeasts and molds. Skin, hair or nail scrapings from infected site are transferred to appropriate agar. Growth and confirmation by microscopic methods identify, or confirm, a presumptive identification of fungus isolated. Alternately, the scrapings are dropped onto dermatophyte test media (DTM) at the time of collection. The media changes color to indicate dermatophyte growth.

Coding Tips
Report CPT code 87106, definitive identification, in addition to CPT code 87101 when appropriate. According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know

coccidioidomycosis. Condition where fungus invades the body producing fever and pulmonary difficulties.
dermatophytosis. Superficial parasitic fungal infections occurring in the skin, hair, or nails that involve the corneal stratum, or outermost layer of cells, commonly referring to ringworm and athlete’s foot. See ICD-9-CM category 110 for correct code assignment based upon anatomical site.

ICD-9-CM Diagnostic Codes
110.0 Dermatophytosis of scalp and beard — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.1 Dermatophytosis of nail — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.2 Dermatophytosis of hand — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.3 Dermatophytosis of groin and perianal area — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.4 Dermatophytosis of foot — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.5 Dermatophytosis of the body — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.6 Deep seated dermatophytosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
111.0 Pityriasis versicolor — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
111.1 Tinea nigra — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
111.2 Tinea blanca — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
111.3 Black piedra — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
111.8 Other specified dermatomycoses — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.3 Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
115.00 Histoplasma capsulatum, without mention of manifestation
115.09 Histoplasma capsulatum, with mention of other manifestation
116.0 Blastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
116.2 Lobomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.1 Sporotrichosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.2 Chromoblastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.3 Aspergillosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
88387-88388
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

110.0 Dermatophytosis of scalp and beard — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.1 Dermatophytosis of nail — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.2 Dermatophytosis of hand — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.4 Dermatophytosis of foot — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.5 Dermatophytosis of the body — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.6 Deep seated dermatophytosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.0 Candidiasis of mouth — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.2 Candidiasis of other urogenital sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.3 Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.4 Candidiasis of lung — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.5 Disseminated candidiasis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.81 Candidal endocarditis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.82 Candidal otitis externa — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.83 Candidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.84 Candidiasis of the esophagus — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.85 Candidiasis of the intestine — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.0 Primary coccidioidomycosis (pulmonary) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
114.9 Unspecified coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
115.00 Histoplasma capsulatum, without mention of manifestation
115.10 Histoplasma duboisii, without mention of manifestation
115.90 Unspecified Histoplasmosis without mention of manifestation
116.0 Blastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
116.1 Paracoccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
116.2 Lobomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.0 Rhinosporidiosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.1 Sporotrichosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.2 Chromoblastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.3 Aspergillosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.4 Myotic mycetomas — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.5 Cryptococcosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.6 Allescheriosis (Petriellidiosis) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.7 Zygomycosis (Phycomycosis or Mucormycosis) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; blood**

**Explanation**
Fungal blood culture and blood culture for yeast are common names for this procedure. Blood is subcultured to fungal media. This test procedure is a culture to isolate fungi (yeast or mold) with presumptive identification. Presumptive identification may include fungi (yeast or mold) present or a genus name with no species (e.g., Aspergillus).

**Coding Tips**
Report CPT code 87106, definitive identification, in addition to CPT code 87103 when appropriate. According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing, all define presumptive testing. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.0</td>
<td>Dermatophytosis of scalp and beard — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.1</td>
<td>Dermatophytosis of nail — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.2</td>
<td>Dermatophytosis of hand — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.3</td>
<td>Dermatophytosis of groin and perianal area — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>110.4</td>
<td>Dermatophytosis of foot — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>112.0</td>
<td>Candidiasis of mouth — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.1</td>
<td>Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.2</td>
<td>Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<tr>
<td>112.3</td>
<td>Candidiasis of lung — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>112.4</td>
<td>Disseminated candidiasis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.5</td>
<td>Candidal endocarditis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.81</td>
<td>Candidal otitis externa — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.82</td>
<td>Candidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.84</td>
<td>Candidiasis of the esophagus — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>112.85</td>
<td>Candidiasis of the intestine — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.0</td>
<td>Primary coccidioidomycosis (pulmonary) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.1</td>
<td>Primary extrapulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.2</td>
<td>Coccidioidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.4</td>
<td>Chronic pulmonary coccidioidomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>115.00</td>
<td>Histoplasma capsulatum, without mention of manifestation</td>
</tr>
<tr>
<td>115.10</td>
<td>Histoplasma duboisii, without mention of manifestation</td>
</tr>
<tr>
<td>115.11</td>
<td>Histoplasma duboisii meningitis</td>
</tr>
<tr>
<td>115.12</td>
<td>Histoplasma duboisii retinitis</td>
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<td>115.13</td>
<td>Histoplasma duboisii pericarditis</td>
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<td>115.14</td>
<td>Histoplasma duboisii endocarditis</td>
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<tr>
<td>115.15</td>
<td>Histoplasma duboisii pneumonia</td>
</tr>
<tr>
<td>115.19</td>
<td>Histoplasma duboisii with mention of other manifestation</td>
</tr>
<tr>
<td>117.4</td>
<td>Mycotic mycetomas — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.5</td>
<td>Cryptococcosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
This test is commonly known as a fungal yeast identification. Yeast isolates from fungal cultures are further tested for definitive identification. This code reports testing only for yeast pathogens. Various identification procedures, including growth patterns, and macroscopic and microscopic characteristics, are employed. Examples of fungal yeast pathogens that might require definitive identification include: Histoplasma, Coccidioides and Blastomyces.

**Coding Tips**

Definitive identification is defined by the AMA as identification to the genus or species level that required additional testing such as biochemical panels or slide cultures. For additional studies involving molecular probes, nucleic acid sequencing, chromatography, or immunologic techniques separately, consult CPT codes 87140-87158. Report CPT code 87106 in addition to 87101, 87102, or 87103 when appropriate. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

- **coccidiosis.** Infection by the protozoan Isospora hominis or I. belli, usually asymptomatic and found by testing stool sample, reported with ICD-9-CM code 007.2. **Synonym(s):** isosporiasis.
- **histoplasmosis.** Infection resulting from inhalation of fungal spores, causing acute pneumonia, an influenza-like illness, or a disseminated disease of the reticuloendothelial system. In immunocompromised patients it can reactivate, affecting the lungs, meninges, heart, peritoneum, and adrenals.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>114.0</td>
<td>Primary coccidioidomycosis (pulmonary)</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.1</td>
<td>Primary extrapulmonary coccidioidomycosis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.2</td>
<td>Coccidioidal meningitis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.3</td>
<td>Other forms of progressive coccidioidomycosis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.4</td>
<td>Chronic pulmonary coccidioidomycosis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.5</td>
<td>Unspecified pulmonary coccidioidomycosis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>114.9</td>
<td>Unspecified coccidioidomycosis</td>
<td>(Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>115.90</td>
<td>Unspecified Histoplasmosis without mention of manifestation</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>115.91</td>
<td>Unspecified Histoplasmosis meningitis</td>
</tr>
<tr>
<td>115.92</td>
<td>Unspecified Histoplasmosis retinitis</td>
</tr>
<tr>
<td>115.93</td>
<td>Unspecified Histoplasmosis pericarditis</td>
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<td>115.94</td>
<td>Unspecified Histoplasmosis endocarditis</td>
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<td>115.95</td>
<td>Unspecified Histoplasmosis pneumonia</td>
</tr>
<tr>
<td>115.99</td>
<td>Unspecified Histoplasmosis with mention of other manifestation</td>
</tr>
<tr>
<td>116.0</td>
<td>Blastomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87107

Culture, fungi, definitive identification, each organism; mold

Explanation
This test is commonly known as a mold identification. Molds are filamentous fungi that can cause severe, life-threatening infections in immunocompromised individuals. Mold isolates from fungal cultures are further tested for definitive identification. Various identification procedures, including growth patterns, and macroscopic and microscopic characteristics, are employed. Examples of conidium-forming filamentous fungi species that might require definitive identification include: Aspergillus sp., Fusarium sp., Rhizopus arrhizus, Scedosporium apiospermum and Sporothrix schenckii.

Coding Tips
Definitive identification is defined by the AMA as identification to the genus or species level that required additional testing such as biochemical panels or slide cultures. For additional studies involving molecular probes, nucleic acid sequencing, chromatography, or immunologic techniques separately, consult CPT codes 87140-87158. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Aspergillosis, infection by Aspergillus species, mainly A. fumigatus, A. flavus group, A terreus group, is classified to ICD-9-CM subcategory 117.4.

Terms To Know
aspergillosis. Infection by Aspergillus species, mainly A. Fumigatus, A. flavus group, or A. terreus group. This condition is classifiable to ICD-9-CM subcategory 117.3.
culture. Growth of microorganisms in a medium conducive to their development.
myc-. Relating to fungus. Synonym(s): myco-.

ICD-9-CM Diagnostic Codes
117.0 Rhinosporidiosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.3 Aspergillosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.4 Mycotic mycetomas — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.6 Allescheriosis (Petriellidiosis) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
117.9 Other and unspecified mycoses — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
118 Opportunistic mycoses — (Use additional code to identify manifestation: 321.0-321.1, 370.8, 380.15, 711.6)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
### 87109

**Culture, mycoplasma, any source**

**Explanation**
A common name for this test is Mycoplasma culture. Specimens are typically transported in viral transport media (VTM). Mycoplasma culture methods are employed. This procedure is for the isolation and identification of Mycoplasma.

**Coding Tips**
According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains, or up to three of the following: catalase, oxidase, indole, and/or urease testing all define presumptive testing. Screening cultures for specific pathogens should be reported with this CPT code as opposed to comprehensive culture codes, which are cultures to recover a broad spectrum of pathogenic organisms. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Signs and symptoms of pneumonia vary according to etiology, but often include coughing, sputum production, pleuritic chest pain, rales, and fever. The presence of infiltration or consolidation is usually evident on radiological exam. Blood work may show abnormal or elevated white blood cell (WBC) count. Smears, cultures, and gram stains of sputum and/or pleural fluid isolate and identify bacteria. Percutaneous aspiration of lung tissue, endoscopic or open lung biopsy identifies difficult nonbacterial agents such as cytomegalovirus.

**Terms To Know**
culture. Growth of microorganisms in a medium conducive to their development.
myc-. Relating to fungus. Synonym(s): myco-.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>041.81</td>
<td>Mycoplasma infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
</tr>
<tr>
<td>483.0</td>
<td>Pneumonia due to Mycoplasma pneumoniae</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

<table>
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<tr>
<th>88387-88388</th>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
Explanation
This test is commonly known as a Chlamydia culture. A swab of the infected site is placed in a vial of sucrose transport media containing antibiotics and glass beads. The specimen is generally kept refrigerated. The test method is by cell culture, fluorescent stain. The cell culture technique is to isolate for Chlamydia.

Coding Tips
According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing all define presumptive testing. Screening cultures for specific pathogens should be reported with this CPT code as opposed to comprehensive culture codes, which are cultures to recover a broad spectrum of pathogenic organisms. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
chlamydia trachomatis. Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter's syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.

culture. Growth of microorganisms in a medium conducive to their development.

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
078.88 Other specified diseases due to Chlamydiae
079.88 Other specified chlamydial infection, in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
079.98 Unspecified chlamydial infection, in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
099.1 Lymphogranuloma venereum
483.1 Pneumonia due to Chlamydia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
**87116**

*Culture, tubercle or other acid-fast bacilli (e.g., TB, AFB, mycobacteria) any source, with isolation and presumptive identification of isolates*

**Explanation**

Common names include AFB culture, TB culture, mycobacterium culture, and acid-fast culture. Collection methods are source dependent. The methodology is by culture for the isolation and presumptive identification of mycobacterium. An acid-fast smear should be done at the time the specimen is cultured. Media for isolation should include both solid and liquid types.

**Coding Tips**

According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains, or up to three of the following: catalase, oxidase, indole, and/or urease testing all define presumptive testing. Screening cultures for specific pathogens should be reported with this CPT code as opposed to comprehensive culture codes, which are cultures to recover a broad spectrum of pathogenic organisms. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**

<table>
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<tr>
<th>Code</th>
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<td>010.10</td>
<td>Tuberculous pleurisy in primary progressive tuberculosis, confirmation unspecified</td>
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<td>010.80</td>
<td>Other primary progressive tuberculosis infection, confirmation unspecified</td>
</tr>
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<td>010.90</td>
<td>Primary tuberculosis infection, unspecified, confirmation unspecified</td>
</tr>
<tr>
<td>011.00</td>
<td>Tuberculosis of lung, infiltrative, confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
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<tr>
<td>011.10</td>
<td>Tuberculosis of lung, nodular, confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
</tr>
<tr>
<td>011.20</td>
<td>Tuberculosis of lung with cavitation, confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
</tr>
<tr>
<td>011.30</td>
<td>Tuberculosis of bronchus, confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
</tr>
<tr>
<td>011.60</td>
<td>Tuberculous pneumonia (any form), confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
</tr>
<tr>
<td>011.80</td>
<td>Other specified pulmonary tuberculosis, confirmation unspecified — (Use additional code to identify any associated silicosis, S02)</td>
</tr>
<tr>
<td>012.80</td>
<td>Other specified respiratory tuberculosis, confirmation unspecified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>015.00</td>
<td>Tuberculosis of vertebral column, confirmation unspecified — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.01</td>
<td>Tuberculosis of vertebral column, bacteriological or histological examination not done — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.02</td>
<td>Tuberculosis of vertebral column, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.03</td>
<td>Tuberculosis of vertebral column, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.05</td>
<td>Tuberculosis of vertebral column, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>015.06</td>
<td>Tuberculosis of vertebral column, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals] — (Use additional code to identify manifestation: 711.4, 720.81, 727.01, 730.8, 737.4)</td>
</tr>
<tr>
<td>018.90</td>
<td>Unspecified miliary tuberculosis, unspecified</td>
</tr>
<tr>
<td>039.9</td>
<td>Actinomycotic infection of unspecified site</td>
</tr>
<tr>
<td>V01.1</td>
<td>Contact with or exposure to tuberculosis</td>
</tr>
<tr>
<td>V12.01</td>
<td>Personal history of tuberculosis</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87118  
87118  Culture, mycobacterial, definitive identification, each isolate

**Explanation**  
This procedure is a definitive identification of mycobacterial organisms isolated by procedure 87116. This procedure may be performed by a reference laboratory after isolation by a primary lab. Methodology is traditional biochemical tests for identification of mycobacterium.

**Coding Tips**  
Definitive identification is defined by the AMA as identification to the genus or species level that required additional testing such as biochemical panels or slide cultures. Report additional studies involving molecular probes, nucleic acid sequencing, chromatography, or immunologic techniques separately, consult CPT codes 87140-87158. 

**Terms To Know**  
**laboratory.** Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.  

**specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.  

**tuberculosis.** Chronic variable disease caused by bacteria usually spread by inhalation of an airborne agent.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010.00</td>
<td>Primary tuberculous complex, confirmation unspecified</td>
</tr>
<tr>
<td>010.01</td>
<td>Primary tuberculous complex, bacteriological or histological examination not done</td>
</tr>
<tr>
<td>010.02</td>
<td>Primary tuberculous complex, bacteriological or histological examination unknown (at present)</td>
</tr>
<tr>
<td>010.03</td>
<td>Primary tuberculous complex, tubercle bacilli found (in sputum) by microscopy</td>
</tr>
<tr>
<td>010.04</td>
<td>Primary tuberculous complex, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture</td>
</tr>
</tbody>
</table>

**CCI Version 20.0**

88387-88388  
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
<th>Non-Fac Total</th>
<th>Fac Total</th>
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<td>0.00</td>
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<td>0.00</td>
</tr>
</tbody>
</table>

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**Culture, typing; identification by nucleic acid (DNA or RNA) probe, direct probe technique, per culture or isolate, each organism probed**

**Identification by nucleic acid (DNA or RNA) probe, amplified probe technique, per culture or isolate, each organism probed**

**Explanation**

Organisms from any type of culture are identified by nucleic acid probes. Nucleic acid (DNA or RNA) probes may be used to diagnose and monitor infectious diseases. These probes can be used to detect fungi and other organisms after they have been grown in culture. Culturing is required for many organisms because direct staining does not produce accurate results. Specificity using this culture technique is nearly 100 percent for many organisms. Report 87149 for direct probe technique and 87150 for amplified probe technique.

**Coding Tips**

Do not report codes 87149 and 87150 in conjunction with CPT codes 81200-81408. Definitive identification is defined by the AMA as identification to the genus or species level that required additional testing such as biochemical panels or slide cultures. Report additional studies involving molecular probes, nucleic acid sequencing, chromatography, or immunologic techniques separately, consult CPT codes 87140-87158. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies.

**ICD-9-CM Diagnostic Codes**

- **011.61** Tuberculous pneumonia (any form), bacteriological or histological examination not done — (Use additional code to identify any associated silicosis, 502)
- **011.62** Tuberculous pneumonia (any form), bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)
- **012.01** Tuberculous pleurisy, bacteriological or histological examination not done
- **012.02** Tuberculous pleurisy, bacteriological or histological examination unknown (at present)
- **012.11** Tuberculosis of intrathoracic lymph nodes, bacteriological or histological examination not done
- **012.12** Tuberculosis of intrathoracic lymph nodes, bacteriological or histological examination unknown (at present)
- **012.31** Tuberculous laryngitis, bacteriological or histological examination not done
- **012.32** Tuberculous laryngitis, bacteriological or histological examination unknown (at present)
- **013.01** Tuberculous meningitis, bacteriological or histological examination not done
- **013.02** Tuberculous meningitis, bacteriological or histological examination unknown (at present)
- **013.11** Tuberculoma of meninges, bacteriological or histological examination not done
- **013.12** Tuberculoma of meninges, bacteriological or histological examination unknown (at present)
- **013.20** Tuberculoma of brain, confirmation unspecified
- **013.22** Tuberculoma of brain, bacteriological or histological examination unknown (at present)
- **013.44** Tuberculosis of spinal cord, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
- **013.45** Tuberculosis of spinal cord, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
- **013.46** Tuberculoma of spinal cord, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]

**CCI Version 20.0**

80500-80502, 81400-81408, 87470-87492, 87495-87498, 87510-87622

Also not with 87149: 88387-88388

Also not with 87150: 87149

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87153

87153 Culture, typing; identification by nucleic acid sequencing method, each isolate (eg, sequencing of the 16S rRNA gene)

Explanation
This code describes the identification of organisms from any type of culture using the nucleic acid sequencing method. Isolation and identification of the genetic material of organisms known to be the infectious agent in certain diseases are helpful in determining the most precise therapy and antimicrobials for treatment of the patient. For example, identification of bacterial isolates by 16S rRNA gene sequencing identifies uncommon bacteria that cannot be identified using conventional methods.

Coding Tips
Report 87153 for each isolate. If additional studies involving molecular probes, chromatography, or immunologic techniques are performed, these should be reported separately. Definitive identification is defined by the AMA as identification to the genus or species level that required additional testing such as biochemical panels or slide cultures. Report additional studies involving molecular probes, nucleic acid sequencing, chromatography, or immunologic techniques separately, consult CPT codes 87140-87158. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes
010.01 Primary tuberculous complex, bacteriological or histological examination not done
010.02 Primary tuberculous complex, bacteriological or histological examination unknown (at present)
010.91 Primary tuberculous infection, unspecified, bacteriological or histological examination not done
010.92 Primary tuberculous infection, unspecified, bacteriological or histological examination unknown (at present)
011.00 Tuberculosis of lung, infiltrative, confirmation unspecified — (Use additional code to identify any associated silicosis, 502)
011.01 Tuberculosis of lung, infiltrative, bacteriological or histological examination not done — (Use additional code to identify any associated silicosis, 502)
011.20 Tuberculosis of lung with cavitation, confirmation unspecified — (Use additional code to identify any associated silicosis, 502)
011.21 Tuberculosis of lung with cavitation, bacteriological or histological examination not done — (Use additional code to identify any associated silicosis, 502)
011.22 Tuberculosis of lung with cavitation, bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)
011.45 Tuberculous fibrosis of lung, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically — (Use additional code to identify any associated silicosis, 502)
011.52 Tuberculous bronchiectasis, bacteriological or histological examination unknown (at present) — (Use additional code to identify any associated silicosis, 502)
011.53 Tuberculous bronchiectasis, tubercle bacilli found (in sputum) by microscopy — (Use additional code to identify any associated silicosis, 502)
012.01 Tuberculous pleurisy, bacteriological or histological examination not done
012.11 Tuberculosis of intrathoracic lymph nodes, bacteriological or histological examination not done
012.12 Tuberculosis of intrathoracic lymph nodes, bacteriological or histological examination unknown (at present)
013.32 Tuberculous abscess of brain, bacteriological or histological examination unknown (at present)
015.11 Tuberculosis of hip, bacteriological or histological examination not done — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)
015.12 Tuberculosis of hip, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)
015.61 Tuberculosis of mastoid, bacteriological or histological examination not done — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)
015.62 Tuberculosis of mastoid, bacteriological or histological examination unknown (at present) — (Use additional code to identify manifestation: 711.4, 727.01, 730.8)
017.51 Tuberculosis of thyroid gland, bacteriological or histological examination not done

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408, 87149-87150, 87470-87492, 87495-87498, 87501-87502, 87510-87622, 87640-87799

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Dark field examination, any source (eg, penile, vaginal, oral, skin); includes specimen collection

Explanation
Names commonly used include dark field for syphilis and dark field exam. Dark field microscopic exams have generally been limited to the bacteria called spirochetes. Treponema pallidum, the agent of syphilis; Borrelia burgdorferi, the agent of Lyme disease; and Leptospira are among the better known spirochetes. Specimens for dark field exam are typically examined within 30 minutes of collection. Certain immunological tests have rendered this method to be somewhat outdated. The term “dark field” refers to the staining method. If the lab is responsible for specimen collection, report 87164. If the lab is not responsible for collection of the specimen, report 87166.

Coding Tips
If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
Syphilis. Sexually transmitted disease caused by the treponema pallidum spirochete. Syphilis usually exhibits cutaneous manifestations and may exist for years without symptoms. Newborns may contract it via the placenta.

ICD-9-CM Diagnostic Codes
088.81 Lyme disease
090.0 Early congenital syphilis, symptomatic
090.1 Early congenital syphilis, latent
090.2 Unspecified early congenital syphilis
090.3 Syphilitic interstitial keratitis
090.40 Unspecified juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.41 Congenital syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
090.42 Congenital syphilitic meningitis — (Use additional code to identify any associated mental disorder)
090.49 Other juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.5 Other late congenital syphilis, symptomatic
090.6 Late congenital syphilis, latent
090.7 Late congenital syphilis, unspecified
090.9 Congenital syphilis, unspecified
091.0 Genital syphilis (primary)
091.1 Primary anal syphilis
091.2 Other primary syphilis
091.3 Secondary syphilis of skin or mucous membranes
091.4 Adenopathy due to secondary syphilis
091.50 Early syphilis, syphilitic uveitis, unspecified
091.51 Early syphilis, syphilitic chorioretinitis (secondary)
091.52 Early syphilis, syphilitic iridocyclitis (secondary)
091.61 Early syphilis, secondary syphilitic periostitis
091.62 Early syphilis, secondary syphilitic hepatitis
091.69 Early syphilis, secondary syphilis of other viscera
091.7 Early syphilis, secondary syphilis, relapse
091.81 Early syphilis, acute syphilitic meningitis (secondary)
091.82 Early syphilis, syphilitic alopeica
091.89 Early syphilis, other forms of secondary syphilis
091.9 Early syphilis, unspecified secondary syphilis
092.0 Early syphilis, latent, serological relapse after treatment
092.9 Early syphilis, latent, unspecified
093.0 Aneurysm of aorta, specified as syphilitic
093.1 Syphilitic aortitis
093.20 Unspecified syphilitic endocarditis of valve
093.21 Syphilitic endocarditis, mitral valve
093.22 Syphilitic endocarditis, aortic valve
093.23 Syphilitic endocarditis, tricuspid valve
093.24 Syphilitic endocarditis, pulmonary valve
093.81 Syphilitic pericarditis
093.82 Syphilitic myocarditis
093.89 Other specified cardiovascular syphilis
093.9 Unspecified cardiovascular syphilis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 88387-88388
Also not with 87164: 87166
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

87181-87184 - NCD
87181  Susceptibility studies, antimicrobial agent; agar dilution method, per agent (eg, antibiotic gradient strip)
87184  disk method, per plate (12 or fewer agents)

Explanation

Code 87181 represents the performance of a susceptibility study to determine the susceptibility of a bacterium to an antibiotic. The methodology is agar diffusion (the E test is a method of agar diffusion). The specific antibiotics could be chosen and limited. The test is reported per antibiotic tested. The agar dilution is reported as minimum inhibitory concentration (MIC), which is a method of measuring the exact amount of antibiotic needed to inhibit an organism. Code 87184 commonly called a Kirby-Bauer or Bauer-Kirby sensitivity test. It is a sensitivity test to determine the susceptibility of a bacterium to an antibiotic. The methodology is disk diffusion and results are reported as sensitive, intermediate, or resistant. As many as 12 antibiotic disks may be used per plate and the procedure is billed per plate not per antibiotic disk.

Coding Tips

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. A national coverage determination (NCD) exists for code 87184. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.12.

Terms To Know

Term: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

NCD. National coverage determinations. National policy statements granting, eliminating, or excluding Medicare coverage for a service, item, or test and indicate CMS policy regarding the circumstances under which the service, item, or test is considered reasonable and necessary or otherwise not covered for Medicare purposes.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>005.0</td>
<td>Staphylococcal food poisoning</td>
</tr>
<tr>
<td>005.1</td>
<td>Botulism food poisoning</td>
</tr>
<tr>
<td>005.2</td>
<td>Food poisoning due to Clostridium perfringens (C. welchii)</td>
</tr>
<tr>
<td>005.3</td>
<td>Food poisoning due to other Clostridia</td>
</tr>
<tr>
<td>005.4</td>
<td>Food poisoning due to Vibrio paraahaemolyticus</td>
</tr>
<tr>
<td>005.81</td>
<td>Food poisoning due to Vibrio vulnificus</td>
</tr>
<tr>
<td>005.89</td>
<td>Other bacterial food poisoning</td>
</tr>
<tr>
<td>005.9</td>
<td>Unspecified food poisoning</td>
</tr>
<tr>
<td>008.00</td>
<td>Intestinal infection due to unspecified E. coli</td>
</tr>
<tr>
<td>008.01</td>
<td>Intestinal infection due to enteropathogenic E. coli</td>
</tr>
<tr>
<td>008.02</td>
<td>Intestinal infection due to enteroaggregative E. coli</td>
</tr>
<tr>
<td>008.03</td>
<td>Intestinal infection due to enteroinvasive E. coli</td>
</tr>
<tr>
<td>008.04</td>
<td>Intestinal infection due to enterohemorrhagic E. coli</td>
</tr>
<tr>
<td>008.09</td>
<td>Intestinal infection due to other intestinal E. coli infections</td>
</tr>
<tr>
<td>008.1</td>
<td>Intestinal infection due to Arizona group of paracolon bacilli</td>
</tr>
<tr>
<td>008.2</td>
<td>Intestinal infection due to aerobacter aerogenes</td>
</tr>
<tr>
<td>008.3</td>
<td>Intestinal infections due to proteus (mirabilis) (morganii)</td>
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<tr>
<td>008.41</td>
<td>Intestinal infections due to staphylococcus</td>
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<tr>
<td>008.42</td>
<td>Intestinal infections due to pseudomonas</td>
</tr>
<tr>
<td>008.43</td>
<td>Intestinal infections due to campylobacter</td>
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<tr>
<td>008.44</td>
<td>Intestinal infections due to yersinia enterocolitica</td>
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<tr>
<td>008.45</td>
<td>Intestinal infections due to clostridium difficile</td>
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<td>008.46</td>
<td>Intestinal infections due to other anaerobes</td>
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<td>008.47</td>
<td>Intestinal infections due to other gram-negative bacteria</td>
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<tr>
<td>008.49</td>
<td>Intestinal infection due to other organisms</td>
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<td>008.5</td>
<td>Intestinal infection due to unspecified bacterial enteritis</td>
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<td>008.67</td>
<td>Intestinal infection, enteritis due to enteroxenous not elsewhere classified</td>
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<tr>
<td>008.8</td>
<td>Intestinal infection due to other organism, NEC</td>
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<td>023.9</td>
<td>Brucellosis, unspecified</td>
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<tr>
<td>599.0</td>
<td>Urinary tract infection, site not specified — (Use additional code to identify organism, such as E. coli: 041.41-041.49)</td>
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<tr>
<td>599.70</td>
<td>Hematuria, unspecified</td>
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<td>599.71</td>
<td>Gross hematuria</td>
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<td>599.72</td>
<td>Microscopic hematuria</td>
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<tr>
<td>780.60</td>
<td>Fever, unspecified</td>
</tr>
<tr>
<td>780.61</td>
<td>Fever presenting with conditions classified elsewhere — (Code first underlying condition when associated fever is present: 204-208, 282.60-282.69, 288.00-288.09)</td>
</tr>
<tr>
<td>790.0</td>
<td>Bacteremia — (Use additional code to identify organism: 041)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-3,190.12

CCI Version 20.0

87188-87190, 88387-88388
Also not with 87181: 87184-87186
Also not with 87184: 87186

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87186-87187 - NCD

87186  Susceptibility studies, antimicrobial agent; microdilution or agar dilution (minimum inhibitory concentration [MIC] or breakpoint), each multi-antimicrobial, per plate

87187  microdilution or agar dilution, minimum lethal concentration (MLC), each plate (List separately in addition to code for primary procedure)

Explanation
Code 87186 may be called an MIC, or a sensitivity test. It is a sensitivity test to determine the susceptibility of a bacterium to an antibiotic. The methodology is microtiter dilution (several commercial panels use this method). Results are given as a minimum inhibitory concentration (MIC) with an interpretation of sensitive, intermediate, or resistant. The antibiotics on commercial plates are numerous, but predetermined. The procedure is charged by plate not by antibiotic. Code 87187 may be called an MBC (minimum bactericidal concentration). MBC is the dilution of antibiotic needed to kill the bacteria. MICs are tube dilutions read visually. Tubes that may visually appear to have no growth are cultured to solid media to detect a concentration of antibiotic where no organisms grow (MBC).

Coding Tips
A national coverage determination (NCD) exists for code 87186. See the Medicare National Coverage Determinations Manual, Pub. 100-03, section 190.12. Note that code 87187 is an add-on code and must be used in conjunction with CPT code 87186 or 87188.

ICD-9-CM Diagnostic Codes
003.1  Salmonella septicemia
038.0  Streptococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.11 Methicillin susceptible Staphylococcus aureus septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.12 Methicillin resistant Staphylococcus aureus septicemia
038.2  Pneumococcal septicemia — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.3  Septicemia due to anaerobes — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.40 Septicemia due to unspecified gram-negative organism — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.41 Septicemia due to hemophilus influenzae (H. influenzae) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
038.44 Septicemia due to serrata — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)
288.01 Congenital neutropenia — (Use additional code for any associated fever: 780.6)
288.02 Cyclic neutropenia — (Use additional code for any associated fever: 780.6)
288.04 Neutropenia due to infection — (Use additional code for any associated fever: 780.6)
580.0  Acute glomerulonephritis with lesion of proliferative glomerulonephritis
580.4  Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis
580.81 Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)
614.3  Acute paramestriis and pelvic cellulitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
616.0  Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
771.81 Septicemia (sepsis) of newborn — (Use additional code to identify organism: 041.00-041.09) (Use additional codes to identify severe sepsis [995.92] and any associated acute organ dysfunction, if applicable)
771.82 Urinary tract infection of newborn — (Use additional code(s) to further specify condition. Use additional code to identify organism: 041.00-041.09)
771.83 Bacteremia of newborn — (Use additional code(s) to further specify condition. Use additional code to identify organism: 041.00-041.09)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3, 190.12
CCI Version 20.0
88387-88388
Also not with 87186: 87188-87190
Note: These CCI edits are used for Medicare. Other payers may reimurse on codes listed above.
87188
87188 Susceptibility studies, antimicrobial agent; macrobroth dilution method, each agent

Explanation
This test may be referred to as an MIC (minimum inhibitory concentration). It is a susceptibility test to determine the sensitivity of a bacterium to an antibiotic. The methodology is macrobroth dilution. Results are given as a minimum inhibitory concentration (MIC) with an interpretation of sensitive, intermediate, or resistant.

Coding Tips
The procedure is charged per antibiotic tested. Note that code 87187 is an add-on code and is applicable for use in conjunction with CPT code 87188.

Terms To Know
Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
590.01 Chronic pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code if applicable, any causal condition first)
590.10 Acute pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.11 Acute pyelonephritis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.40-041.49)
590.2 Renal and perinephric abscess — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.3 Pyeloureteritis cystica — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.80 Unspecified pyelonephritis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.81 Pyelitis or pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49. Code first underlying disease: 016.0, 039.8, 095.8, 116.0)
590.82 Pyelitis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.83 Pyelonephritis (may not be included in underlying code) — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.84 Pyelitis or pyelonephritis without lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.85 Pyelitis with lesion of renal medullary necrosis — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.86 Pyelonephritis (may not be included in underlying code) — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.87 Pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.88 Pyelonephritis in diseases classified elsewhere — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
590.9 Unspecified infection of kidney — (Use additional code to identify organism, such as E. coli, 041.41-041.49)
595.0 Acute cystitis — (Use additional code to identify organism, such as E. coli: 041.41-041.49)

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</table>

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87197

87197  Serum bactericidal titer (Schlichter test)

**Explanation**

This procedure is called a serum cidal level, a serum bactericidal titer, or a Schlichter test. This test cannot be performed without a bacterial organism that has been previously isolated from the same patient. The killing power of the patient's serum against the isolated pathogen is measured. Blood is usually drawn and tested at peak and trough level of the antibiotic.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
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</thead>
<tbody>
<tr>
<td>041.5</td>
<td>Hemophilus influenzae (H. influenzae) infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
</tr>
<tr>
<td>421.0</td>
<td>Acute and subacute bacterial endocarditis — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>730.02</td>
<td>Acute osteomyelitis, upper arm — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)</td>
</tr>
<tr>
<td>730.04</td>
<td>Acute osteomyelitis, hand — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)</td>
</tr>
<tr>
<td>730.05</td>
<td>Acute osteomyelitis, pelvic region and thigh — (Use additional code to identify organism: 041.1. Use additional code to identify major osseous defect, if applicable: 731.3)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87205

**Smear, primary source with interpretation; Gram or Giemsa stain for bacteria, fungi, or cell types**

**Explanation**
Any smear done on a primary source (e.g., sputum, CSF, etc.) to identify bacteria, fungi, and cell types. An interpretation of findings is provided. Bacteria, fungi, WBCs, and epithelial cells may be estimated in quantity with an interpretation as to the possibility of contamination by normal flora. A gram stain may be the most commonly performed smear of this type.

**Coding Tips**
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
- **Shigellosis**: Infection by the rod-shaped, nonmotile, gram-negative bacteria of the genus Shigella, from the family Enterobacteriaceae. Known to cause an acute dysenteric infection of the bowel with fever, drowsiness, anorexia, nausea, vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected individuals is the most common source of infection. Incubation period is one to four days. There are four species in the Shigella genus, and they differ according to their biochemical reactions. All cause dysentery in humans and some primates. Shigellosis is reported with ICD-9-CM code 004.0. A suspected Shigella carrier is reported with ICD-9-CM code V02.3.
- **Tuberculosis**: Chronic variable disease caused by bacteria usually spread by inhalation of an airborne agent.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>001.0</td>
<td>Cholera due to Vibrio cholerae</td>
</tr>
<tr>
<td>001.1</td>
<td>Cholera due to Vibrio cholerae el tor</td>
</tr>
<tr>
<td>001.9</td>
<td>Unspecified cholera</td>
</tr>
<tr>
<td>003.0</td>
<td>Salmonella gastroenteritis</td>
</tr>
<tr>
<td>003.1</td>
<td>Salmonella septicemia</td>
</tr>
<tr>
<td>003.20</td>
<td>Unspecified localized salmonella infection</td>
</tr>
<tr>
<td>003.21</td>
<td>Salmonella meningitis</td>
</tr>
<tr>
<td>003.22</td>
<td>Salmonella pneumonia</td>
</tr>
<tr>
<td>003.23</td>
<td>Salmonella arthritis</td>
</tr>
<tr>
<td>003.24</td>
<td>Salmonella osteomyelitis</td>
</tr>
<tr>
<td>003.29</td>
<td>Other localized salmonella infections</td>
</tr>
<tr>
<td>003.8</td>
<td>Other specified salmonella infections</td>
</tr>
<tr>
<td>003.9</td>
<td>Unspecified salmonella infection</td>
</tr>
<tr>
<td>004.0</td>
<td>Shigella dysenteriae</td>
</tr>
<tr>
<td>004.1</td>
<td>Shigella flexneri</td>
</tr>
<tr>
<td>004.2</td>
<td>Shigella boydii</td>
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<tr>
<td>004.3</td>
<td>Shigella sonnei</td>
</tr>
<tr>
<td>004.8</td>
<td>Other specified shigella infections</td>
</tr>
<tr>
<td>004.9</td>
<td>Unspecified shigellosis</td>
</tr>
</tbody>
</table>

**CCI Version 20.0**
80500-80502, 88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Smear, primary source with interpretation; fluorescent and/or acid fast stain for bacteria, fungi, parasites, viruses or cell types

special stain for inclusion bodies or parasites (e.g., malaria, coccidia, microsporidia, trypanosomes, herpes viruses)

**Explanation**

A fluorescent or acid-fast stain for bacteria, fungi, parasites, viruses, or cell types. These are stains usually for specific groups of organisms (e.g., mycobacterium and Nocardia). Identification of Cryptosporidium and related parasites are examples of parasites that can be identified by fluorescent or acid fast stain. An interpretation is included. Code 87207 is a stain to look for inclusion bodies or parasites (e.g., malaria inside red cells). Its use to detect herpes has been outdated by amplification and immunological methods. An interpretation is included.

**Coding Tips**

To report direct smears with concentration and identification, consult CPT code 87177. A written interpretation is included with these codes. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**ICD-9-CM Diagnostic Codes**

- 052.0 Postvaricella encephalitis
- 053.0 Herpes zoster with meningitis
- 053.10 Herpes zoster with unspecified nervous system complication
- 053.11 Geniculate herpes zoster
- 053.12 Postherpetic trigeminal neuralgia
- 053.13 Postherpetic polyneuropathy
- 053.20 Herpes zoster dermatitis of eyelid
- 053.21 Herpes zoster keratoconjunctivitis
- 053.22 Herpes zoster iridocyclitis
- 053.29 Other ophthalmic herpes zoster complications
- 053.71 Otitis externa due to herpes zoster
- 053.79 Other specified herpes zoster complications
- 054.0 Eczema herpeticum
- 054.11 Herpetic vulvovaginitis
- 054.12 Herpetic ulceration of vulva
- 054.13 Herpetic infection of penis
- 054.2 Herpetic gingivostomatitis
- 054.3 Herpetic meningoencephalitis
- 054.41 Herpes simplex dermatitis of eyelid
- 054.43 Herpes simplex disciform keratitis
- 054.44 Herpes simplex iridocyclitis
- 054.5 Herpetic septicemia
- 054.6 Herpetic whitlow
- 054.71 Visceral herpes simplex
- 054.72 Herpes simplex meningitis
- 054.73 Herpes simplex otitis externa

- 054.9 Herpes simplex without mention of complication
- 084.0 Falciparum malaria (malignant tertian)
- 084.1 Vivax malaria (benign tertian)
- 084.2 Quartan malaria
- 084.3 Oval malaria
- 084.5 Mixed malaria
- 084.7 Induced malaria
- 084.8 Blackwater fever
- 085.0 Visceral leishmaniasis (kala-azar)
- 085.1 Cutaneous leishmaniasis, urban
- 085.2 Cutaneous leishmaniasis, Asian desert
- 085.3 Cutaneous leishmaniasis, Ethiopian
- 085.4 Cutaneous leishmaniasis, American
- 085.5 Mucocutaneous leishmaniasis, (American
- 086.0 Chagas' disease with heart involvement — (Use additional code to identify manifestations: 321.3, 323.2)
- 086.1 Chagas' disease with other organ involvement — (Use additional code to identify manifestations: 321.3, 323.2)
- 086.3 Gambian trypanosomiasis — (Use additional code to identify manifestations: 321.3, 323.2)
- 086.4 Rhodesian trypanosomiasis — (Use additional code to identify manifestations: 321.3, 323.2)
- 086.5 African trypanosomiasis, unspecified — (Use additional code to identify manifestations: 321.3, 323.2)
- 125.0 Bancroftian filariasis
- 125.1 Malayan filariasis
- 125.2 Loiasis
- 125.5 Mansonella ozzardi infection

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502, 87177, 88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Smear, primary source with interpretation; complex special stain (eg, trichrome, iron hematoxylin) for ova and parasites

Explanation
This is a stain to look for the inclusion of trichome or iron hematoxylin indicating the presence of parasites or their eggs. An interpretation is included.

Coding Tips
This code is for special stains performed on fecal specimens submitted for ova and parasite exam only. Report iron and trichrome stains on tissue sections or blocks with CPT code 88313.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>084.0</td>
<td>Falciparum malaria (malignant tertian)</td>
</tr>
<tr>
<td>084.1</td>
<td>Vivax malaria (benign tertian)</td>
</tr>
<tr>
<td>084.2</td>
<td>Quartan malaria</td>
</tr>
<tr>
<td>084.3</td>
<td>Ovale malaria</td>
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<tr>
<td>084.4</td>
<td>Other malaria</td>
</tr>
<tr>
<td>084.5</td>
<td>Mixed malaria</td>
</tr>
<tr>
<td>084.6</td>
<td>Unspecified malaria</td>
</tr>
<tr>
<td>084.7</td>
<td>Induced malaria</td>
</tr>
<tr>
<td>084.8</td>
<td>Blackwater fever</td>
</tr>
<tr>
<td>084.9</td>
<td>Other pernicious complications of malaria — (Use additional code to identify complication: 573.2, 581.81)</td>
</tr>
<tr>
<td>085.0</td>
<td>Visceral leishmaniasis (kala-azar)</td>
</tr>
<tr>
<td>085.1</td>
<td>Cutaneous leishmaniasis, urban</td>
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<tr>
<td>085.2</td>
<td>Cutaneous leishmaniasis, Asian desert</td>
</tr>
<tr>
<td>085.3</td>
<td>Cutaneous leishmaniasis, Ethiopian</td>
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<td>085.4</td>
<td>Cutaneous leishmaniasis, American</td>
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<td>Mucocutaneous leishmaniasis, (American)</td>
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<td>085.9</td>
<td>Unspecified leishmaniasis</td>
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<td>086.0</td>
<td>Chagas' disease with heart involvement — (Use additional code to identify manifestations: 321.3, 323.2)</td>
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<td>086.1</td>
<td>Chagas' disease with other organ involvement — (Use additional code to identify manifestations: 321.3, 323.2)</td>
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<tr>
<td>086.3</td>
<td>Gambian trypanosomiasis — (Use additional code to identify manifestations: 321.3, 323.2)</td>
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<td>Rhodesian trypanosomiasis — (Use additional code to identify manifestations: 321.3, 323.2)</td>
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<td>086.5</td>
<td>African trypanosomiasis, unspecified — (Use additional code to identify manifestations: 321.3, 323.2)</td>
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<td>086.9</td>
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<tr>
<td>125.0</td>
<td>Bancroftian filariasis</td>
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<td>Malayan filariasis</td>
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<td>125.2</td>
<td>Loiasis</td>
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<td>125.3</td>
<td>Onchocerciasis</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 87207, 88387-88388
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
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<th>Work Value</th>
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</tbody>
</table>
Smear, primary source with interpretation; wet mount for infectious agents (eg, saline, India ink, KOH preps)

**Explanation**
This test may be requested as a KOH prep. A wet mount is prepared from a primary source to detect bacteria, fungi, or ova and parasites. Motility of organisms is visible on wet mounts and the addition of a simple stain, such as iodine, India ink, or simple dyes, may aid detection of bacteria, fungi, and parasites. An interpretation of findings is included.

**Coding Tips**
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. To report KOH exam of skin, hair or nails, consult CPT code 87220. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

KOH. Potassium hydroxide.

**ICD-9-CM Diagnostic Codes**
003.1 Salmonella septicemia
003.21 Salmonella meningitis
110.2 Dermatophytosis of hand — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.3 Dermatophytosis of groin and perianal area — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.4 Dermatophytosis of foot — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
110.5 Dermatophytosis of the body — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.2 Candidiasis of other urogenital sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.3 Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.82 Candidal otitis externa — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.84 Candidiasis of the esophagus — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

<table>
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<th>Work Value</th>
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CPT 87210

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-4,16,70.8

**CCI Version 20.0**
80500-80502, 87177, 88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87220

87220  Tissue examination by KOH slide of samples from skin, hair, or nails for fungi or ectoparasite ova or mites (eg, scabies)

**Explanation**
Potassium hydroxide (KOH) prep and calcofluor stains are the most common methods of looking for hyphal elements and/or yeast in tissue. The KOH causes a clearing of the specimen to make fungus more visible. The preparation is enhanced for microscopic observation by adding a drop of calcofluor, a type of fluorescent dye, to the slide and reading the preparation with a fluorescent microscope.

**Coding Tips**
To report wet mount for infectious agents consult CPT code 87210.

**Terms To Know**
candidiasis. Yeast infection caused by the fungus Candida albicans. It commonly occurs in the vagina, but affects any moist skin or mucus membrane. Report candidiasis with a code from ICD-9-CM category 112.
coccidioidomycosis. Condition where fungus invades the body producing fever and pulmonary difficulties.
dermatophytosis. Superficial parasitic fungal infections occurring in the skin, hair, or nails that involve the corneal stratum, or outermost layer of cells, commonly referring to ringworm and athlete's foot. See ICD-9-CM category 110 for correct code assignment based upon anatomical site.
histoplasmosis. Infection resulting from inhalation of fungal spores, causing acute pneumonia, an influenza-like illness, or a disseminated disease of the reticuloendothelial system. In immunocompromised patients it can reactivate, affecting the lungs, meninges, heart, peritoneum, and adrenals.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
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<td>Dermatophytosis of scalp and beard — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.1</td>
<td>Dermatophytosis of nail — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.2</td>
<td>Dermatophytosis of hand — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>110.4</td>
<td>Dermatophytosis of foot — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>111.1</td>
<td>Tinea nigra — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<tr>
<td>111.2</td>
<td>Tinea blanca — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<tr>
<td>111.3</td>
<td>Black piedra — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<tr>
<td>112.3</td>
<td>Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<tr>
<td>115.90</td>
<td>Unspecified Histoplasmosis without mention of manifestation</td>
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<tr>
<td>116.2</td>
<td>Lobomycosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.3</td>
<td>Aspergillosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.4</td>
<td>Mycotic mycetomas — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.5</td>
<td>Cryptococcosis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.7</td>
<td>Zygomycosis (Phycomycosis or Mucormycosis) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
<tr>
<td>117.8</td>
<td>Infection by dematiaceous fungi (Phaeohyphomycosis) — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
80500-80502, 87177, 88387-88388
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Toxin or antitoxin assay, tissue culture (eg, Clostridium difficile toxin)

Explanation
This procedure is a toxin assay for diagnosis of toxin producing organisms, such as Clostridium difficile, E. coli 0157, enterotoxigenic E. coli, and Vibrio cholerae. Stool is collected for testing. Filtrates of the stool are inoculated into cell cultures and observed for CPE (cytopathic effect) microscopically. Confirmation of toxin production may be done by toxin neutralization. Different cell cultures are used to test for different toxins, so organism must be specified.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
Clostridium perfringens/difficile. Gram-positive, spore forming, obligate anaerobic bacteria from the family bacillaceae. Pathogenic species have the ability to produce deadly exotoxins or enzymes. C. perfringens is the most common cause of gas gangrene in humans. Toxin A from C. perfringens is associated with gas gangrene and nercrotizing colitis while type C toxin causes enteritis necroticans. C. difficile is often encountered in patients on antibiotic therapy as it is normally found in the colon as part of the normal flora and it colonizes in the intestine as other beneficial bacteria die off and the balance is offset. C. difficile is found to produce Toxin A and B that cause enterocolitis. C. difficile is also a prevalent form of nosocomial or hospital-acquired infection. Diagnosis is usually made by identifying toxin in the stool or by enzyme immunoassay.

Escherichia coli. Gram negative, anaerobic of the family Enterobacteriaceae found in the large intestine of warm-blooded animals, generally as a non-pathologic entity aiding in digestion. They become pathogenic when an opportunity to grow somewhere outside this relationship presents itself, such as ingestion of fecal contaminated food or water. The species coli (ICD-9-CM category 008) is the principle organism found in the human intestine and has both pathogenic and nonpathogenic strains. The enterotoxigenic form causes cholera-like illness while the enteroinvasive form causes dysentery by invading the epithelial cells of the human colon. Bloody stools are seen with the enterohemorrhagic strain. A relatively new strain of E. coli has been identified as E. coli O157:H7, found in undercooked beef and unpasteurized apple juice. Shiga toxin-producing Escherichia coli is assigned to ICD-9-CM category 041.

Vibrio cholerae. Acute infection of the entire bowel due to vibrio cholerae. Genus of gram negative, anaerobic, rod-shaped, mobile bacteria divided into six serogroups. It presents with profuse diarrhea, cramps, and vomiting. The rice water diarrhea produced by the cholera enterotoxin results in severe dehydration, electrolyte imbalance, and death. It is spread through ingestion of food or water contaminated with feces of infected persons and is still prevalent in countries with poor socioeconomic conditions. Cholera is the acute infectious enteritis caused by this class of bacteria, reported with ICD-9-CM codes 001.0-001.9; suspected carrier, V02.0; exposure to or contact with, V01.0; and prophylactic vaccination against, V03.0. Until recently cholera has only been diagnosed with bacterial stool culture or other advanced scientific method, rarely available in the prevalent area of disease. Recently a dipstick method (CPT code 87450) has become available for early detection.

Synonym(s): cholera.

ICD-9-CM Diagnostic Codes
008.45 Intestinal infections due to clostridium difficile

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**Explanation**

Embryonated egg or small animal inoculation with specimen source is used in the diagnosis of some viruses. There are different specimen types for the different viruses. Contact the reference lab that is performing the test for type of specimen and transport. There are, however, more rapid tests to diagnosis for most viral infections. This code includes observation for signs of illness in inoculated mice for as long as three weeks and dissection of mice and preparation of tissue for microscopy to confirm diagnosis when mice become ill or die.

**Coding Tips**

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

**Laboratory.** Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**Specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

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**CCI Version 20.0**

88387-88388

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Virus isolation; tissue culture inoculation, observation, and presumptive identification by cytopathic effect

tissue culture, additional studies or definitive identification (eg, hemadsorption, neutralization, immunofluorescence stain), each isolate

centrifuge enhanced (shell vial) technique, includes identification with immunofluorescence stain, each virus

Explanation
Cell culture is a procedure used particularly for viral detection. There is a general viral culture which can detect most viruses, but when a specific agent is suspected such as CMV, HSV, Influenza A or B, mumps, or varicella zoster, more specific and rapid culture techniques can be used. Code 87252 provides presumptive identification by cytopathic effect only. Specimens may be collected by swab, washings and fluids, and blood draw. Code 87253 reports additional tissue culture studies required for specific virus identification and is reported for each isolate. Code 87254 may also be ordered as a shell vial (SV) culture, a rapid shell assay, or an immediate early antigen test. Specimen collection is by separately reportable appropriate procedure. Shell vial isolation cultures offer more immediate results (often 48-hours) than conventional cultures. The technique is particularly useful in identification of respiratory organisms. Immunofluorescence is a technique in which antibody reacts with an antigen on a fixed slide. The antibody in turn reacts with antihuman globulins for the diagnosis of infectious diseases. The fluorescence is best viewed with a laser-scanning confocal microscope.

Coding Tips
To report electron microscopy, consult CPT code 88348. To report inclusion bodies in tissue sections, consult CPT codes 88304-88309; in smears, consult CPT codes 87207-87210; in fluids, consult CPT code 88106. Report CPT code 87254 in addition to CPT code 87252 as appropriate. According to instructions in the CPT book, identification by colony morphology, growth on a selective media, gram stains or up to three of the following: catalase, oxidase, indole, and/or urease testing all define presumptive testing.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
008.61 Intestinal infection, enteritis due to rotavirus
008.62 Intestinal infection, enteritis due to adenovirus
008.63 Intestinal infection, enteritis due to Norwalk virus
047.1 Meningitis due to ECHO virus
053.0 Herpes zoster with meningitis
053.10 Herpes zoster with unspecified nervous system complication
053.11 Geniculate herpes zoster

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Infectious agent antigen detection by immunofluorescent technique; Chlamydia trachomatis

Explanation
This test may be requested as Chlamydia trachomatis or C. trachomatis by DFA or by immunofluorescence. C. trachomatis is a frequently occurring sexually transmitted disease. It may cause nonspecific urethritis or pelvic inflammatory disease (PID), although it is frequently asymptomatic in women. Another serotype also causes conjunctivitis. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

ICD-9-CM Diagnostic Codes
099.40 Unsppescribed nongonococcal urethritis (NGU)
099.41 Nongonococcal urethritis (NGU) due to Chlamydia trachomatis
099.49 Nongonococcal urethritis (NGU) due to other specified organism
099.50 Chlamydia trachomatis infection of unspecified site
099.51 Chlamydia trachomatis infection of pharynx
099.52 Chlamydia trachomatis infection of anus and rectum
099.53 Chlamydia trachomatis infection of lower genitourinary sites — (Use additional code to specify site of infection: 595.4, 616.0, 616.11)
099.54 Chlamydia trachomatis infection of other genitourinary sites — (Use additional code to specify site of infection: 604.91, 614.9)
099.55 Chlamydia trachomatis infection of unspecified genitourinary site
099.56 Chlamydia trachomatis infection of peritoneum
099.59 Chlamydia trachomatis infection of other specified site

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

CCI Version 20.0
80500-80502, 87320, 87490-87492, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by immunofluorescent technique; Cytomegalovirus, direct fluorescent antibody (DFA)

Explanation
A cytomegalovirus is detected by direct fluorescent antibody (DFA) staining technique. The presence of the infectious agent microorganism is detected indirectly when the fluorescent reaction of the dye is seen under a special microscope. The cytomegalovirus is isolated in cell culture for the test. Specimens include throat swabs, CSF, and blood samples. A cytomegalovirus is any virus in the Betaherpesvirinae subfamily.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
CMV, Cytomegalovirus.

ICD-9-CM Diagnostic Codes
078.5 Cytomegaloviral disease — (Use additional code to identify manifestation: 484.1, 573.1)
771.1 Congenital cytomegalovirus infection — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by immunofluorescent technique; cryptosporidium

Explanation
This procedure may be referred to as a direct fluorescent antibody (DFA) or immunofluorescent stain for cryptosporidium. This parasite infects the gastrointestinal tract causing symptoms such as diarrhea, weight loss, fever, and abdominal pain. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
cryptosporidiosis. Infection by tiny coccidian protozoa usually seen in young farm animals and parasitic in the intestinal tract of many vertebrate animals. In humans, it causes self-limiting diarrhea that may require rehydration in the very young, pregnant, or very old. In immunosuppressed patients, the diarrhea becomes intractable. It is contracted via a fecal-oral transmission route from ingestion of unfiltered water, and mainly affects those who are immunocompromised or have had exposure to cattle. Cryptosporidiosis is reported with ICD-9-CM code 007.4.

ICD-9-CM Diagnostic Codes
007.4 Cryptosporidiosis
009.0 Infectious colitis, enteritis, and gastroenteritis
009.1 Colitis, enteritis, and gastroenteritis of presumed infectious origin
009.2 Infectious diarrhea
009.3 Diarrhea of presumed infectious origin
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Infectious agent antigen detection by immunofluorescent technique; Herpes simplex virus type 2

Explanation
This test may be requested as HSV 2 by DFA or HSV 2 by immunofluorescence. HSV 2 is a sexually transmitted disease with lesions occurring primarily in the genitourinary tract. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 8660-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
herpes. Inflammatory diseases of the skin caused by the herpes virus.

ICD-9-CM Diagnostic Codes
054.10 Unspecified genital herpes
054.11 Herpetic vulvovaginitis
054.12 Herpetic ulceration of vulva
054.13 Herpetic infection of penis
054.19 Other genital herpes

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 87206, 87528-87530Φ, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by immunofluorescent technique; Herpes simplex virus type 1

Explanation
This test may be requested as HSV 1 by DFA or HSV 1 by immunofluorescence. HSV 1 is primarily responsible for oral lesions frequently referred to as fever blisters or cold sores. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

ICD-9-CM Diagnostic Codes
054.0 Eczema herpeticum
054.2 Herpetic gingivostomatitis
054.3 Herpetic meningoencephalitis
054.40 Unspecified ophthalmic complication herpes simplex
054.41 Herpes simplex dermatitis of eyelid
054.42 Dendritic keratitis
054.43 Herpes simplex disciform keratitis
054.44 Herpes simplex iridocyclitis
054.49 Herpes simplex with other ophthalmic complications
054.5 Herpetic septicemia
054.6 Herpetic whitlow
054.71 Visceral herpes simplex
054.72 Herpes simplex meningitis
054.73 Herpes simplex otitis externa
054.74 Herpes simplex myelitis
054.79 Other specified herpes simplex complications
054.8 Unspecified herpes simplex complication
054.9 Herpes simplex without mention of complication

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87275
Infectious agent antigen detection by immunofluorescent technique; influenza B virus

Explanation
This test may be requested as influenza B (less common strain) by DFA or by immunofluorescence. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

ICD-9-CM Diagnostic Codes
465.8 Acute upper respiratory infections of other multiple sites — (Use additional code to identify infectious organism)
465.9 Acute upper respiratory infections of unspecified site — (Use additional code to identify infectious organism)
487.0 Influenza with pneumonia — (Use additional code to identify infectious organism. Use additional code to identify type of pneumonia: 480.0-480.9, 481, 482.0-492.9, 483.0-483.8, 485)
487.1 Influenza with other respiratory manifestations — (Use additional code to identify infectious organism)
487.8 Influenza with other manifestations — (Use additional code to identify infectious organism)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 87206, 87400*, 87804*, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**87276**

**87276**  Infectious agent antigen detection by immunofluorescent technique; influenza A virus

**Explanation**

This test may be requested as influenza A (most common strain) by DFA or by immunofluorescence. The causative agent is subject to wide variation in antigenic type. This is referred to as antigen shift and causes new variations of the Type A virus to appear at two to three year intervals. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

**Coding Tips**

This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

**ICD-9-CM Diagnostic Codes**

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502, 87206, 87400, 87804, 88346-88347

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87277
87277  Infectious agent antigen detection by immunofluorescent technique; Legionella micdadei

Explanation
This procedure may be requested as Legionella micdadei by direct fluorescent antibody (DFA) stain or by immunofluorescence. L. micdadei is the second most commonly isolated member of Legionella. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves nonculture (primary source) detection of infected cells using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique. For DFA procedure it is acceptable to prepare and send two air-dried smears. This method may be a rapid diagnosis, but is not as accurate as cultured tests.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
Legionnaire’s disease. Infection caused by the microorganism Legionella pneumophila, transmitted by inhalation of the bacteria, not person to person. The bacteria reside and grow in damp, enclosed areas such as air conditioners, humidifiers, and shower heads. This is a kind of pneumonia with high fever, gastrointestinal pain, headache, muscle aches, and dry cough. This disease is reported with ICD-9-CM code 482.84.

ICD-9-CM Diagnostic Codes
482.84  Legionnaires’ disease
482.89  Pneumonia due to other specified bacteria — (Use additional code to identify infectious organism)
482.9  Unspecified bacterial pneumonia — (Use additional code to identify infectious organism)
485  Bronchopneumonia, organism unspecified
486  Pneumonia, organism unspecified

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Infectious agent antigen detection by immunofluorescent technique; Legionella pneumophila

Explanation
This procedure may be requested as Legionella pneumophila by direct fluorescent antibody (DFA) stain or by immunofluorescence. L. pneumophila is the bacterium associated with Legionnaires’ disease and Pontiac fever. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves nonculture (primary source) detection of infected cells using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique. For DFA procedure it is acceptable to prepare and send two air-dried smears. This method may be a rapid diagnosis, but is not as accurate as cultured tests.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87540, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
Legionnaire's disease. Infection caused by the microorganism Legionella pneumophilia, transmitted by inhalation of the bacteria, not person to person. The bacteria reside and grow in damp, enclosed areas such as air conditioners, humidifiers, and shower heads. This is a kind of pneumonia with high fever, gastrointestinal pain, headache, muscle aches, and dry cough. This disease is reported with ICD-9-CM code 482.84.

ICD-9-CM Diagnostic Codes

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<td>482.9</td>
<td>Unspecified bacterial pneumonia — (Use additional code to identify infectious organism)</td>
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Infectious agent antigen detection by immunofluorescent technique; Parainfluenza virus, each type

**Explanation**
This test may be requested as parainfluenza virus by DFA or by immunofluorescence. Parainfluenza is a group of viruses that cause upper respiratory infections that are often the causative agents in croup, bronchitis and bronchiolitis. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

**Coding Tips**
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

**ICD-9-CM Diagnostic Codes**

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<td>Acute bronchitis — (Use additional code to identify infectious organism)</td>
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<td>Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)</td>
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<td>Pneumonia due to parainfluenza virus</td>
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87280
87280 Infectious agent antigen detection by immunofluorescent technique; respiratory syncytial virus

Explanation
This test may be requested as DFA or immunofluorescent stain for respiratory syncytial virus (RSV). RSV causes respiratory disease that can be particularly severe in infants. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
RSV. Respiratory syncytial virus.

ICD-9-CM Diagnostic Codes
079.6 Respiratory syncytial virus (RSV) — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
465.8 Acute upper respiratory infections of other multiple sites — (Use additional code to identify infectious organism)
465.9 Acute upper respiratory infections of unspecified site — (Use additional code to identify infectious organism)
466.0 Acute bronchitis — (Use additional code to identify infectious organism)
466.11 Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)
466.19 Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)
480.1 Pneumonia due to respiratory syncytial virus

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0
80500-80502, 87206, 87420, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent antigen detection by immunofluorescent technique; Pneumocystis carinii

Explanation
This test may be requested as pneumocystis carinii or PCP by DFA or by immunofluorescence. Pneumocystis carinii causes lung infection or pneumonia in premature infants, cancer patients, patients being treated with immunosuppressive medications for the management of organ transplantation or cancer, and AIDS patients. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, code 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

ICD-9-CM Diagnostic Codes
136.3  Pneumocystosis
482.89  Pneumonia due to other specified bacteria — (Use additional code to identify infectious organism)
482.9  Unspecified bacterial pneumonia — (Use additional code to identify infectious organism)
483.8  Pneumonia due to other specified organism — (Use additional code to identify infectious organism)

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 87206, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87283

Infectious agent antigen detection by immunofluorescent technique; Rubeola

Explanation
This test may be requested as rubeola stain or rubeola IFA. Rubeola, more commonly referred to as measles, is characterized by fever, coryza, cough, and conjunctivitis after which Koplik's spots appear in the mouth with pharyngitis and inflammation of the laryngeal and tracheobronchial mucosa. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
measles. Highly contagious, acute airborne viral disease manifested by fever, small red spots, and flu-like symptoms. Measles is primarily a disease of childhood.

ICD-9-CM Diagnostic Codes

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<td>Measles keratoconjunctivitis</td>
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<td>Other specified measles complications</td>
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Infectious agent antigen detection by immunofluorescent technique; Treponema pallidum

Explanation
The spirochete Treponema pallidum is the causative agent of syphilis. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier 59 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86604. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
syphilis. Sexually transmitted disease caused by the treponema pallidum spirochete. Syphilis usually exhibits cutaneous manifestations and may exist for years without symptoms. Newborns may contract it via the placenta.

ICD-9-CM Diagnostic Codes
090.0 Early congenital syphilis, symptomatic
090.1 Early congenital syphilis, latent
090.2 Unspecified early congenital syphilis
090.3 Syphilitic interstitial keratitis
090.40 Unspecified juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.41 Congenital syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
090.42 Congenital syphilitic meningitis — (Use additional code to identify any associated mental disorder)
090.49 Other juvenile neurosyphilis — (Use additional code to identify any associated mental disorder)
090.5 Other late congenital syphilis, symptomatic
090.6 Late congenital syphilis, latent
090.7 Late congenital syphilis, unspecified
090.9 Congenital syphilis, unspecified
091.0 Genital syphilis (primary)

091.1 Primary anal syphilis
091.2 Other primary syphilis
091.3 Secondary syphilis of skin or mucous membranes
091.4 Adenopathy due to secondary syphilis
091.50 Early syphilis, syphilitic uveitis, unspecified
091.51 Early syphilis, syphilitic chorioretinitis (secondary)
091.52 Early syphilis, syphilitic iridocyclitis (secondary)
091.61 Early syphilis, secondary syphilitic periostitis
091.62 Early syphilis, secondary syphilitic hepatitis
091.69 Early syphilis, secondary syphilis of other viscera
091.7 Early syphilis, secondary syphilis, relapse
091.81 Early syphilis, acute syphilitic meningitis (secondary)
091.82 Early syphilis, syphilitic alopecia
091.89 Early syphilis, other forms of secondary syphilis
091.9 Early syphilis, unspecified secondary syphilis
092.0 Early syphilis, latent, serological relapse after treatment
092.9 Early syphilis, latent, unspecified
093.0 Aneurysm of aorta, specified as syphilitic
093.1 Syphilitic aortitis
093.21 Syphilitic endocarditis, mitral valve
093.22 Syphilitic endocarditis, aortic valve
093.23 Syphilitic endocarditis, tricuspid valve
093.24 Syphilitic endocarditis, pulmonary valve
093.81 Syphilitic pericarditis
093.82 Syphilitic myocarditis
093.89 Other specified cardiovascular syphilis
093.9 Unspecified cardiovascular syphilis
V01.6 Contact with or exposure to venereal diseases
V02.8 Carrier or suspected carrier of other venereal diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 88346-88347
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87290
87290 Infectious agent antigen detection by immunofluorescent technique; Varicella zoster virus

Explanation
This test may be requested as direct fluorescent stain for varicella zoster virus. This is the causative agent of chickenpox. Infectious agent antigen detection by immunofluorescence includes direct and indirect fluorescent antibody technique and involves using monoclonal antibodies and immunofluorescence microscopy. Cellular material must be obtained from the site for immunofluorescence to be an effective diagnostic technique. This test has a high specificity, but sensitivity is dependent on adequacy of the sample collected. A negative sample should be cultured.

Coding Tips
This code describes infectious agent antigen detection on primary source specimens, NOT organisms recovered from culture. Consult CPT codes 87140-87158. Report infectious agent antigen detection using specific organism and methodology codes (immunofluorescence, nucleic acid, enzyme immunoassay, or immunoassay with direct optical observation). Where there is no specific agent code, report a general methodology code. General methodology codes in this series are CPT codes 87299, 87449, 87450, 87797, 87798, 87799, and 87899. When testing is repeated for multiple strains or species of an organism, separately code each result reported. Some payers may require that modifier S9 be appended to additional studies. For infectious agent antibody testing on primary source specimens, consult CPT codes from range 86602-86804. When testing infectious agents recovered from culture, see CPT code series 87140-87158.

Terms To Know
chickenpox. Highly contagious infection by the varicella-zoster virus causing a rash of very pruritic pustules breaking out over the body and accompanied by fever. Complications may include pneumonia, cerebral edema, and bacterial skin infections. This disease is preventable with the varicella vaccination. Report chickenpox with a code from ICD-9-CM rubric 052.

ICD-9-CM Diagnostic Codes
052.0 Postvaricella encephalitis
052.1 Varicella (hemorrhagic) pneumonitis
052.7 Chickenpox with other specified complications
052.8 Chickenpox with unspecified complication
052.9 Varicella without mention of complication
053.0 Herpes zoster with meningitis
053.10 Herpes zoster with unspecified nervous system complication
053.11 Geniculate herpes zoster
053.12 Postherpetic trigeminal neuralgia
053.13 Postherpetic polyneuropathy
053.19 Other herpes zoster with nervous system complications
053.20 Herpes zoster dermatitis of eyelid

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Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Chlamydia trachomatis

**Explanation**
This test may be requested as Chlamydia trachomatis or C. trachomatis by enzyme immunoassay (EIA). C. trachomatis is a frequently occurring sexually transmitted disease. It may cause nonspecific urethritis or pelvic inflammatory disease (PID), although it is frequently asymptomatic in women. Another serotype also causes conjunctivitis. Enzyme immunoassay refers to a technique that utilizes a chemical bond between an enzyme and an antigen or antibody as a label to identify specific chemical or infectious agents. Special reagents and equipment are required for C. trachomatis EIA. Sensitivity of EIA is approximately 75 to 85 percent.

**Coding Tips**
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
*chlamydia trachomatis.* Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter's syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.

**ICD-9-CM Diagnostic Codes**

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<td>Nongonococcal urethritis (NGU) due to other specified organism</td>
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<td>099.50</td>
<td>Chlamydia trachomatis infection of unspecified site</td>
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<td>Chlamydia trachomatis infection of pharynx</td>
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<td>Chlamydia trachomatis infection of anus and rectum</td>
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**CCI Version 20.0**

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

**Coding and Payment Guide for Laboratory Services**

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Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Clostridium difficile toxin(s)

Explanation
This test may be requested as enzyme immunoassay (EIA) for the detection of Clostridium difficile toxin or more simply referred to as a C. difficile toxin test. A random stool sample is obtained. Fresh stool should be kept refrigerated and transported in clean leak proof container.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
clostridium perfringens/difficile. Gram-positive, spore forming, obligate anaerobic bacteria from the family bacillaceae. Pathogenic species have the ability to produce deadly exotoxins or enzymes. C. perfringens is the most common cause of gas gangrene in humans. Toxin A from C. perfringens is associated with gas gangrene and necrotizing colitis while type C toxin causes enteritis necroticans. C. difficile is often encountered in patients on antibiotic therapy as it is normally found in the colon as part of the normal flora and it colonizes in the intestine as other beneficial bacteria die off and the balance is offset. C. difficile is found to produce Toxin A and B that cause enterocolitis. C. difficile is also a prevalent form of nosocomial or hospital-acquired infection. Diagnosis is usually made by identifying toxin in the stool or by enzyme immunoassay.

ICD-9-CM Diagnostic Codes
008.45  Intestinal infections due to clostridium difficile
009.0  Infectious colitis, enteritis, and gastroenteritis
009.1  Colitis, enteritis, and gastroenteritis of presumed infectious origin
009.2  Infectious diarrhea
009.3  Diarrhea of presumed infectious origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
87206, 87803, 88346-88347

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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**87328**

**Explanation**

This procedure is for the detection of cryptosporidium by EIA (Enzyme Immunoassay). This parasite infects the gastrointestinal tract causing symptoms such as diarrhea, weight loss, fever, and abdominal pain. A random stool sample is obtained. Transport fresh or preserved stool in clean leak proof container.

**Coding Tips**

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

**cryptosporidiosis.** Infection by tiny coccidian protozoa usually seen in young farm animals and parasitic in the intestinal tract of many vertebrate animals. In humans, it causes self-limiting diarrhea that may require rehydration in the very young, pregnant, or very old. In immunosuppressed patients, the diarrhea becomes intractable. It is contracted via a fecal-oral transmission route from ingestion of unfiltered water, and mainly affects those who are immunocompromised or have had exposure to cattle. Cryptosporidiosis is reported with ICD-9-CM code 007.4.

**ICD-9-CM Diagnostic Codes**

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<td>Cryptosporidiosis</td>
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<tr>
<td>009.0</td>
<td>Infectious colitis, enteritis, and gastroenteritis</td>
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<td>009.1</td>
<td>Colitis, enteritis, and gastroenteritis of presumed infectious origin</td>
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<td>009.2</td>
<td>Infectious diarrhea</td>
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<tr>
<td>009.3</td>
<td>Diarrhea of presumed infectious origin</td>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

87206, 88347

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; giardia

**Explanation**

This procedure is for the qualitative or semiquantitative detection of Giardia lamblia by EIA (Enzyme Immunoassay). The Giardia lamblia parasite causes severe diarrhea, cramps, and stomach-ache, and can lead to weight loss and dehydration. Contamination occurs in soil, food, water, or surfaces in contact with infected feces. Giardia is a very common cause of waterborne disease in humans in the United States. The specimen is a random stool specimen. This test may be requested as cytomegalovirus (CMV) by enzyme immunoassay (EIA). CMV is part of the viral family that includes herpes zoster, Epstein-Barr, and Varicella zoster infections. CMV usually causes only mild symptoms except in fetal infection or immunosuppressed patients, including AIDS and transplant patients. Blood specimen is serum. EIA is often used in conjunction with culture.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*giardiasis. Infection by the flagellate protozoan Giardia lamblia causing gastrointestinal problems such as vomiting, chronic diarrhea, and weight loss in humans and other vertebrates. The cyst stage of the parasite is usually ingested through contaminated water. Once in the stomach, the cyst opens and the trophozoite moves into the small intestines and latches on. Report with ICD-9-CM code 007.1 or ICD-10-CM code A07.1. Diagnosis is confirmed by running an enzyme immunoassay for G. lamblia, reported with CPT code 86674.*

**ICD-9-CM Diagnostic Codes**

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<td>Giardiasis</td>
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<td>Infectious colitis, enteritis, and gastroenteritis</td>
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<td>Colitis, enteritis, and gastroenteritis of presumed infectious origin</td>
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<td>009.2</td>
<td>Infectious diarrhea</td>
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<td>009.3</td>
<td>Diarrhea of presumed infectious origin</td>
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<tr>
<td>787.03</td>
<td>Vomiting alone</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

87206, 88346-88347

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; cytomegalovirus

Explanation
This test may be requested as cytomegalovirus (CMV) by enzyme immunoassay (EIA). CMV is part of the viral family that includes herpes zoster, Epstein-Barr, and Varicella zoster infections. CMV usually causes only mild symptoms except in fetal infection or immunosuppressed patients, including AIDS and transplant patients. Blood specimen is obtained by venipuncture. Enzyme immunoassay refers to a technique that utilizes a chemical bond between an enzyme and an antigen or antibody as a label to identify specific chemical or infectious agents. EIA is often used in conjunction with culture.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
CMV. Cytomegalovirus.

ICD-9-CM Diagnostic Codes
078.5       Cytomegaloviral disease — (Use additional code to identify manifestation: 484.1, 573.1)
771.1       Congenital cytomegalovirus infection — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
87271Φ, 87495-87497Φ
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Escherichia coli 0157

Explanation
This test may be requested enzyme immunoassay (EIA) for the detection of *Escherichia coli* (E. coli) 0157. *E. coli* 0157 is the causative agent of hemorrhagic colitis in food borne epidemics. A random stool sample is obtained. Stool or rectal swabs may be transported in Carey-Blair transport media. Fresh stool can be sent in clean leak proof container, but if transport time exceeds two hours the specimen should be frozen at -70 C.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
*Escherichia coli*. Gram negative, anaerobic of the family *Enterobacteriaceae* found in the large intestine of warm-blooded animals, generally as a non-pathologic entity aiding in digestion. They become pathogenic when an opportunity to grow somewhere outside this relationship presents itself, such as ingestion of fecal contaminated food or water. The species *coli* (ICD-9-CM category 008) is the principle organism found in the human intestine and has both pathogenic and nonpathogenic strains. The enterotoxigenic form causes cholera-like illness while the enteroinvasive form causes dysentery by invading the epithelial cells of the human colon. Bloody stools are seen with the enterohemorrhagic strain. A relatively new strain of *E. coli* has been identified as *E. coli* O157:H7, found in undercooked beef and unpasteurized apple juice. Shiga toxin-producing *Escherichia coli* is assigned to ICD-9-CM category 041.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
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<td>008.00</td>
<td>Intestinal infection due to unspecified E. coli</td>
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<td>008.01</td>
<td>Intestinal infection due to enteropathogenic E. coli</td>
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<td>008.02</td>
<td>Intestinal infection due to enterotoxigenic E. coli</td>
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<td>Intestinal infection due to enteroinvasive E. coli</td>
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<td>008.04</td>
<td>Intestinal infection due to enterohemorrhagic E. coli</td>
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<td>008.09</td>
<td>Intestinal infection due to other intestinal E. coli infections</td>
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<td>009.0</td>
<td>Infectious colitis, enteiris, and gastroenteritis</td>
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<td>Colitis, enteiris, and gastroenteritis of presumed infectious origin</td>
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<tr>
<td>009.2</td>
<td>Infectious diarrhea</td>
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<tr>
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<td>Diarrhea of presumed infectious origin</td>
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<td>038.42</td>
<td>Septicemia due to Escherichia coli (E. coli) — (Use additional code for systemic inflammatory response syndrome (SIRS): 995.91-995.92)</td>
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<tr>
<td>041.41</td>
<td>Shiga toxin-producing Escherichia coli (E. coli) (STEC) O157 infection in conditions classified elsewhere and of unspecified site</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Entamoeba histolytica dispar group

Entamoeba histolytica group

Explanation
Code 87336 may be requested as enzyme immunoassay (EIA) for the detection of Entamoeba histolytica dispar group. E histolytica is an enteric protozoan that exists in trophozoite or cyst form. Code 87337 may be ordered as an H. pylori antibody titer, stool. Specimen collection is from a stool sample, particularly drawn from mucous in the specimen. Method is multiple step, qualitative or semiquantitative, enzyme immunoassay (EIA) or enzyme-linked immunosorbent assay (ELISA). H. pylori may be found along the gastric mucosa and on the mucosal cells of the GI tract and its presence is linked to several serious disorders of the stomach. Three to six stool examinations are recommended, each permanently stained using a trichrome stained for both studies.

Coding Tips
Biopsies may be obtained by separately reportable open or endoscopic procedure. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
amebiasis. Infection with a single cell protozoan known as the amoeba. Transmission occurs through ingestion of feces, contaminated food or water, use of human feces as fertilizer, or person-to-person contact. Entamoeba is a genus of naked ameboid protozoan organisms that are parasitic in vertebrates including humans. Entamoeba histolytica is the only species with the potential to produce human amebiasis, classified to ICD-9-CM category 006. Amoebae in the active feeding stage of their life cycle feed on the lining of the intestine, causing ulcers and destroying it. They may invade the blood vessels of the large intestines and subsequently spread to the liver (006.3), brain (006.5), lung (006.4), and skin (006.6). If the protozoal intestinal disease is caused by amebiasis other than E. histolytica, report 007.8. Diagnosis is made by demonstrating the presence of cysts or trophozoites in stool, see CPT code 87177.

ICD-9-CM Diagnostic Codes
006.0 Acute amebic dysentery without mention of abscess
006.1 Chronic intestinal amebiasis without mention of abscess
006.3 Amebic liver abscess
006.5 Amebic brain abscess
006.9 Unspecified amebiasis
007.8 Other specified protozoal intestinal diseases
572.0 Abscess of liver

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0
No CCI Edits apply to this code.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Helicobacter pylori, stool

**Explanation**

Code 87338 may be ordered as an *H. pylori* antibody titer, stool. Specimen collection is from a stool sample, particularly drawn from mucous in the specimen. Method is multiple step, qualitative or semiquantitative, enzyme immunoassay (EIA) or enzyme-linked immunosorbent assay (ELISA). *H. pylori* may be found along the gastric mucosa and on the mucosal cells of the GI tract and its presence is linked to several serious disorders of the stomach. Code 87339 may be ordered as an *H. pylori* antibody titer. Method is multiple step, qualitative or semiquantitative, enzyme immunoassay (EIA) or enzyme-linked immunosorbent assay (ELISA). Sample other than stool is required. *H. pylori* may be found along the gastric mucosa and on the mucosal cells of the GI tract and its presence is linked to several serious disorders of the stomach.

**Coding Tips**

To report *H. pylori*, breath and blood by mass spectrometry, consult CPT codes 83013, 83014. To report *H. pylori*, liquid scintillation counter, consult CPT code 78267 or 78268.

**Terms To Know**

**Helicobacter pylori.** Bacteria found to be a causal agent in gastritis and pyloric ulcers, known to be associated with gastric cancer. It is easily treatable with antibiotics. Tests for *H. pylori* include a simple breath test analysis, blood or stool sample analysis, or a combination of both, reported with CPT codes 83009, 83013-83014, and 87338-87339. ICD-9-CM code 041.86 or ICD-10-CM code B96.81 for *H. pylori* infection should be reported in addition to the code for the ulcer.

**ICD-9-CM Diagnostic Codes**

041.86  *Helicobacter pylori* [H. pylori] infection — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

78268*, 83013*

Also not with 87338: 87206, 88346-88347

Also not with 87339: 87338*

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; hepatitis B surface antigen (HBsAg) neutralization

**Explanation**

Code 87340 may be requested as HBsAg by enzyme immunoassay (EIA). Hepatitis B is a retrovirus that can cause persistent infection leading to cirrhosis and hepatocellular carcinoma. HBsAg is a lipoprotein that coats the surface of the hepatitis B virus. Blood specimen is serum. Code 87341 may be requested as HBsAg by enzyme immunoassay (EIA) confirmation. This assay is performed only when a specimen is repeatedly reactive for Hepatitis B surface antigen. Elevated HBsAg levels beyond 6 months may indicate a chronic carrier (i.e., chronic hepatitis). The HBsAg neutralization test is performed to identify false positives. False positives on a standard HBsAg test will not neutralize with anti-HBs in the confirmatory assay. Hepatitis B is a retrovirus that can cause persistent infection leading to cirrhosis and hepatocellular carcinoma. HBsAg is a lipoprotein that coats the surface of the hepatitis B virus. Blood specimen is serum.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*antigen.* Substance inducing sensitivity or triggering an immune response and the production of antibodies.

**ICD-9-CM Diagnostic Codes**

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<th>Description</th>
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<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
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<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
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<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
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<tr>
<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
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**ICD-9-CM Diagnostic Codes**

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<td>070.33</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

**CCI Version 20.0**

No CCI Edits apply to this code.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; hepatitis Be antigen (HBeAg)

Explanation
This test may be requested as HBeAg by enzyme immunoassay (EIA). Hepatitis B is a retrovirus that can cause persistent infection leading to cirrhosis and hepatocellular carcinoma. HBeAg is normally tested only on individuals who are chronically HBsAg positive. Blood specimen is serum.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
qualitative. To determine the nature of the component of substance.

ICD-9-CM Diagnostic Codes

<table>
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<th>Code</th>
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<td>070.21</td>
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<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
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<td>070.42</td>
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<td>070.59</td>
<td>Other specified viral hepatitis without mention of hepatic coma</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; hepatitis, delta agent

**Explanation**

This test may be requested as hepatitis delta agent (HDAg) by enzyme immunoassay (EIA). Hepatitis delta agent is normally tested only on individuals who are chronically HBsAg positive or have an exacerbation of their hepatitis as HDAg requires the presence of HBsAg to become an infectious virus. Blood specimen is serum.

**Coding Tips**

Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

**Hepatitis D (delta).** Hepatitis D virus (HDV) occurs only in the presence of hepatitis B virus.

**ICD-9-CM Diagnostic Codes**

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>070.20</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<tr>
<td>070.21</td>
<td>Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta</td>
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<tr>
<td>070.22</td>
<td>Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta</td>
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<tr>
<td>070.23</td>
<td>Viral hepatitis B with hepatic coma, chronic, with hepatitis delta</td>
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<td>070.30</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta</td>
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<td>070.31</td>
<td>Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta</td>
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<td>070.32</td>
<td>Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta</td>
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<td>Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta</td>
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<tr>
<td>070.42</td>
<td>Hepatitis delta without mention of active hepatitis B disease with hepatic coma</td>
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<td>070.49</td>
<td>Other specified viral hepatitis with hepatic coma</td>
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<tr>
<td>070.52</td>
<td>Hepatitis delta without mention of active hepatitis B disease or hepatic coma</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Histoplasma capsulatum

Explanation
This test may be requested as Histoplasma capsulatum by enzyme immunoassay (EIA). Histoplasma capsulatum infection results from inhalation or ingestion of spores and is common in the Midwestern United States. It is usually asymptomatic, but on occasion causes acute pneumonia, disseminated reticuloendothelial hyperplasia with hepatosplenomegaly and anemia, or influenza-like symptoms with joint effusion and erythema nodosum. Reactivated infection is common in immunocompromised individuals affecting lungs, meninges, heart, peritoneum and adrenal glands. Blood specimen is serum.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
Histoplasmosis. Infection resulting from inhalation of fungal spores, causing acute pneumonia, an influenza-like illness, or a disseminated disease of the reticuloendothelial system. In immunocompromised patients it can reactivate, affecting the lungs, meninges, heart, peritoneum, and adrenals.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
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<tr>
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<td>115.00</td>
<td>Histoplasma capsulatum, without mention of manifestation</td>
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<td>Histoplasma capsulatum retinitis</td>
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<td>Histoplasma capsulatum pericarditis</td>
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<td>Histoplasma capsulatum endocarditis</td>
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<td>115.05</td>
<td>Histoplasma capsulatum pneumonia</td>
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<td>Histoplasma capsulatum, with mention of other manifestation</td>
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<td>484.7</td>
<td>Pneumonia in other systemic mycoses — (Use additional code to identify infectious organism. Code first underlying disease)</td>
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<tr>
<td>484.8</td>
<td>Pneumonia in other infectious diseases classified elsewhere — (Code first underlying disease: 002.0, 083.0)</td>
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CCI Version 20.0
No CCI Edits apply to this code.
87389-87391 - NCD

**87389**  Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; HIV-1 antigen(s), with HIV-1 and HIV-2 antibodies, single result

**87390**  HIV-1

**87391**  HIV-2

**Explanation**

It may be requested as human immunodeficiency virus type 1 (HIV-1) and type 2 (HIV-2) by EIA. HIV-1 is the causative agent of acquired immunodeficiency syndrome (AIDS). HIV-2 is a retrovirus closely related to simian AIDS and is found initially in West African nations and Portugal, but cases have been reported in the United States since 1987. Code 87390 may be requested as human immunodeficiency virus Type 1 (HIV-1) by EIA. HIV-1 is the causative agent of acquired immunodeficiency syndrome (AIDS). Blood specimen is obtained by venipuncture. Enzyme immunoassay refers to a technique that utilizes a chemical bond between an enzyme and an antigen or antibody as a label to identify specific chemical or infectious agents. If EIA is positive, it is repeated. Code 87391 may be requested as human immunodeficiency virus Type 2 (HIV-2) by EIA. HIV-2 is a retrovirus closely related to simian AIDS and found initially in West African nations and Portugal, but cases also being reported in the United States since 1987. Blood specimen is serum for all studies. If EIA is positive, it is repeated. Two out of three tests must be positive before the test is reported as positive. All positive EIA tests are reported separately.

**Coding Tips**

A national coverage determination (NCD) applies to codes 87390 and 87391. See the Medicare National Coverage Determinations Manual, Pub. 100-02, chapter 6, section 10. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work applicable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work applicable.

**ICD-9-CM Diagnostic Codes**

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<td>Primary tuberculous complex, confirmation unspecified</td>
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<td>010.01</td>
<td>Primary tuberculous complex, bacteriological or histological examination not done</td>
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<td>010.02</td>
<td>Primary tuberculous complex, bacteriological or histological examination unknown (at present)</td>
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**ICD-10-CM**

- **010.03**: Primary tuberculous complex, tubercle bacilli found (in sputum) by microscopy
- **010.04**: Primary tuberculous complex, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
- **010.05**: Primary tuberculous complex, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
- **010.06**: Primary tuberculous complex, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]
- **010.11**: Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination not done
- **010.12**: Tuberculous pleurisy in primary progressive tuberculosis, bacteriological or histological examination results unknown (at present)
- **010.13**: Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli found (in sputum) by microscopy
- **010.14**: Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
- **010.15**: Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically
- **010.16**: Tuberculous pleurisy in primary progressive tuberculosis, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]
- **042**: Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
- **079.53**: Human immunodeficiency virus, type 2 (HIV 2), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
- **V01.79**: Contact or exposure to other viral diseases
Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Influenza, A or B, each

**Explanation**
This test may be requested as Influenza A EIA or Influenza B EIA. Blood specimen is serum. Other specimens may be collected by separately reportable procedures. Influenza A and B are a genus of the virus that causes the acute respiratory illness known as influenza. The designation is based on antigenic testing. Testing may occur during the acute phase of illness and again 10 to 14 days after onset of symptoms.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **qualitative**: To determine the nature of the component of substance.
- **specimen**: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
- 487.0 Influenza with pneumonia — (Use additional code to identify infectious organism. Use additional code to identify type of pneumonia: 480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485)
- 487.1 Influenza with other respiratory manifestations — (Use additional code to identify infectious organism)
- 487.8 Influenza with other manifestations — (Use additional code to identify infectious organism)
- 488.01 Influenza due to identified avian influenza virus with pneumonia — (Use additional code to identify the type of pneumonia (480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485))
- 488.02 Influenza due to identified avian influenza virus with other respiratory manifestations
- 488.09 Influenza due to identified avian influenza virus with other manifestations
- 488.11 Influenza due to identified 2009 H1N1 influenza virus with pneumonia — (Use additional code to identify the type of pneumonia (480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485))
- 488.12 Influenza due to identified 2009 H1N1 influenza virus with other respiratory manifestations
- 488.19 Influenza due to identified 2009 H1N1 influenza virus with other manifestations

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Work Value</th>
<th>Non-Fac PE</th>
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Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; respiratory syncytial virus

Explanation
This test may be requested as respiratory syncytial virus (RSV) by enzyme immunoassay (EIA). RSV causes respiratory disease that can be particularly severe in infants. Blood specimen is serum.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
antigen. Substance inducing sensitivity or triggering an immune response and the production of antibodies.
qualitative. To determine the nature of the component of substance.
RSV. Respiratory syncytial virus.

ICD-9-CM Diagnostic Codes
079.6 Respiratory syncytial virus (RSV) — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
465.8 Acute upper respiratory infections of other multiple sites — (Use additional code to identify infectious organism)
465.9 Acute upper respiratory infections of unspecified site — (Use additional code to identify infectious organism)
466.0 Acute bronchitis — (Use additional code to identify infectious organism)
466.11 Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)
466.19 Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)
480.1 Pneumonia due to respiratory syncytial virus
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**87425**

87425  Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; rotavirus

**Explanation**
This test may be requested as rotavirus by enzyme immunoassay (EIA). Rotavirus sometimes causes severe infectious gastroenteritis in infants and young children. Adults may contract a milder infection. Blood specimen is serum.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **qualitative**: To determine the nature of the component of substance.
- **rotavirus**: Genus of viruses having a wheel-like shape belonging to the family Reoviridae. This is an RNA virus with six separate serotypes, only three of which-A, B, and C-cause disease in humans, namely acute, severe gastroenteritis and diarrhea in infants and young children. Transmission is fecal-oral route. Rotavirus infection is reported with ICD-9-CM code 008.61.

**ICD-9-CM Diagnostic Codes**
- 008.61 Intestinal infection, enteritis due to rotavirus
- 009.0 Infectious colitis, enteritis, and gastroenteritis
- 009.1 Colitis, enteritis, and gastroenteritis of presumed infectious origin
- 009.2 Infectious diarrhea
- 009.3 Diarrhea of presumed infectious origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

87206

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent antigen detection by enzyme immunoassay technique, qualitative or semiquantitative, multiple-step method; Shiga-like toxin

**Explanation**
This test may be ordered as a Shigella Type 1 by EIA or S. dysenteriae test by EIA. Blood specimen is serum. Shigella is an enteric pathogen known for its ability to produce protein toxins that cause acute gut inflammation and dysentery. Serology tests are usually conducted during the acute phase of illness.

**Coding Tips**
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Category 004 includes bacillary dysentery.

**Terms To Know**
- **antigen**: Substance inducing sensitivity or triggering an immune response and the production of antibodies.
- **qualitative**: To determine the nature of the component of substance.
- **shigellosis**: Infection by the rod-shaped, nonmotile, gram-negative bacteria of the genus Shigella, from the family Enterobacteriaceae. Known to cause an acute dysentery infection of the bowel with fever, drowsiness, anorexia, nausea, vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected individuals is the most common source of infection. Incubation period is one to four days. There are four species in the Shigella genus, and they differ according to their biochemical reactions. All cause dysentery in humans and some primates. Shigellosis is reported with ICD-9-CM code 004.0. A suspected Shigella carrier is reported with ICD-9-CM code V02.3.

**ICD-9-CM Diagnostic Codes**
- 004.0  Shigella dysenteriae
- 004.1  Shigella flexneri
- 004.2  Shigella boydii
- 004.3  Shigella sonnei
- 004.8  Other specified shigella infections
- 004.9  Unspecified shigellosis
- 009.0  Infectious colitis, enteritis, and gastroenteritis
- 009.1  Colitis, enteritis, and gastroenteritis of presumed infectious origin
- 009.2  Infectious diarrhea

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009.3  Diarrhea of presumed infectious origin
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.
**Explanation**

These codes report enzyme immunoassay (EIA) of infectious agents that are not specifically identified elsewhere. Code 87449 reports testing for a single organism using a multiple step method; 87450 reports testing for a single organism using a single step method; and 87451 reports testing for multiple organisms using a multiple step method and a polyvalent antiserum. The term polyvalent when used in reference to microbiology denotes an antibody molecule with multiple antigen binding sites.

**Coding Tips**

Code 87449 represents a test that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

*antigen.* Substance inducing sensitivity or triggering an immune response and the production of antibodies.

*CLIA.* Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

*qualitative.* To determine the nature of the component of substance.

**ICD-9-CM Diagnostic Codes**

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.
**Explanation**

Code 87475 may be requested as DNA direct probe for Lyme disease. Code 87476 may be requested as DNA amplified probe for Lyme disease. Code 87477 may be requested as Lyme disease quantification using DNA. *Borrelia burgdorferi* is bacteria transmitted by tick bite and the causative agent of Lyme disease, acrodermatitis chronica atrophicans, and erythema chronicum migrans. Blood specimen is serum. CSF requires a spinal puncture, which is reported separately. Synovial fluid is obtained by arthrocentesis and is reported separately. A random urine specimen is obtained. DNA from spirochete *Borrelia burgdorferi* is analyzed using direct probe technique.

**Coding Tips**

Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. If CSF is obtained report spinal puncture separately using code 62270. Arthrocentesis to obtain synovial fluid is reported using the appropriate code from the musculoskeletal subsection of the CPT code book.

**Terms To Know**

*Lyme disease*. Acute inflammatory disease caused by a tick bite.

**ICD-9-CM Diagnostic Codes**

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<td>729.1</td>
<td>Unspecified myalgia and myositis</td>
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<td>780.60</td>
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<td>785.6</td>
<td>Enlargement of lymph nodes</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

<table>
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Infectious agent detection by nucleic acid (DNA or RNA); Candida species, direct probe technique

Candida species, amplified probe technique

Candida species, quantification

Explanation
These tests are used to diagnose an infection by any species of Candida, but usually C. albicans and would normally be performed to diagnosis systemic (invasive) candidiasis. Blood is serum. For code 87840 the specimen is treated to isolate nucleic acid (DNA, RNA). Nucleic acid is analyzed using direct probe technique. Code 87481 the specimen is treated to isolate the nucleic acid (DNA, RNA) and eliminate substances that inhibit amplification. The nucleic acid is amplified using specific primers for Candida sequences. Code 87482 reports quantification only and is used primarily to assess extent of disease or disease progression.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know
candidiasis. Yeast infection caused by the fungus Candida albicans. It commonly occurs in the vagina, but affects any moist skin or mucus membrane. Report candidiasis with a code from ICD-9-CM category 112.
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
112.0 Candidiasis of mouth — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.2 Candidiasis of other urogenital sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.3 Candidiasis of skin and nails — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.4 Candidiasis of lung — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.5 Disseminated candidiasis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.81 Candidal endocarditis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.82 Candidal otitis externa — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.83 Candidal meningitis — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.84 Candidiasis of the esophagus — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.85 Candidiasis of the intestine — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.89 Other candidiasis of other specified sites — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
112.9 Candidiasis of unspecified site — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
771.7 Neonatal Candida infection — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408
Also not with 87480: 87449, 87481-87482
Also not with 87481: 87482
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent detection by nucleic acid (DNA or RNA); Chlamydia pneumoniae, direct probe technique

Chlamydia pneumoniae, amplified probe technique

Chlamydia pneumoniae, quantification

Explanation
Chlamydia pneumoniae causes both upper and lower respiratory tract infections and is a causative agent in many community acquired pneumonia. Blood is serum. Sputum may be obtained by deep coughing or aerosol induced technique. Code 87485 requires that the specimen be treated to isolate nucleic acid (DNA, RNA). Nucleic acid is analyzed using direct probe technique. For code 87486 the DNA is amplified using a technique such as polymerase chain reaction (PCR). Code 84787 reports quantification only and is used primarily to assess extent of disease or disease progression.

Coding Tips
For Chlamydia trachomatis infectious agent detection by nucleic acid, consult CPT codes 87490-87492. Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Pneumonia and influenza are inflammations in the alveolar parenchyma of the lung caused by microbial infection, irradiation, or physicochemical agents. Microbial agents include viral, bacterial, fungal, protozoal, mycobacterial, mycoplasmal, or rickettsial pathogens. Physicochemical agents may be inhaled or reach the lung via the bloodstream. Inhaled agents include toxic gases, irritant particles, or irritant fluids such as gastric juice.

Terms To Know
chlamydia trachomatis. Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter’s syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.

DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

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**87490-87492**

87490  Infectious agent detection by nucleic acid (DNA or RNA); Chlamydia trachomatis, direct probe technique

87491  Chlamydia trachomatis, amplified probe technique

87492  Chlamydia trachomatis, quantification

**Explanation**

C. trachomatis is a frequently occurring sexually transmitted disease. It may cause nonspecific urethritis or pelvic inflammatory disease (PID), frequently asymptomatic in women. Another serotype also causes conjunctivitis. Code 87490 requires that the specimen is treated to isolate the DNA using direct probe and may be requested as Chlamydia trachomatis or C. trachomatis by direct DNA probe. In code 87491 the DNA is amplified using a technique such as polymerase chain reaction (PCR). It may be requested as Chlamydia trachomatis or C. trachomatis by polymerase chain reaction. Code 87492 reports quantification only. This test may be requested as Chlamydia trachomatis or C. trachomatis DNA quantification.

**Coding Tips**

Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). To report Chlamydia pneumoniae infectious agent detection by nucleic acid, consult CPT codes 87485-87487.

**Terms To Know**

- **chlamydia trachomatis.** Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter’s syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.

- **DNA.** Deoxyribonucleic acid.

- **RNA.** Ribonucleic acid.

**ICD-9-CM Diagnostic Codes**

- 099.41 Nongonococcal urethritis (NGU) due to Chlamydia trachomatis
- 099.49 Nongonococcal urethritis (NGU) due to other specified organism
- 099.50 Chlamydia trachomatis infection of unspecified site
- 099.51 Chlamydia trachomatis infection of pharynx
- 099.52 Chlamydia trachomatis infection of anus and rectum
- 099.53 Chlamydia trachomatis infection of lower genitourinary sites — (Use additional code to specify site of infection: 593.4, 616.0, 616.11)
- 099.54 Chlamydia trachomatis infection of other genitourinary sites — (Use additional code to specify site of infection: 604.91, 614.9)
- 099.55 Chlamydia trachomatis infection of unspecified genitourinary site
- 099.56 Chlamydia trachomatis infection of peritoneum
- 099.59 Chlamydia trachomatis infection of other specified site

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

**CCI Version 20.0**

80500-80502, 81400-81408

Also not with 87490: 87206, 87491-87492

Also not with 87491: 87492

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent detection by nucleic acid (DNA or RNA); Clostridium difficile, toxin gene(s), amplified probe technique

Explanation
This code reports infectious agent detection by nucleic acid (DNA, RNA) amplified probe for clostridium difficile toxin B (tcdB). This test is used to diagnose patients whose symptoms include persistent non-bloody diarrhea, decreased appetite, abdominal discomfort, and elevated temperature following antibiotic therapy. Nucleic acid detection, also referred to as molecular pathology, is a rapidly developing diagnostic technique that is especially useful in identifying microorganisms that require tedious isolation and incubation and/or those which cannot be cultured. Another advantage of molecular methods is that they are able to detect infectious agents at much lower levels than required using other techniques. Amplified probe involves isolating and identifying the infectious agent DNA or RNA. This involves cell lysis and extraction of the DNA using phenol or chloroform. The nucleic acids are amplified using one of several techniques. Polymerase chain reaction (PCR) is the most frequently used amplification technique.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
clostridium perfringens/difficile. Gram-positive, spore forming, obligate anaerobic bacteria from the family bacillaceae. Pathogenic species have the ability to produce deadly exotoxins or enzymes. C. perfringens is the most common cause of gas gangrene in humans. Toxin A from C. perfringens is associated with gas gangrene and necrotizing colitis while type C toxin causes enteritis necroticans. C. difficile is often encountered in patients on antibiotic therapy as it is normally found in the colon as part of the normal flora and it colonizes in the intestine as other beneficial bacteria die off and the balance is offset. C. difficile is found to produce Toxin A and B that cause enterocolitis. C. difficile is also a prevalent form of nosocomial or hospital-acquired infection. Diagnosis is usually made by identifying toxin in the stool or by enzyme immunoassay.
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
008.45     Intestinal infections due to clostridium difficile
558.9     Other and unspecified noninfectious gastroenteritis and colitis
780.60     Fever, unspecified
780.61     Fever presenting with conditions classified elsewhere — (Code first underlying condition when associated fever is present: 204-208, 282.60-282.69, 288.00-288.09)
787.02     Nausea alone

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CCI Version 20.0
80500-80502, 81400-81408, 87149, 87324, 87803
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Explanation
CMV is part of the viral family that includes herpes zoster, Epstein-Barr, and varicella zoster infections. CMV usually causes only mild symptoms except in fetal infection or immunosuppressed patients, including AIDS and transplant patients. Code 87495 may be requested as cytomegalovirus (CMV) direct DNA probe technique. Blood specimen is serum. A random urine specimen is obtained. A separately reportable tissue biopsy is obtained. The specimen is treated to isolate the DNA using direct probe. This test may be requested as cytomegalovirus (CMV) by polymerase chain reaction (PCR). Code 87496 requires that the DNA is amplified using a technique such as polymerase chain reaction (PCR). Code 87497 reports quantification only and is usually performed following amplification that is reported separately.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

Terms To Know

cytomegalovirus. Herpes virus that infects directly through mucous membrane contact, tissue transplant, or blood transfusion, producing enlarged, infected cells containing inclusion bodies.
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.
varicella-zoster. Contagious viral infection causing rash with pustules and fever. This condition is reported with ICD-9-CM codes 052.0-052.9. Synonym(s): chickenpox.

ICD-9-CM Diagnostic Codes

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<td>052.0</td>
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<td>Varicella (hemorrhagic) pneumonitis</td>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87498

87498  Infectious agent detection by nucleic acid (DNA or RNA); enterovirus, amplified probe technique, includes reverse transcription when performed

Explanation
This test may be requested as enterovirus by polymerase chain reaction (PCR). Detection of enterovirus nucleic acid provides a differential diagnosis of meningitis. Specimen is usually cerebrospinal fluid or throat swab. In an amplified probe technique, a small amount of DNA is manipulated using heating and cooling to reproduce the target. Because the generated DNA can also be used to replicate, the DNA is recreated exponentially. This test typically uses a real time reverse transcription polymerase (RT-RTP) chain reaction methodology in the collected clinical samples. In reverse transcription, the RNA from the organism is mapped to a single strand DNA allowing it to replicate. The test results are usually available significantly faster than viral culture results.

Coding Tips
This code has been revised for 2014 in the official CPT description. Molecular pathology procedures (81200-81408) should not be reported in combination with, or instead of, the infection agent detection by nucleic acid procedures (87470-87801). Spinal puncture for obtaining cerebrospinal fluid is separately reportable; consult CPT code 62270. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
enterovirus. Genus of viruses inhabiting the intestinal tract and belonging to the family Picornaviridae. There are many different strains of non-polio enterovirus.

ICD-9-CM Diagnostic Codes
008.67  Intestinal infection, enteritis due to enterovirus not elsewhere classified
045.00  Acute paralytic poliomyelitis specified as bulbar, unspecified poliovirus
045.01  Acute paralytic poliomyelitis specified as bulbar, poliovirus type I
045.02  Acute paralytic poliomyelitis specified as bulbar, poliovirus type II
045.03  Acute paralytic poliomyelitis specified as bulbar, poliovirus type III
045.10  Acute poliomyelitis with other paralysis, unspecified poliovirus
045.11  Acute poliomyelitis with other paralysis, poliovirus type I
045.12  Acute poliomyelitis with other paralysis, poliovirus type II
045.13  Acute poliomyelitis with other paralysis, poliovirus type III
045.20  Acute nonparalytic poliomyelitis, unspecified poliovirus
045.21  Acute nonparalytic poliomyelitis, poliovirus type I
045.22  Acute nonparalytic poliomyelitis, poliovirus type II
045.23  Acute nonparalytic poliomyelitis, poliovirus type III
045.90  Acute unspecified poliomyelitis, unspecified poliovirus
045.91  Acute unspecified poliomyelitis, poliovirus type I
045.92  Acute unspecified poliomyelitis, poliovirus type II
045.93  Acute unspecified poliomyelitis, poliovirus type III
047.0  Meningitis due to coxsackie virus
047.1  Meningitis due to ECHO virus
047.8  Other specified viral meningitis
047.9  Unspecified viral meningitis
074.0  Herpangina
074.1  Epidemic pleurodynia
074.20  Coxsackie carditis, unspecified
074.21  Coxsackie pericarditis
074.22  Coxsackie endocarditis
074.23  Coxsackie myocarditis
074.3  Hand, foot, and mouth disease
074.8  Other specified diseases due to Coxsackievirus
079.1  ECHO virus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
079.2  Coxsackievirus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
320.9  Meningitis due to unspecified bacterium
322.9  Unspecified meningitis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408, 87267

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87500

**Explanation**
Vancomycin is an antibiotic. The ability of certain microorganisms to withstand vancomycin treatment is called vancomycin resistance (VR). VR resistance is increasingly problematic in hospitals, nursing homes, and other health care facilities where vancomycin has been used as the drug of “last resort” to treat urinary tract, wound infections, and other serious disease processes resistant to other antibiotics. Testing organisms from clinical specimens with DNA amplified probe tests can identify vancomycin resistance genes, such as vanA and vanB genes of the Enterococci have a particularly high resistance to vancomycin, so other treatment options can be initiated.

**Coding Tips**
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Enterococcus are bacteria normally found in feces. There are two genera: Enterococcus faecalis and Enterococcus faecium. Enterococci commonly cause urinary tract infection but may also result in bacteremia, endocarditis, or meningitis, and also may colonize open wounds including skin ulcers. Enterococci are frequently resistant to the antibiotic vancomycin.

**Terms To Know**
Laboratory: Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

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<td>Streptococcus infection in conditions classified elsewhere and of unspecified site, group D [Enterococcus] — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
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<td>041.11</td>
<td>Methicillin susceptible Staphylococcus aureus — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)</td>
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<td>041.12</td>
<td>Methicillin resistant Staphylococcus aureus</td>
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**Coding and Payment Guide for Laboratory Services**

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</table>
Infectious agent detection by nucleic acid (DNA or RNA); influenza virus, reverse transcription and amplified probe technique, each type or subtype

Influenza virus, for multiple types or sub-types, multiplex reverse transcription and amplified probe technique, first 2 types or sub-types

Influenza virus, for multiple types or sub-types, multiplex reverse transcription and amplified probe technique, each additional influenza virus type or sub-type beyond 2 (List separately in addition to code for primary procedure)

Explanation
These codes report influenza virus infectious agent detection by nucleic acid (DNA or RNA) using reverse transcription and amplified probe technique. Nucleic acid detection, also referred to as molecular pathology, is a rapidly developing diagnostic technique that is especially useful in identifying microorganisms that require tedious isolation and incubation and/or those that cannot be cultured, and nucleic acid amplification tests are among the most sensitive and specific influenza tests. Specimen may be nasal, nasopharyngeal, or oropharyngeal swab; nasal or endotracheal aspirate; bronchoalveolar lavage (BAL); or pleural fluid. Testing for the influenza virus by amplified probe requires a molecular method referred to as reverse transcription polymerase chain reaction (RT-PCR). Report 87501 for each type or subtype and 87502 for the first two types or subtypes when testing for multiple types/subtypes. A separately reportable code (87503) is reported for each additional type or subtype beyond two.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). As an add-on code, 87503 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes.

ICD-9-CM Diagnostic Codes

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<td>487.1</td>
<td>Influenza with other respiratory manifestations — (Use additional code to identify infectious organism)</td>
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<td>487.8</td>
<td>Influenza with other manifestations — (Use additional code to identify infectious organism)</td>
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<td>488.01</td>
<td>Influenza due to identified avian influenza virus with pneumonia — (Use additional code to identify the type of pneumonia (480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485))</td>
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<td>488.02</td>
<td>Influenza due to identified avian influenza virus with other respiratory manifestations</td>
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<td>Influenza due to identified avian influenza virus with other manifestations</td>
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<td>488.11</td>
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<td>Influenza due to identified 2009 H1N1 influenza virus with other respiratory manifestations</td>
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<td>488.19</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with other manifestations</td>
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<td>Influenza due to identified novel influenza A virus with pneumonia — (Use additional code to identify the type of pneumonia: 480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485)</td>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

CCI Version 20.0
81400-81408
Also not with 87501: 80500-80502, 87149-87150, 87253, 87275-87276, 87400, 87804
Also not with 87502: 80500-80502, 87149-87150, 87253, 87275-87277, 87501, 87804
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent detection by nucleic acid (DNA or RNA): Gardnerella vaginalis, direct probe technique

Gardnerella vaginalis, amplified probe technique

Gardnerella vaginalis, quantification

Explanation
These tests may also be requested as haemophilus vaginalis. Gardnerella vaginalis is a gram-negative bacterium which causes an infection of the female genital tract producing a gray or yellow discharge. For code 87510 the specimen is treated to isolate nucleic acid (DNA, RNA). Nucleic acid is analyzed using direct probe technique. For code 87511 the nucleic acid is amplified using specific primers for Gardnerella vaginalis sequences. Code 87512 reports quantification only and is used primarily to assess extent of disease or disease progression.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. Codes from category 049 are used as an additional code to indicate the pathogen causing the infection.

Terms To Know
Infection. Presence of microorganisms in body tissues that may result in cellular damage.

Vaginosis. Condition in which there is a disturbance in the normal balance of bacteria in the vagina, causing an increase in the percentage of harmful bacteria. This is the most common vaginal infection in females of childbearing age. It may occur along with itching, burning, pain, swelling, odor, and discharge. Vaginosis is reported with ICD-9-CM code 616.10, with an additional code to identify the bacteria, if specified.

ICD-9-CM Diagnostic Codes
041.89 Infection due to other specified bacteria in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)

616.10 Unspecified vaginitis and vulvovaginitis — (Use additional code to identify organism, such as: 041.00-041.09, 041.10-041.19, 041.41-041.49)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0

80500-80502, 81400-81408
Also not with 87510: 87511-87512
Also not with 87511: 87512

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87515-87517

**Explanation**

Code 87515 may be requested as HBV DNA direct probe. The specimen is treated to isolate the DNA using direct probe. Test 87516 may be requested as HBV DNA by polymerase chain reaction (PCR). The DNA is amplified using a technique such as polymerase chain reaction (PCR). Hepatitis B is a retrovirus that can cause persistent infection leading to cirrhosis and hepatocellular carcinoma. Code 87517 reports quantification only. Quantification is used primarily to monitor response to therapy in chronic hepatitis B. Molecular (DNA) tests are useful in identifying potentially infectious individuals as well as chronic progression of the disease. Blood specimen is serum. A liver biopsy is required for analysis of liver tissue and is reported separately.

**Coding Tips**

Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance. If liver biopsy is performed report separately, consult CPT codes 47000-47001 and 47100. Hepatitis B virus (HBV) infection can be chronic and systemic. Transmission is through bodily fluids.

**Terms To Know**

*specimen.* Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

070.20 Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
070.21 Viral hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
070.22 Viral hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
070.23 Viral hepatitis B with hepatic coma, chronic, with hepatitis delta
070.30 Viral hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
070.31 Viral hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
070.32 Viral hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
070.33 Viral hepatitis B without mention of hepatic coma, chronic, with hepatitis delta

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502, 81400-81408
Also not with 87515: 87516-87517
Also not with 87516: 87517

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent detection by nucleic acid (DNA or RNA); hepatitis C, direct probe technique

87520
hepatitis C, amplified probe technique, includes reverse transcription when performed

87522
hepatitis C, quantification, includes reverse transcription when performed

Explanation
Hepatitis C is also referred to as non-A non-B (NANB) hepatitis. For 87520, the blood specimen is serum. This test may be requested as HCV RNA direct probe. A liver biopsy is required for analysis of liver tissue and is reported separately. The specimen is treated to isolate the RNA using direct probe. This test is used primarily by research facilities. For 87521 and 87522, the blood specimen is plasma or serum. This test is used to detect infectious agents using the organism’s DNA/RNA. In reverse transcription, the RNA from the organism is mapped to a single strand DNA allowing it to replicate. Report 87521 when the testing includes an amplified probe technique or reverse transcription polymerase chain reaction (RT-PCR) in which the reversely transcribed DNA is repeatedly duplicated (amplified) and detected using various methods. This test is used primarily by research facilities. Report 87522 if quantification of the RNA/DNA to monitor the effects of treatment is all that is performed.

Coding Tips
Codes 87521 and 87522 have been revised for 2014 in the official CPT description. Molecular pathology procedures (81200-81408) should not be reported in combination with, or instead of, the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. If liver biopsy is performed, report separately. Consult CPT codes 47000-47001 and 47100. Hepatitis C (HCV) infection can be chronic and systemic; transmission is through blood transfusion and unidentified agents.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
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<td>Acute hepatitis C with hepatic coma</td>
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<td>Chronic hepatitis C with hepatic coma</td>
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<td>070.49</td>
<td>Other specified viral hepatitis with hepatic coma</td>
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**Explanation**

HGV is associated with acute and chronic hepatitis and active infection has been observed to persist for up to nine years. HGV is transmissible via blood transfusion and also can be acquired by exposure to blood and blood products. Test 87525 may be requested as HGV-RNA direct probe. The specimen is treated to isolate the RNA using direct probe. This test is used primarily by research facilities. Test 87526 is used to report HGV by amplified probe requires a molecular method referred to as reverse transcription polymerase chain reaction (RT-PCR). Code 87527 may be requested as HGV RNA quantification using molecular technique and reports quantification only.

**Coding Tips**

Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. If liver biopsy is performed, report separately. Consult CPT codes 47000-47001 and 47100.

**Terms To Know**

DNA. Deoxyribonucleic acid.

RNA. Ribonucleic acid.

**ICD-9-CM Diagnostic Codes**

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<td>070.9</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502, 81400-81408

Also not with 87525: 87526-87527

Also not with 87526: 87527

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87528-87530

87528  Infectious agent detection by nucleic acid (DNA or RNA): Herpes simplex virus, direct probe technique
87529  Herpes simplex virus, amplified probe technique
87530  Herpes simplex virus, quantification

Explanation
HSV 1 is primarily responsible for oral lesions frequently referred to as fever blisters or cold sores. HSV 2 is a sexually transmitted disease with lesions occurring primarily in the genitourinary tract. Lesion swabs/scrapings are obtained. CSF is obtained by spinal puncture. Blood specimen is serum. Code 87528 may be requested as HSV by direct DNA probe. Herpes simplex may be classified as HSV type 1 (HSV 1) or HSV type 2 (HSV 2). The specimen is treated to isolate the DNA using direct probe. Detection and typing (HSV1, HSV2) by direct DNA probe is superior to culture methods. Code 87529 may be requested as HSV by amplified DNA probe. The DNA is amplified using a technique such as polymerase chain reaction (PCR). Detection and typing (HSV 1, HSV 2) by amplified DNA probe is superior to culture methods. Code 87530 may be requested as HSV quantification by molecular technique and reports quantification only.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. Spinal puncture for obtaining cerebrospinal fluid is reported separately, consult CPT code 62270.

ICD-9-CM Diagnostic Codes
054.0  Eczema herpeticum
054.10  Unspecified genital herpes
054.11  Herpetic vulvovaginitis
054.12  Herpetic ulceration of vulva
054.13  Herpetic infection of penis
054.19  Other genital herpes
054.2  Herpetic gingivostomatitis
054.3  Herpetic meningoencephalitis
054.40  Unspecified ophthalmic complication herpes simplex
054.41  Herpes simplex dermatitis of eyelid
054.42  Dendritic keratitis
054.43  Herpes simplex disciform keratitis

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87531-87533

87531  Infectious agent detection by nucleic acid (DNA or RNA); Herpes virus-6, direct probe technique
87532  Herpes virus-6, amplified probe technique
87533  Herpes virus-6, quantification

Explanation
Human herpes virus-6 is most commonly associated with roseola in children, but also causes pneumonitis, encephalitis, and hepatitis in immunosuppressed individuals. Sputum is obtained by deep coughing or by separately reportable aerosol induced technique. Respiratory fluids may also be obtained endoscopically using bronchial alveolar lavage and reported separately. CSF is obtained by spinal puncture and reported separately. Blood specimen is obtained by biopsy, also reported separately. Code 87531 may be requested as HHV-6 direct DNA probe. The cells are lysed and DNA is extracted. HHV-6 DNA is identified by direct probe. Code 87532 requires that the cells are lysed and DNA is extracted. HHV-6 DNA is amplified using specific primers. Code 87533 may be requested as HHV-6 quantification using nucleic acid technique and reports quantification only.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. To report liver biopsy, consult CPT codes 47000-47001 and 47100. To report spinal puncture for obtaining cerebrospinal fluid, consult CPT code 62270.

Terms To Know
biopsy. Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.
endoscopy. Visual inspection of the body using a fiberoptic scope. NCD Reference: 100.2.

ICD-9-CM Diagnostic Codes
049.9  Unspecified non-arthropod-borne viral disease of central nervous system
054.0  Eczema herpeticum
058.10  Roseola infantum, unspecified
058.11  Roseola infantum due to human herpesvirus 6
058.21  Human herpesvirus 6 encephalitis
058.81  Human herpesvirus 6 infection

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<td>Rash and other nonspecific skin eruption</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408
Also not with 87531: 87532-87533
Also not with 87532: 87533
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87560-87562
87560  Infectious agent detection by nucleic acid (DNA or RNA);
       Mycobacteria avium-intracellulare, direct probe technique
87561  Mycobacteria avium-intracellulare, amplified probe technique
87562  Mycobacteria avium-intracellulare, quantification

Explanation
Blood specimen is serum. A random urine sample is obtained. Sputum is obtained by deep coughing or by separately reportable aerosol induced technique. Tissue is obtained in a separately reportable biopsy procedure. DNA is isolated directly from the specimen or following culture. Code 87560 may be requested as mycobacterial avium-intracellulare direct DNA probe. The DNA probe is hybridized and the excess probe removed. The bound probe is analyzed using chemiluminescence, color detection, or autoradiography. Code 87561 may be requested as mycobacterial avium-intracellulare amplified DNA probe or mycobacterial avium-intracellulare polymerase chain reaction (PCR). DNA amplification is performed using PCR or transcription-based techniques. DNA amplification assay provides increased accuracy in diagnosis. Code 87562 may be requested as mycobacterial avium-intracellulare nucleic acid quantification and reports quantification only.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling. For culture, see codes 87116-87118. To report susceptibility studies, see code 87190.

Terms To Know
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
031.0  Pulmonary diseases due to other mycobacteria
031.2  Disseminated diseases due to other mycobacteria
465.8  Acute upper respiratory infections of other multiple sites
       — (Use additional code to identify infectious organism)
465.9  Acute upper respiratory infections of unspecified site —
       (Use additional code to identify infectious organism)
466.0  Acute bronchitis — (Use additional code to identify infectious organism)

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466.19  Acute bronchiolitis due to other infectious organisms —
        (Use additional code to identify infectious organism)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408
Also not with 87560: 87206, 87561-87562
Also not with 87561: 87562
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87580-87582

**87580**  Infectious agent detection by nucleic acid (DNA or RNA); Mycoplasma pneumoniae, direct probe technique
**87581**  Mycoplasma pneumoniae, amplified probe technique
**87582**  Mycoplasma pneumoniae, quantification

**Explanation**
Code 87580 may be requested as Mycoplasma pneumoniae nucleic acid quantification. Mycoplasma pneumoniae is responsible for anywhere from one to eight percent of all community acquired pneumonias diagnosed each year. Sputum is obtained by deep coughing or by separately reportable aerosol induced technique. Specimen may also be obtained endoscopically using bronchial alveolar lavage, reported separately. Direct nucleic acid probe is a rapid and sensitive test for Mycoplasma pneumoniae nucleic acids, specifically rRNA, in respiratory fluids. Cells must be lysed to release the Mycoplasma pneumoniae specific rRNA. Code 87581 may be requested as Mycoplasma pneumoniae amplified DNA probe. Cells in this study must also be lysed and are amplified using polymerase chain reaction (PCR). Code 87582 may be requested as Mycoplasma pneumoniae nucleic acid quantification and reports quantification only.

**Coding Tips**
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). To report separately identifiable bronchoscopic lavage, consult CPT code 31624.

**Terms To Know**
DNA. Deoxyribonucleic acid.
hemoptysis. Coughing up or spitting out blood or blood-streaked sputum, reported with ICD-9-CM codes 786.30-786.39 or ICD-10-CM codes R04.2, R04.89, or R04.9.
RNA. Ribonucleic acid.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
482.9  Unspecified bacterial pneumonia — (Use additional code to identify infectious organism)
483.0  Pneumonia due to Mycoplasma pneumoniae
486  Pneumonia, organism unspecified
786.09  Other dyspnea and respiratory abnormalities
786.2  Cough
786.30  Hemoptysis, unspecified
786.39  Other hemoptysis
786.52  Painful respiration

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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<th>Work Value</th>
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</tr>
</tbody>
</table>
Infectious agent detection by nucleic acid (DNA or RNA); Neisseria gonorrhoeae, direct probe technique

Neisseria gonorrhoeae, amplified probe technique
Neisseria gonorrhoeae, quantification

Explanation
Code 87590 may be requested as gonorrhea direct DNA probe, gonorrhea molecular probe assay, or DNA detection of gonorrhea. Neisseria gonorrhoeae is one of the most common sexually transmitted infections. Molecular (nucleic acid probe) techniques offer rapid, accurate identification of Neisseria gonorrhoeae. While a cervical or urethral swab is preferred, molecular techniques are sensitive enough to detect the organism in urine also. Neisseria gonorrhoeae can be detected by DNA, RNA, or RNA probes. Code 87591 may be requested as gonorrhea amplified DNA probe, gonorrhea molecular probe assay, or DNA detection of gonorrhea. Amplification can be performed using a number of techniques. Polymerase chain reaction (PCR) and ligase chain reaction (LCR) detect gonorrhea DNA. An assay is also available which detects gonorrhea ribosomal RNA (rRNA). Code 87592 may be requested as gonorrhoeae nucleic acid quantification and reports quantification only.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Gonococcal infections with a duration of two months or more are considered chronic.

ICD-9-CM Diagnostic Codes
098.0 Gonococcal infection (acute) of lower genitourinary tract
098.10 Gonococcal infection (acute) of upper genitourinary tract, site unspecified
098.11 Gonococcal cystitis (acute)
098.12 Gonococcal prostatitis (acute)
098.13 Gonococcal epididymo-orchitis (acute)
098.14 Gonococcal seminal vesiculitis (acute)
098.15 Gonococcal cervicitis (acute)
098.16 Gonococcal endometritis (acute)
098.17 Gonococcal salpingitis, specified as acute
098.19 Other gonococcal infections (acute) of upper genitourinary tract
098.2 Gonococcal infections, chronic, of lower genitourinary tract
098.30 Chronic gonococcal infection of upper genitourinary tract, site unspecified
098.31 Gonococcal cystitis, chronic
098.32 Gonococcal prostatitis, chronic
098.33 Gonococcal epididymo-orchitis, chronic
098.34 Gonococcal seminal vesiculitis, chronic
098.35 Gonococcal cervicitis, chronic
098.36 Gonococcal endometritis, chronic
098.37 Gonococcal salpingitis (chronic)
098.39 Other chronic gonococcal infections of upper genitourinary tract
098.40 Gonococcal conjunctivitis (neonatorum)
098.41 Gonococcal iridocyclitis
098.42 Gonococcal endophthalmitis
098.43 Gonococcal keratitis
098.49 Other gonococcal infection of eye
098.50 Gonococcal arthritis
098.51 Gonococcal synovitis and tenosynovitis
098.52 Gonococcal bursitis
098.53 Gonococcal spondylitis
098.59 Other gonococcal infection of joint
098.6 Gonococcal infection of pharynx
098.7 Gonococcal infection of anus and rectum
098.81 Gonococcal keratitis (blennorrhagica)
098.82 Gonococcal meningitis
098.83 Gonococcal pericarditis
098.84 Gonococcal endocarditis
098.85 Other gonococcal heart disease
098.86 Gonococcal peritonitis
098.89 Gonococcal infection of other specified sites

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

CCI Version 20.0
80500-80502, 81400-81408
Also not with 87590: 87206, 87449, 87591-87592
Also not with 87591: 87592
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Explanation

Human papillomaviruses are a genus of viruses that causes warts (benign neoplasms of skin and mucous membranes). There are at least 58 known types. HPV is commonly associated with both plantar and genital warts. HPV infection of the cervix is of particular concern as it may be associated with cervical cancer. The specimen is probed with commercially available DNA probes for specific HPV types. DNA probes are specific for HPV types 6, 11, 16, 18, 31, 33, and 35. Code 87620 may be requested as human papillomavirus (HPV) direct DNA probe. Code 87621 may be requested as human papillomavirus (HPV) amplified DNA probe. Human papillomaviruses are a genus of viruses that causes warts (benign neoplasms of skin and mucous membranes). The specimen is amplified by polymerase chain reaction (PCR) and probed for specific Code 87622 may be requested as human papillomavirus (HPV) amplified DNA probe and reports quantification only.

Coding Tips

Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Human papillomavirus infection results in cutaneous and genital warts, including verruca vulgaris and condyloma acuminatum. Certain types are associated with cervical dysplasia, cancer, and other genital malignancies. A code from category 079.4 should not be assigned for viral warts. See subcategory 078.1 to report that condition.

Terms To Know

HPV. Human papilloma virus. Virus of several different species transmitted by direct or indirect contact and causing plantar and genital warts on the skin and mucous membranes. HPV is most commonly associated with increased risk for cervical dysplasia and cancer in women. HPV infection is reported with ICD-9-CM code 079.4 or ICD-10-CM code B97.7. Women with atypical cervical cells may be tested for exposure to HPV virus. Positive findings for high-risk strains of HPV are reported with ICD-9-CM code 795.05 or ICD-10-CM code R87.810.

ICD-9-CM Diagnostic Codes

795.00 Abnormal glandular Papanicolaou smear of cervix
795.01 Papanicolaou smear of cervix with atypical squamous cells of undetermined significance (ASC-US)
795.02 Papanicolaou smear of cervix with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)
795.03 Papanicolaou smear of cervix with low grade squamous intraepithelial lesion (LGSIL)
795.04 Papanicolaou smear of cervix with high grade squamous intraepithelial lesion (HGSIL)
795.05 Cervical high risk human papillomavirus (HPV) DNA test positive
795.09 Other abnormal Papanicolaou smear of cervix and cervical HPV — (Use additional code for associated human papillomavirus: 079.4)
796.70 Abnormal glandular Papanicolaou smear of anus
796.71 Papanicolaou smear of anus with atypical squamous cells of undetermined significance (ASC-US)
796.72 Papanicolaou smear of anus with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)
796.73 Papanicolaou smear of anus with low grade squamous intraepithelial lesion (LGSIL)
796.74 Papanicolaou smear of anus with high grade squamous intraepithelial lesion (HGSIL)
796.75 Anal high risk human papillomavirus (HPV) DNA test positive
796.76 Papanicolaou smear of anus with cytologic evidence of malignancy
796.79 Other abnormal Papanicolaou smear of anus and anal HPV — (Use additional code for associated human papillomavirus: 079.4)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

80500-80502, 81400-81408
Also not with 87620: 87621-87622
Also not with 87621: 87622
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
ICD-9-CM Diagnostic Codes

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<th>Code</th>
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<tr>
<td>079.0</td>
<td>Adenovirus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
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<tr>
<td>460.0</td>
<td>Acute nasopharyngitis (common cold) — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>461.0</td>
<td>Acute maxillary sinusitis — (Use additional code to identify infectious organism)</td>
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</table>

Procedure Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
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<td>Infectious agent detection by nucleic acid (DNA or RNA); respiratory virus (eg, adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), multiplex reverse transcription and amplified probe technique, multiple types or subtypes, 3-5 targets</td>
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<td>87632</td>
<td>respiratory virus (eg, adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), multiplex reverse transcription and amplified probe technique, multiple types or subtypes, 6-11 targets</td>
</tr>
<tr>
<td>87633</td>
<td>respiratory virus (eg, adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), multiplex reverse transcription and amplified probe technique, multiple types or subtypes, 12-25 targets</td>
</tr>
</tbody>
</table>

Explanation

This test detects the RNA/DNA of multiple types of respiratory viruses during a single test. In reverse transcription, the RNA from the organism is mapped to a single strand DNA allowing it to replicate. The testing includes an amplified probe technique or reverse transcription polymerase chain reaction (RT-PCR) in which the reversely transcribed DNA is repeatedly duplicated (amplified) and detected using various methods. Specimen is blood. Report 87631 when three to five viruses are targeted; 87632 for six to 11 viruses; or 87633 for 12 to 25 viruses.

Coding Tips

They reflect multiple tests results from a single procedure, otherwise see codes 87800-87801. The appropriate code from the 87501-87503 range should be reported when the assay is performed to type or subtype influenza viruses. Report 87631-87633 when the assay performed includes influenza viruses with additional respiratory viruses. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring a physician or other qualified health care provider, by a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

ICD-9-CM Diagnostic Codes

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<tr>
<th>Code</th>
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<tr>
<td>465.8</td>
<td>Acute upper respiratory infections of other multiple sites — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>465.9</td>
<td>Acute upper respiratory infections of unspecified site — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>487.0</td>
<td>Influenza with pneumonia — (Use additional code to identify infectious organism. Use additional code to identify type of pneumonia: 480.0-480.9, 481, 482.0-492.9, 483.0-483.8, 485)</td>
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<tr>
<td>487.1</td>
<td>Influenza with other respiratory manifestations — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>487.8</td>
<td>Influenza with other manifestations — (Use additional code to identify infectious organism)</td>
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<tr>
<td>488.01</td>
<td>Influenza due to identified avian influenza virus with pneumonia — (Use additional code to identify the type of pneumonia (480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485))</td>
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<tr>
<td>488.02</td>
<td>Influenza due to identified avian influenza virus with other respiratory manifestations</td>
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<tr>
<td>488.09</td>
<td>Influenza due to identified avian influenza virus with other manifestations</td>
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<tr>
<td>488.11</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with pneumonia — (Use additional code to identify the type of pneumonia (480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485))</td>
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<tr>
<td>488.12</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with other respiratory manifestations</td>
</tr>
<tr>
<td>488.19</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with other manifestations</td>
</tr>
<tr>
<td>488.81</td>
<td>Influenza due to identified novel influenza A virus with pneumonia — (Use additional code to identify the type of pneumonia: 480.0-480.9, 481, 482.0-482.9, 483.0-483.8, 485)</td>
</tr>
<tr>
<td>488.82</td>
<td>Influenza due to identified novel influenza A virus with other respiratory manifestations</td>
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<tr>
<td>488.89</td>
<td>Influenza due to identified novel influenza A virus with other manifestations</td>
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</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

<table>
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<tr>
<th>Code</th>
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<td>Acute upper respiratory infections of other multiple sites</td>
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<td>87275</td>
<td>Acute upper respiratory infections of unspecified site</td>
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<tr>
<td>87276</td>
<td>Influenza with pneumonia</td>
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<tr>
<td>87279</td>
<td>Influenza with other respiratory manifestations</td>
</tr>
<tr>
<td>87301</td>
<td>Influenza with other manifestations</td>
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<td>87400</td>
<td>Influenza due to identified avian influenza virus with pneumonia</td>
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<td>87420</td>
<td>Influenza due to identified avian influenza virus with other respiratory manifestations</td>
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<tr>
<td>87501</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with pneumonia</td>
</tr>
<tr>
<td>87503</td>
<td>Influenza due to identified 2009 H1N1 influenza virus with other respiratory manifestations</td>
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<td>87505</td>
<td>Influenza due to identified novel influenza A virus with pneumonia</td>
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<td>87506</td>
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</tr>
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<td>87507</td>
<td>Influenza due to identified novel influenza A virus with other manifestations</td>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent detection by nucleic acid (DNA or RNA); Staphylococcus aureus, amplified probe technique

Staphylococcus aureus, methicillin resistant, amplified probe technique

Explanation

Code 87640 may be requested as Staphylococcus aureus by amplified probe assay. Specimen is blood or other body fluid. This test uses amplified probe assay to detect DNA or RNA sequences (usually DNA) specific for S. aureus. The specimen is treated to isolate the DNA or RNA and eliminate substances that inhibit amplification. The S. aureus DNA or RNA is amplified using specific primers. Code 87641 may be requested as MRSA by amplified probe assay. Specimen is blood or other body fluid. This test uses amplified probe assay to detect DNA or RNA sequences (usually DNA) specific for methicillin-resistant Staphylococcus aureus. The specimen is treated to isolate the DNA or RNA and eliminate substances that inhibit amplification. The MRSA DNA or RNA is amplified using specific primers. This assay establishes the presence of both S. aureus and methicillin resistance. MRSA is resistant to not only methicillin, but also common antibiotics including oxacillin, penicillin, and amoxicillin.

Coding Tips

Code 87641 should be used to report assays detecting methicillin resistance and also identifying Staphylococcus aureus using a single nucleic acid sequence. Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Codes 038.11 Methicillin resistant S. aureus (MRSA) septicemia, and 038.12 Methicillin susceptible S. aureus (MSSA) septicemia, identify the systemic form of infection (septicemia) caused by MRSA and MSSA. Use an additional code to identify from the 995.91-995.92 series if the infection has progressed to SIRS. Codes 041.11 and 041.12 identify the infectious organism as MSSA or MRSA, respectively, and are reported as an additional code to identify the bacterial agent in disease classified elsewhere. Methicillin-resistant Staphylococcus aureus is a variant form of the bacterium that is resistant to traditional beta lactam class of antibiotics such as penicillin, methicillin, and cephalosporins. Sometimes referred to as a superbug, MRSA is a major cause of hospital-acquired infections as well as community-acquired infections.

Terms To Know

MRSA. Methicillin resistant staphylococcus aureus. Bacterial infection resistant to treatment with all or most antibiotics. It is most commonly seen in inpatient situations. The infection with staphylococcus aureus is reported with ICD-9-CM code 041.12. Septicemia due to MRSA is reported with 038.12, and pneumonia due to MRSA is reported with 482.42. Report MRSA colonization with V02.54 and personal history with code V12.04.

ICD-9-CM Diagnostic Codes

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<tr>
<td>041.12</td>
<td>Methicillin resistant Staphylococcus aureus</td>
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<td>V01.89</td>
<td>Contact or exposure to other communicable diseases</td>
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<td>V02.53</td>
<td>Carrier or suspected carrier of methicillin susceptible Staphylococcus aureus</td>
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<tr>
<td>V02.54</td>
<td>Carrier or suspected carrier of methicillin resistant Staphylococcus aureus</td>
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<tr>
<td>V02.59</td>
<td>Carrier or suspected carrier of other specified bacterial diseases</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0

<table>
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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent detection by nucleic acid (DNA or RNA): Streptococcus, group A, direct probe technique

Streptococcus, group A, amplified probe technique

Streptococcus, group A, quantification

Explanation
Streptococcus A is a form of beta hemolytic streptococcus, which causes pharyngitis. Untreated infection can cause rheumatic fever or glomerulonephritis. Code 87650 may be requested as Streptococcus A by direct nucleic acid probe. The specimen is treated to isolate the DNA using a direct probe. Code 87651 may be requested as Streptococcus A by amplified nucleic acid probe. The Streptococcus A DNA is amplified using specific primers. Code 87652 may be requested as Streptococcus A nucleic acid quantification and reports quantification only.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
034.0 Streptococcal sore throat
041.01 Streptococcus infection in conditions classified elsewhere and of unspecified site, group A — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
460 Acute nasopharyngitis (common cold) — (Use additional code to identify infectious organism)
462 Acute pharyngitis — (Use additional code to identify infectious organism)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408
Also not with 87650: 87651-87652
Also not with 87651: 87652

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87653
87653 Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group B, amplified probe technique

Explanation
This test may be requested as GBS by direct nucleic acid probe. Group B Streptococcus is generally performed on pregnant women in labor or at any time during their pregnancy. The specimen is vaginal or rectal swab. The specimen is treated to isolate the DNA using an amplified probe assay to detect nucleic acid sequences specific to GBS. Results can be obtained in an hour, allowing for neonatal intervention or antibiotic treatment of the pregnant mother.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). To report immunoassay with direct optical observation, see code 87802.

Terms To Know
streptococcus group B colonization. Bacteria normally found in the vagina or lower intestine of many healthy adult women that may infect the fetus during childbirth, causing mental or physical handicaps or death. Women who test positive for streptococcus Group B during pregnancy are considered a "colonized" status and are treated with IV antibiotics at the time of delivery and may also be treated with oral antibiotics during the pregnancy. Synonym(s): beta Strep, GBS, Group B Strep.

ICD-9-CM Diagnostic Codes
041.02 Streptococcus infection in conditions classified elsewhere and of unspecified site, group B — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
V01.89 Contact or exposure to other communicable diseases
V02.51 Carrier or suspected carrier of Group B streptococcus
V02.59 Carrier or suspected carrier of other specified bacterial diseases
V28.6 Screening of Streptococcus B

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent detection by nucleic acid (DNA or RNA); Trichomonas vaginalis, direct probe technique

Explanation
A microbiology test for trichomoniasis, by direct probe technique, may be requested as trichomoniasis direct DNA probe, molecular probe assay, or DNA detection of trichomoniasis. Direct probe is a method to detect DNA of a target microorganism. This technique uses DNA probes that hybridize to whole chromosomes or specific target sequences for detection. The target DNA in the sample is fixed onto a slide and denatured from double-stranded DNA to single-stranded DNA. The target DNA is hybridized with that of the probe, reassociating into double-stranded nucleic acid. The unbound DNA is removed and the remaining DNA is counterstained and placed under fluoroscopy to visualize the hybridized probe attached to the target material.

Coding Tips
Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801). Trichomonal vulvovaginitis is an infection of the vulva and/or vagina with the pathogen Trichomonas vaginalis. Often asymptomatic and transmitted through coitus. This condition is reported with ICD-9-CM code 131.01. The organism can also cause infections of the urethra (131.02), prostate (131.03), or other urogenital sites.

Terms To Know
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
131.00 Unspecified urogenital trichomonia
131.01 Trichomonal vulvovaginitis
131.02 Trichomonal urethritis
131.09 Other urogenital trichomonia
131.8 Trichomonia of other specified sites
131.9 Unspecified trichomonia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408, 87177, 87209, 87808

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>

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87661
87661 Infectious agent detection by nucleic acid (DNA or RNA); Trichomonas vaginalis, amplified probe technique

Explanation
A microbiology test for trichomonas vaginalis may be requested as trichomonas vaginalis DNA probe, molecular probe assay, or DNA detection of trichomonas vaginalis. Trichomonas vaginalis is a common cause of vaginitis and culture is limited by poor sensitivity. In 87660, a direct probe method is used to detect DNA of the organism by using DNA probes that hybridize to whole chromosomes or specific target sequences for detection. The target DNA in the sample is fixed onto a slide and denatured from double-stranded DNA to single-stranded DNA. The target DNA is hybridized with that of the probe, reassociating into double-stranded nucleic acid. The unbound DNA is removed and the remaining DNA is counterstained and placed under fluoroscopy to visualize the hybridized probe attached to the target material. In 87661, an amplified probe technique is used to detect the organism. A small amount of DNA is manipulated using heating and cooling to reproduce the target. Because the generated DNA can also be used to replicate, the DNA is recreated exponentially.

Coding Tips
This code is new for 2014. If specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

Terms To Know
trichomonas vaginalis. Vaginal infection by a single-celled, flagellate protozoan causing discharge, inflammation, and itching.

ICD-9-CM Diagnostic Codes
131.01 Trichomonal vulvovaginitis
616.10 Unspecified vaginitis and vulvovaginitis — (Use additional code to identify organism, such as: 041.00-041.09, 041.10-041.19, 041.41-041.49)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 81400-81408, 87177, 87210, 87660, 87808
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87797-87799

87797 Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; direct probe technique, each organism
87798 amplified probe technique, each organism
87799 quantification, each organism

Explanation
Nucleic acid detection, also referred to as molecular pathology, is a rapidly developing diagnostic technique that is especially useful in identifying microorganisms which require tedious isolation and incubation and/or those which cannot be cultured. Another advantage of molecular methods is that they are able to detect infectious agents at much lower levels than required using other techniques. Report 87797 when direct probe technique is used. Direct probe involves isolating and identifying the infectious agent DNA or RNA. This involves cell lysis and extraction of the DNA using phenol or chloroform. Report 87798 when amplified probe technique is used. Amplified probe involves isolating and identifying the infectious agent DNA or RNA. This involves cell lysis and extraction of the DNA using phenol or chloroform. The nucleic acids are amplified using one of several techniques. Polymerase chain reaction (PCR) is the most frequently used amplification technique. Other techniques include ligase chain reaction (LCR) and the signal detection method (bDNA). Code 87799 reports quantification which may be performed following direct or amplified probe. It measures the amount of the microorganism DNA/RNA present.

Coding Tips
These codes report infectious agent detection by nucleic acid (DNA, RNA) direct probe for microorganisms that are not identified with a more specific code in range 87470-87652. Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801).

Terms To Know
DNA. Deoxyribonucleic acid.
Microorganism. Microscopic organisms, including bacteria, fungi, and protozoa.
PCCR. Polymerase chain reaction.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
80500-80502, 81400-81408, 87807
Also not with 87797: 87206, 87449, 87798-87799
Also not with 87798: 87206, 87449, 87799
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent detection by nucleic acid (DNA or RNA), multiple organisms; direct probe(s) technique

87800
Code 87800 reports multiple infectious agent detection by nucleic acid (DNA or RNA) using direct probe technique. Nucleic acid detection, also referred to as molecular pathology, is a rapidly developing diagnostic technique that is especially useful in identifying microorganisms that require tedious isolation and incubation and/or those that cannot be cultured. Another advantage of molecular methods is that they are able to detect infectious agents at much lower levels than required using other techniques. The test is useful in that absolute specificity of hard-to-identify organisms can be attained. Report 87801 when the multiple DNA target sequences are amplified using any of several techniques, such as polymerase chain reaction (PCR), or ligase chain reaction (LCR), or signal detection (BDNA).

Coding Tips
When detecting multiple infectious agents that are not specified by another more specific code, it is appropriate to report these codes. When detecting multiple respiratory viruses in a single test with multiple results, see 87631-97633. When reporting each specific organism nucleic acid detection from a primary source, consult CPT codes 87470-87660. When reporting detection of specific infectious agents that are not otherwise specified, consult CPT codes 87797-87799. Report once for each agent. Molecular pathology procedures (81200-81408) should not be reported in combination with or instead of the infection agent detection by nucleic acid procedures (87470-87801).

Terms To Know
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
V01.81 Contact with or exposure to anthrax
V01.82 Exposure to SARS-associated coronavirus
V01.89 Contact or exposure to other communicable diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

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Infectious agent antigen detection by immunoassay with direct optical observation; Streptococcus, group B

Explanation
Enzyme immunoassay (EIA) is a method for identifying organisms, extracellular toxins, and viral agents that use an enzyme bound antibody to detect antigen. The test may be performed directly on clinical samples or on organisms recovered from bacterial or viral culture. Direct optical observation, or optical immunoassay, allows for direct visual interpretation of any antibody-antigen reaction in the presence of low level light. This code reports the detection of Streptococcus, group B.

Coding Tips
For detection by nucleic acid, consult CPT code 87653.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.
streptococcus group B colonization. Bacteria normally found in the vagina or lower intestine of many healthy adult women that may infect the fetus during childbirth, causing mental or physical handicaps or death. Women who test positive for streptococcus Group B during pregnancy are considered a "colonized" status and are treated with IV antibiotics at the time of delivery and may also be treated with oral antibiotics during the pregnancy. Synonym(s): beta Strep, GBS, Group B Strep.

ICD-9-CM Diagnostic Codes
041.02 Streptococcus infection in conditions classified elsewhere and of unspecified site, group B — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
320.2 Streptococcal meningitis
482.32 Pneumonia due to Streptococcus, group B
771.81 Septicemia (sepsis) of newborn — (Use additional code to identify organism: 041.00-041.9) (Use additional codes to identify severe sepsis (995.92) and any associated acute organ dysfunction, if applicable)
V02.51 Carrier or suspected carrier of Group B streptococcus
V02.59 Carrier or suspected carrier of other specified bacterial diseases

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 87653

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87803

Infectious agent antigen detection by immunoassay with direct optical observation; Clostridium difficile toxin A

**Explanation**

Clostridium difficile is the major cause of antibiotic-associated diarrhea and colitis and is the cause for virtually all cases of pseudo-membranous colitis (PMC). The organism is found in stools of most patients with these diseases. One gram of stool is collected and sent to the laboratory unpreserved. The fecal sample is dispersed in a diluent with antibodies for Clostridium difficile antigen to form a complex of antibody and antigen. A complex of antibody and antigen is separated from the specimen and exposed to a second antibody for the antigen, and a portion of the antibody. A sample from the first complex is bound to a solid carrier and a sample from the second antibody exposure is labeled with a detection agent to determine the presence of Clostridium difficile antigen in the original fecal specimen.

**Coding Tips**

For detection by nucleic acid, consult CPT code 87493.

**Terms To Know**

*Clostridium perfringens/difficile.* Gram-positive, spore forming, obligate anaerobic bacteria from the family bacillaceae. Pathogenic species have the ability to produce deadly exotoxins or enzymes. *C. perfringens* is the most common cause of gas gangrene in humans. Toxin A from *C. perfringens* is associated with gas gangrene and necrotizing colitis while type C toxin causes enteritis necroticans. *C. difficile* is often encountered in patients on antibiotic therapy as it is normally found in the colon as part of the normal flora and it colonizes in the intestine as other beneficial bacteria die off and the balance is offset. *C. difficile* is found to produce Toxin A and B that cause enterocolitis. *C. difficile* is also a prevalent form of nosocomial or hospital-acquired infection. Diagnosis is usually made by identifying toxin in the stool or by enzyme immunoassay.

**ICD-9-CM Diagnostic Codes**

- 008.45 Intestinal infections due to clostridium difficile
- 009.0 Infectious colitis, enteritis, and gastroenteritis
- 009.1 Colitis, enteritis, and gastroenteritis of presumed infectious origin
- 009.2 Infectious diarrhea
- 009.3 Diarrhea of presumed infectious origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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87804

**87804**  Infectious agent antigen detection by immunoassay with direct optical observation; Influenza

**Explanation**
Influenza, a highly contagious, acute viral infection of the respiratory tract, is caused by a single-strand RNA virus known as an influenza virus. An infection may be identified by direct detection of the virus in respiratory secretions (usually, collected within one week of onset of symptoms) using enzyme immunoassay with monoclonal antibodies to detect viral antigen in the sample.

**Coding Tips**
For detection by enzyme immunoassay (EIA), consult CPT code 87400. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

**Terms To Know**
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

**ICD-9-CM Diagnostic Codes**

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<td>Acute upper respiratory infections of unspecified site</td>
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<td>466.0</td>
<td>Acute bronchitis — (Use additional code to identify infectious organism)</td>
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<td>466.19</td>
<td>Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)</td>
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<td>487.0</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-4,16,70.8

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Infectious agent antigen detection by immunoassay with direct optical observation; respiratory syncytial virus

Explanation
Enzyme immunoassays (EIA) are methods for identifying organisms, extracellular toxins, and viral agents using protein and polysaccharide antigens. The test may be performed directly on clinical samples, after growth on agar plates, or in viral cell cultures. The basis of detection is antigen-antibody binding. Cultures and impression smears for both aerobic and anaerobic infectious agents are commonly taken from involved lymph nodes, sputum, pleural fluid, cerebrospinal fluid (CSF), and spleen. Direct optical microscopic observation allows for continuous direct observation of low-light or low-contrast samples in the presence of fluorescence. This code reports the detection of respiratory syncytial virus.

Coding Tips
For detection by enzyme immunoassay (EIA), consult CPT code 87420. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

RSV. Respiratory syncytial virus.

ICD-9-CM Diagnostic Codes
079.6 Respiratory syncytial virus (RSV) — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
465.8 Acute upper respiratory infections of other multiple sites — (Use additional code to identify infectious organism)
465.9 Acute upper respiratory infections of unspecified site — (Use additional code to identify infectious organism)
466.0 Acute bronchitis — (Use additional code to identify infectious organism)
466.11 Acute bronchiolitis due to respiratory syncytial virus (RSV) — (Use additional code to identify infectious organism)
466.19 Acute bronchiolitis due to other infectious organisms — (Use additional code to identify infectious organism)
480.1 Pneumonia due to respiratory syncytial virus
485 Bronchopneumonia, organism unspecified
486 Pneumonia, organism unspecified

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent antigen detection by immunoassay with direct optical observation; Trichomonas vaginalis

**Explanation**

Enzyme immunoassays (EIA) are methods for identifying organisms, extracellular toxins, and viral agents using protein and polysaccharide antigens. The specimen is vaginal secretions. The basis of detection is antigen-antibody binding. Direct optical microscopic observation allows for continuous direct observation of low-light or low-contrast samples in the presence of fluorescence. Code 87808 reports the detection of Trichomonas vaginalis. Code 87809 reports the detection of adenovirus.

**Coding Tips**

These codes represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. For detection of Trichomonas vaginalis by nucleic acid, consult CPT code 87660. For detection of adenovirus by enzyme immunoassay (EIA), consult CPT code 87260. Note: Category 079 is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere.

**Terms To Know**

**specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

- 079.0 Adenovirus infection in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
- 131.00 Unspecified urogenital trichomoniasis
- 131.01 Trichomonal vulvovaginitis
- 131.02 Trichomonal urethritis
- 131.09 Other urogenital trichomoniasis
- 131.8 Trichomoniasis of other specified sites
- 131.9 Unspecified trichomoniasis
- 597.80 Unspecified urethritis
- 616.10 Unspecified vaginitis and vulvovaginitis — (Use additional code to identify organism, such as: 041.00-041.09, 041.10-041.19, 041.41-041.49)
- 647.80 Other specified maternal infectious and parasitic disease complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)
- 647.81 Other specified maternal infectious and parasitic disease with delivery — (Use additional code to further specify complication)

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Infectious agent antigen detection by immunoassay with direct optical observation; Chlamydia trachomatis

Explanation
This test may be requested as an optical immunoassay for Chlamydia trachomatis. C. trachomatis is a frequently occurring sexually transmitted disease. It may cause nonspecific urethritis or pelvic inflammatory disease (PID), although it is frequently asymptomatic in women. Another serotype also causes conjunctivitis. This test reports antigen detection using a competitive protein-binding assay, where an antigen binds to an antibody, which is fixed to a reflecting surface. This change in reflection can be observed directly as a color change.

Coding Tips
For detection by nucleic acid, consult CPT codes 87490-87492.

Terms To Know
chlamydia trachomatis. Bacterium that causes a common venereal disease. Symptoms of chlamydia are usually mild or absent, however, serious complications may cause irreversible damage, including cystitis, pelvic inflammatory disease, and infertility in women and discharge from the penis, prostatitis, and infertility in men. Genital chlamydial infection can cause arthritis, skin lesions, and inflammation of the eye and urethra (Reiter’s syndrome). Report this condition with ICD-9-CM codes 099.1, 099.3, 099.41, and 099.50-099.59.

conjunctivitis. Inflammation of the membrane lining the eyelids.

PID. Pelvic inflammatory disease.

ICD-9-CM Diagnostic Codes
099.41 Nongonococcal urethritis (NGU) due to Chlamydia trachomatis
099.50 Chlamydia trachomatis infection of unspecified site
099.51 Chlamydia trachomatis infection of pharynx
099.52 Chlamydia trachomatis infection of anus and rectum
099.53 Chlamydia trachomatis infection of lower genitourinary sites — (Use additional code to specify site of infection: 595.4, 616.0, 616.11)
099.54 Chlamydia trachomatis infection of other genitourinary sites — (Use additional code to specify site of infection: 604.91, 614.9)
099.55 Chlamydia trachomatis infection of unspecified genitourinary site
099.56 Chlamydia trachomatis infection of peritoneum
099.59 Chlamydia trachomatis infection of other specified site
647.20 Other maternal venereal diseases, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)
647.21 Other maternal venereal diseases with delivery — (Use additional code to further specify complication)

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87850

87850  Infectious agent antigen detection by immunoassay with direct optical observation; Neisseria gonorrhoeae

Explanation
This test may be requested as an optical immunoassay for Neisseria gonorrhea. N. Gonorrhea is one of the most common sexually transmitted infections. This test reports detection using a competitive protein-binding assay where an antigen binds to an antibody, which is fixed to a reflecting surface. This change in reflection can be observed directly as a color change.

Coding Tips
If a specimen is transported to an outside laboratory, report 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes
098.0  Gonococcal infection (acute) of lower genitourinary tract
098.10 Gonococcal infection (acute) of upper genitourinary tract, site unspecified
098.11 Gonococcal cystitis (acute)
098.12 Gonococcal prostatitis (acute)
098.13 Gonococcal epididymo-orchitis (acute)
098.14 Gonococcal seminal vesiculitis (acute)
098.15 Gonococcal cervicitis (acute)
098.16 Gonococcal endometritis (acute)
098.17 Gonococcal salpingitis, specified as acute
098.19 Other gonococcal infections (acute) of upper genitourinary tract
098.20 Gonococcal infections, chronic, of lower genitourinary tract
098.30 Chronic gonococcal infection of upper genitourinary tract, site unspecified
098.31 Gonococcal cystitis, chronic
098.32 Gonococcal prostatitis, chronic
098.33 Gonococcal epididymo-orchitis, chronic
098.34 Gonococcal seminal vesiculitis, chronic
098.35 Gonococcal cervicitis, chronic
098.36 Gonococcal endometritis, chronic
098.37 Gonococcal salpingitis, chronic
098.39 Other chronic gonococcal infections of upper genitourinary tract
098.40 Gonococcal conjunctivitis (neonatorum)
098.41 Gonococcal iridocyclitis
098.42 Gonococcal endophthalma
098.43 Gonococcal keratitis
098.49 Other gonococcal infection of eye
098.50 Gonococcal arthritis
098.51 Gonococcal synovitis and tenosynovitis
098.52 Gonococcal bursitis
098.53 Gonococcal spondylitis
098.59 Other gonococcal infection of joint
098.60 Gonococcal infection of pharynx
098.70 Gonococcal infection of anus and rectum
098.81 Gonococcal keratosis (blennorragica)
098.82 Gonococcal meningitis
098.83 Gonococcal pericarditis
098.84 Gonococcal endocarditis
098.85 Other gonococcal heart disease
098.86 Gonococcal peritonitis
098.89 Gonococcal infection of other specified sites

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,210.10; 100-4,18,170.1; 100-4,18,170.2; 100-4,18,170.3; 100-4,18,170.4; 100-4,18,170.5

CCI Version 20.0
80500-80502, 87590-87592

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Infectious agent antigen detection by immunoassay with direct optical observation; Streptococcus, group A

Explanation
This test may be requested as an optical immunoassay for Streptococcus A. Streptococcus A is a form of beta hemolytic streptococcus, which causes pharyngitis. Untreated infection can cause rheumatic fever or glomerulonephritis. This test reports detection using a competitive protein-binding assay where an antigen binds to an antibody, which is fixed to a reflecting surface. This change in reflection can be observed directly as a color change.

Coding Tips
For detection by nucleic acid, consult CPT codes 87650-87652. This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW. See appendix 1 for CLIA-waived kits and test systems.

Terms To Know
CLIA. Clinical Laboratory Improvement Amendments. Requirements set in 1988, CLIA imposes varying levels of federal regulations on clinical procedures. Few laboratories, including those in physician offices, are exempt. Adopted by Medicare and Medicaid, CLIA regulations redefine laboratory testing in regard to laboratory certification and accreditation, proficiency testing, quality assurance, personnel standards, and program administration.

ICD-9-CM Diagnostic Codes
034.0    Streptococcal sore throat
034.1    Scarlet fever
040.0    Gas gangrene
040.82   Toxic shock syndrome — (Use additional code to identify the organism)
288.66   Bandemia
390      Rheumatic fever without mention of heart involvement
391.0    Acute rheumatic pericarditis
391.1    Acute rheumatic endocarditis
391.2    Acute rheumatic myocarditis
391.8    Other acute rheumatic heart disease
391.9    Unspecified acute rheumatic heart disease
462      Acute pharyngitis — (Use additional code to identify infectious organism)
463      Acute tonsillitis — (Use additional code to identify infectious organism)
580.0    Acute glomerulonephritis with lesion of proliferative glomerulonephritis
580.4    Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis
580.81   Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)
681.01   Felon — (Use additional code to identify organism: 041.1)
681.02   Onychia and paronychia of finger — (Use additional code to identify organism: 041.1)
681.11   Onychia and paronychia of toe — (Use additional code to identify organism: 041.1)
682.0    Cellulitis and abscess of face — (Use additional code to identify organism, such as 041.1, etc.)
682.1    Cellulitis and abscess of neck — (Use additional code to identify organism, such as 041.1, etc.)
682.2    Cellulitis and abscess of trunk — (Use additional code to identify organism, such as 041.1, etc.)
682.3    Cellulitis and abscess of upper arm and forearm — (Use additional code to identify organism, such as 041.1, etc.)
682.4    Cellulitis and abscess of hand, except fingers and thumb — (Use additional code to identify organism, such as 041.1, etc.)
682.5    Cellulitis and abscess of buttck — (Use additional code to identify organism, such as 041.1, etc.)
682.6    Cellulitis and abscess of leg, except foot — (Use additional code to identify organism, such as 041.1, etc.)
682.7    Cellulitis and abscess of foot, except toes — (Use additional code to identify organism, such as 041.1, etc.)
728.0    Infective myositis
728.86   Necrotizing fasciitis — (Use additional code to identify infectious organism, 041.00-041.89, 785.4, if applicable)
780.32   Complex febrile convulsions
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
80500-80502, 87650-87652
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent drug susceptibility phenotype prediction using regularly updated genotypic bioinformatics

**Explanation**

This test directly and quantitatively measures resistance of a patient's viral infection to drugs in order to help the physician select appropriate drugs. The test uses nucleic acid application to derive protease (PR) and reverse transcriptase (RT) sequences from a patient's plasma sample. A resistance test vector (RTV) is constructed by incorporating the patient-derived segment into a viral vector with an indicator gene, firefly luciferase, inserted within a portion of the viral envelope gene. The completion of a single round of viral replication results in the production of luciferase. Drug susceptibility is measured by comparing luciferase activity produced in the presence and absence of drugs. Susceptible viruses produce low levels of luciferase activity in the presence of PR and/or RT inhibitors, whereas viruses with reduced susceptibility to these drugs produce higher levels of luciferase.

**Coding Tips**

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

_**Laboratory.**_ Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

**ICD-9-CM Diagnostic Codes**

- **042** Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)
- **079.50** Unspecified retrovirus in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
- **079.51** Human T-cell lymphotrophic virus, type I (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)
- **V08** Asymptomatic human immunodeficiency virus (HIV) infection status — (This code is only to be used when no HIV infection symptoms or conditions are present. If any

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<th>Fac PE</th>
<th>Malpractice</th>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent genotype analysis by nucleic acid (DNA or RNA); HIV-1, reverse transcriptase and protease regions

Hepatitis C virus

HIV-1, other region (eg, integrase, fusion)

**Explanation**

Treatment of human immunodeficiency virus (HIV) requires multiple antiviral drugs administered in combination to suppress virus replication. However, over time, HIV can become resistant to one or more of these. Resistance can be recognized by identifying increases in the viral load and declines in the CD4 counts. These codes are used to report assays that help identify HIV antiviral drug resistance. A genotype assay that can predict expected HIV drug resistance for most individuals is reported with 87901 (reverse transcriptase and protease regions) or 87906 (other regions; for example, integrase or fusion). Each of the procedures described by 87901 and 87906 require the analysis of eight separate sequence segments of nucleic acid. In 87902, hepatitis C virus (HCV) DNA is isolated for the patient specimens and amplified by polymerase chain reaction; one distinct gene segment shows amplification if HCV DNA is present. Anti-HBc IgM can be detected at about the same time clinical symptoms appear.

**Coding Tips**

Code 87906 is a resequenced code and will not display in numeric order. Code 87900 is used to report infectious agent drug susceptibility phenotype prediction for HIV-1. To report phenotype analysis with drug resistance tissue culture analysis, see codes 87903–87904.

**Terms To Know**

HIV. Human immunodeficiency virus. NCD References: 190.9, 190.13, 190.14.

**ICD-9-CM Diagnostic Codes**

042 Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)

070.41 Acute hepatitis C with hepatic coma

070.44 Chronic hepatitis C with hepatic coma

070.51 Acute hepatitis C without mention of hepatic coma

070.54 Chronic hepatitis C without mention of hepatic coma

070.70 Unspecified viral hepatitis C without hepatic coma

070.71 Unspecified viral hepatitis C with hepatic coma

079.50 Unspecified retrovirus in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)

079.51 Human t-cell lymphotropic virus, type I (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)

**CCI Version 20.0**

80500-80502, 81400-81408

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent phenotype analysis by nucleic acid (DNA or RNA) with drug resistance tissue culture analysis, HIV 1; first through 10 drugs tested

**Each additional drug tested (List separately in addition to code for primary procedure)**

**Explanation**
Treatment of human immunodeficiency virus (HIV) requires multiple antiviral drugs administered in combination to suppress virus replication. However, over time, HIV can become resistant to one or more of these. Resistance can be recognized by identifying increases in the viral load and declines in the CD4 counts. These codes are used to report assays that help identify HIV antiviral drug resistance. Report 87903 for a phenotype assay that may be required when newer drugs are being considered for treatment of HIV, as newer drugs sometimes do not have sufficient data to predict expected outcomes based on genotype studies alone. Phenotype analysis reported by 87903 includes drug resistance tissue culture analysis of up to 10 drugs. Report 87904 for each additional drug tested.

**Coding Tips**
As an add-on code, 87904 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. For genotype analysis, see codes 87901 and 87906.

**Terms To Know**
HIV, Human immunodeficiency virus. NCD References: 190.9, 190.13, 190.14.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
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<tr>
<td>042</td>
<td>Human immunodeficiency virus [HIV] — (Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection: 079.53)</td>
</tr>
<tr>
<td>079.50</td>
<td>Unspecified retrovirus in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
</tr>
<tr>
<td>079.51</td>
<td>Human T-cell lymphotropic virus, type I (HTLV-I), in conditions classified elsewhere and of unspecified site — (Note: This code is to be used as an additional code to identify the viral agent in diseases classifiable elsewhere and viral infection of unspecified nature or site)</td>
</tr>
<tr>
<td>647.60</td>
<td>Other maternal viral disease complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)</td>
</tr>
</tbody>
</table>

**CCI Version 20.0**
81400-81408, 87900
Also not with 87903: 80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
87905
Infectious agent enzymatic activity other than virus (eg, sialidase activity in vaginal fluid)

Explanation
This code is used to report the enzymatic activity of an infectious agent, other than a virus, using an immunologic technique.

Coding Tips
This test may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report this code with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. See code 87255 when virus isolation including identification by nonimmunologic method, other than by cytopathic effect is performed. When documentation indicates that transdermal oxygen saturation is performed, report the appropriate code from the 94760-94762 range.

ICD-9-CM Diagnostic Codes
795.00 Abnormal glandular Papanicolaou smear of cervix
795.01 Papanicolaou smear of cervix with atypical squamous cells of undetermined significance (ASC-US)
795.02 Papanicolaou smear of cervix with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)
795.03 Papanicolaou smear of cervix with low grade squamous intraepithelial lesion (LGSIL)
795.04 Papanicolaou smear of cervix with high grade squamous intraepithelial lesion (HGSIL)
795.06 Papanicolaou smear of cervix with cytologic evidence of malignancy
795.07 Satisfactory cervical smear but lacking transformation zone
795.09 Other abnormal Papanicolaou smear of cervix and cervical HPV — (Use additional code for associated human papillomavirus: 079.4)
795.10 Abnormal glandular Papanicolaou smear of vagina — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.11 Papanicolaou smear of vagina with atypical squamous cells of undetermined significance (ASC-US) — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.12 Papanicolaou smear of vagina with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H) — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.13 Papanicolaou smear of vagina with low grade squamous intraepithelial lesion (LGSIL) — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.14 Papanicolaou smear of vagina with high grade squamous intraepithelial lesion (HGSIL) — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.15 Vaginal high risk human papillomavirus (HPV) DNA test positive — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.16 Papanicolaou smear of vagina with cytologic evidence of malignancy — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.18 Unsatisfactory vaginal cytology smear — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03)
795.19 Other abnormal Papanicolaou smear of vagina and vaginal HPV — (Use additional code to identify acquired absence of uterus and cervix, if applicable: V88.01-V88.03) (Use additional code for associated human papillomavirus: 079.4)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-4,16,70.8

CCI Version 20.0
82657, 84275
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Infectious agent genotype analysis by nucleic acid (DNA or RNA); cytomegalovirus

**Explanation**
Genotype assays are useful in detecting potential or actual drug resistance in a particular virus. In 87910, the DNA of cytomegalovirus is isolated for and amplified by polymerase chain reaction to detect mutations that are related to antiretroviral pharmaceutical resistance.

**Coding Tips**
This is a resequenced code and will not display in numeric order.

**Terms To Know**
DNA. Deoxyribonucleic acid.
RNA. Ribonucleic acid.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
</tr>
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<tbody>
<tr>
<td>078.5</td>
<td>Cytomegaloviral disease — (Use additional code to identify manifestation: 484.1, 573.1)</td>
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<tr>
<td>647.60</td>
<td>Other maternal viral disease complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>647.61</td>
<td>Other maternal viral disease with delivery — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>647.62</td>
<td>Other maternal viral disease with delivery, with current postpartum complication — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>647.63</td>
<td>Other maternal viral disease, antepartum — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>647.64</td>
<td>Other maternal viral diseases complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication — (Use additional code to further specify complication)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
No CCI Edits apply to this code.

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Infectious agent genotype analysis by nucleic acid (DNA or RNA); Hepatitis B virus

**Explanation**
Genotype assays are useful in detecting potential or actual drug resistance in a particular virus. Code 87912 is reported for the isolation and analyzing of 10 hepatitis B virus (HBV) genomes that identify those at risk of HBV disease progression and also to determine optimal antiviral therapy.

**Coding Tips**
This is a resequenced code and will not display in numeric order. To report infectious agent genotype analysis by nucleic acid for hepatitis C see code 87902.

**Terms To Know**
- **DNA**: Deoxyribonucleic acid.
- **RNA**: Ribonucleic acid.

**ICD-9-CM Diagnostic Codes**
- **070.20** Virus hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta
- **070.21** Virus hepatitis B with hepatic coma, acute or unspecified, with hepatitis delta
- **070.22** Virus hepatitis B with hepatic coma, chronic, without mention of hepatitis delta
- **070.23** Virus hepatitis B with hepatic coma, chronic, with hepatitis delta
- **070.30** Virus hepatitis B without mention of hepatic coma, acute or unspecified, without mention of hepatitis delta
- **070.31** Virus hepatitis B without mention of hepatic coma, acute or unspecified, with hepatitis delta
- **070.32** Virus hepatitis B without mention of hepatic coma, chronic, without mention of hepatitis delta
- **070.33** Virus hepatitis B without mention of hepatic coma, chronic, with hepatitis delta
- **070.6** Unspecified viral hepatitis with hepatic coma
- **070.9** Unspecified viral hepatitis without mention of hepatic coma
- **647.60** Other maternal viral disease complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care — (Use additional code to further specify complication)
- **647.61** Other maternal viral disease with delivery — (Use additional code to further specify complication)
- **647.62** Other maternal viral disease with delivery, with current postpartum complication — (Use additional code to further specify complication)
- **647.63** Other maternal viral disease, antepartum — (Use additional code to further specify complication)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**
81400-81408
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**88000-88007**

- **88000**: Necropsy (autopsy), gross examination only; without CNS
- **88005**: with brain
- **88007**: with brain and spinal cord

**Explanation**

This code reports the examination of a body after death. The body is dissected. The organs and tissues are systematically examined and described. Report code 88000 when the central nervous system is NOT examined. Report 88005 when the brain is also examined and 88007 when the brain and spinal cord are also examined. This is usually done to determine the cause of death, to improve diagnosis and treatment of diseases, or to benefit family members in cases of heritable illnesses.

**Coding Tips**

These codes represent only the services of the physician. When performed by an outside laboratory append modifier 90 Reference (outside) laboratory. To report necropsy of infant or still born see consult CPT codes 88012-88016. This is gross examination only. For gross and microscopic consult CPT codes 88020-88027. For limited examination (regional, single organ) consult CPT codes 88036-88037.

**ICD-9-CM Diagnostic Codes**

- **646.90**: Unspecified complication of pregnancy, unspecified as to episode of care — (Use additional code to further specify complication)
- **646.91**: Unspecified complication of pregnancy, with delivery — (Use additional code to further specify complication)
- **646.93**: Unspecified complication of pregnancy, antepartum — (Use additional code to further specify complication)
- **668.90**: Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, unspecified as to episode of care — (Use additional code(s) to further specify complication)
- **668.92**: Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication — (Use additional code(s) to further specify complication)
- **668.94**: Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, postpartum condition or complication — (Use additional code(s) to further specify complication)
- **674.90**: Unspecified complications of puerperium, unspecified as to episode of care
- **674.92**: Unspecified complications of puerperium, with delivery, with mention of postpartum complication
- **674.94**: Unspecified complications of puerperium, postpartum condition or complication
- **798.0**: Sudden infant death syndrome
- **798.1**: Instantaneous death

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**IOM References**

100-2,15,80.1

**CCI Version 20.0**

No CCI Edits apply to this code.
**88012-88016**

88012  Necropsy (autopsy), gross examination only; infant with brain
88014  stillborn or newborn with brain
88016  macerated stillborn

**Explanation**

This code reports the examination of a stillborn fetus whose body tissues have become softened, as happens when there is a delay from the time of death in utero to the delivery. The body is dissected. The organs and tissues are systematically examined and described. Report 88012 when infant with brain is examined, 88014 when stillborn or newborn with brain is examined or 88016 when macerated stillborn is examined. This is usually done to determine the cause of death, to improve diagnosis and treatment of diseases, or to benefit family members in cases of heritable illnesses.

**Coding Tips**

These codes represent only the services of the physician. When performed by an outside laboratory, append modifier 90 Reference (outside) laboratory. For patient other than infant or newborn, consult CPT codes 88000-88007. This is gross examination only. For gross and microscopic, consult CPT codes 88028-88029. For limited examination (regional, single organ), consult CPT codes 88036-88037.

**ICD-9-CM Diagnostic Codes**

768.0  Fetal death from asphyxia or anoxia before onset of labor or at unspecified time — (Use additional code(s) to further specify condition. Use only when associated with newborn morbidity classifiable elsewhere)

768.1  Fetal death from asphyxia or anoxia during labor — (Use additional code(s) to further specify condition. Use only when associated with newborn morbidity classifiable elsewhere)

779.9  Unspecified condition originating in the perinatal period — (Use additional code(s) to further specify condition)

798.0  Sudden infant death syndrome

798.1  Instantaneous death

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
Necropsy (autopsy), limited, gross and/or microscopic; regional single organ

Explanation
This code reports the examination of a body after death. The body is dissected. A single organ and its related tissues are systematically examined (gross and microscopic) and described. Laboratory tests may also be performed on organ tissue samples. This is usually done to determine the cause of death, to improve diagnosis and treatment of diseases, or to benefit family members in cases of heritable illnesses. For code 88036 certain organs and tissues within a system or region of the body are systematically examined (gross and microscopically). Report code 88037 when representative samples from the organ are taken and microscopically examined and described.

Coding Tips
These codes represent only the services of the physician. When performed by an outside laboratory append modifier 90, Reference (outside) laboratory. To report gross examination only, consult CPT codes 88000-88016. To report gross and microscopic examination, consult CPT codes 80020-80029.

ICD-9-CM Diagnostic Codes

<table>
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<th>Code</th>
<th>Description</th>
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<td>646.90</td>
<td>Unspecified complication of pregnancy, unspecified as to episode of care — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>646.91</td>
<td>Unspecified complication of pregnancy, with delivery — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>646.93</td>
<td>Unspecified complication of pregnancy, antepartum — (Use additional code to further specify complication)</td>
</tr>
<tr>
<td>668.90</td>
<td>Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, unspecified as to episode of care — (Use additional code(s) to further specify complication)</td>
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<td>668.92</td>
<td>Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication — (Use additional code(s) to further specify complication)</td>
</tr>
<tr>
<td>668.94</td>
<td>Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, postpartum condition or complication — (Use additional code(s) to further specify complication)</td>
</tr>
<tr>
<td>674.90</td>
<td>Unspecified complications of puerperium, unspecified as to episode of care</td>
</tr>
<tr>
<td>674.92</td>
<td>Unspecified complications of puerperium, with delivery, with mention of postpartum complication</td>
</tr>
<tr>
<td>674.94</td>
<td>Unspecified complications of puerperium, postpartum condition or complication</td>
</tr>
<tr>
<td>768.0</td>
<td>Fetal death from asphyxia or anoxia before onset of labor or at unspecified time — (Use additional code(s) to further specify condition. Use only when associated with newborn morbidity classifiable elsewhere)</td>
</tr>
<tr>
<td>768.1</td>
<td>Fetal death from asphyxia or anoxia during labor — (Use additional code(s) to further specify condition. Use only when associated with newborn morbidity classifiable elsewhere)</td>
</tr>
<tr>
<td>779.9</td>
<td>Unspecified condition originating in the perinatal period — (Use additional code(s) to further specify condition)</td>
</tr>
<tr>
<td>798.0</td>
<td>Sudden infant death syndrome</td>
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<tr>
<td>798.1</td>
<td>Instantaneous death</td>
</tr>
<tr>
<td>968.4</td>
<td>Poisoning by other and unspecified general anesthetics — (Use additional code to specify the effects of poisoning)</td>
</tr>
<tr>
<td>995.4</td>
<td>Shock due to anesthesia not elsewhere classified</td>
</tr>
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</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2, 15, 80.1

CCI Version 20.0
No CCI Edits apply to this code.
88104-88106

88104  Cytopathology, fluids, washings or brushings, except cervical or vaginal; smears with interpretation

88106  simple filter method with interpretation

Explanation
These tests have many different names, depending on the type of specimen obtained for analysis (e.g., bronchial cytology, esophageal cytology, etc.). Specimen is obtained by separately reportable washing or brushing procedure. Code 88104 reports cytopathology evaluation of smear specimens, including alcohol fixed, Papanicolaou, direct smear with 95 percent ethanol, or liquid fixative. Report 88106 for a simple filter method only.

Coding Tips
To report nongynecological selective cellular enhancement including filter transfer techniques, see code 88112. To report cervical or vaginal smears, consult CPT codes 88141–88143 and 88174–88175, and HCPCS Level II codes G0123–G0124, P3000–P3001, and Q0091. Follow third-party payer guidelines for selecting the appropriate code. Codes 88104 and 88106 should not be reported together.

Terms To Know
cytology. Examination of cells for pathology, physiology, and chemistry content.
PAP. 1) Papanicolaou test or smear. NCD References: 190.2, 210.2 2) Pulmonary artery pressure.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
88387
Also not with 88104: 88106, 88172-88173
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Cytopathology, concentration technique, smears and interpretation (e.g., Saccomanno technique)

Cytopathology, selective cellular enhancement technique with interpretation (e.g., liquid based slide preparation method), except cervical or vaginal

**Explanation**
Cytopathology, concentration technique (e.g., Saccomanno, cytocentrifugation, and cytospins) may be done on many different types of specimen samples like bronchial, cervicovaginal, and conjunctival brushings, nipple discharge, sputum, and gastrointestinal epithelial cell specimens. Cellular smear preparations (cervicovaginal, conjunctival, bronchial brushings, nipple discharge) are immediately fixated in 95 percent ethanol or pap fixative to eliminate drying. GI, urologic, and sputum samples are collected with a Saccomanno fixative added. Following preparation, the sample is centrifuged to yield a pellet at the bottom of the tube and overlying supernatant. The clear fluid supernatant is decanted completely and the pellet is used to make direct smears of the concentrated sample for cytopathology and cell counts. Cytocentrifugation, cytospins, smears and interpretations are then preformed. Code 88112 is used to report selective cellular enhancement for cytopathology, such as liquid based slide preparation method. This code is reported when both concentration and enrichment of cytology specimens is done beyond a concentration technique alone reported with 88108 (e.g., Saccomanno, cytocentrifugation, and cytospins). Enhancement technologies allow not only for concentration of the diagnostic material, but also for removing of background debris on complicated specimens that cannot be evaluated with typical concentration techniques alone (see 88108). One liquid based slide preparation method uses a filtration system with a disposable filter, support, and means of drawing fluid where cells are caught within a large enough area to provide a high-quality, high-yield monolayer slide that has good quantity, distribution, and clarity for diagnostic purposes. When a sample is prepared using enhanced cytopathology, the slide preparation is examined and compared to previous studies. Report 88112 for any specimen except cervical or vaginal.

**Coding Tips**
To report cervical or vaginal smears consult CPT codes 88141-88143 and 88174-88175 and HCPCS Level II codes P3000-P3001 and Q0091. Follow third-party payer guidelines for selecting the appropriate code. Do not report CPT code 88112 with CPT code 88108 unless two distinct specimens are processed. To report gastric intubation with lavage, consult CPT codes 43753-43757. To report cervical or vaginal smears, consult CPT code 88150-88155. To report x-ray localization, consult CPT code 74340.

**Terms To Know**

**specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

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**88120-88121**

88120  
Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; manual

88121  
using computer-assisted technology

**Explanation**

Fluorescence in situ hybridization (FISH) DNA probe technology is a technique used to determine nucleic acid sequences within cells. Probes (short sequences of fluorescently labeled, single-strand DNA) are created. These probes match target sequences and bind to complementary strands of DNA, which aids in locating the targeted chromosomes. FISH DNA probe technology can be used to detect chromosomal abnormalities in urinary tract specimens, aiding in the initial identification of bladder cancer, as well as in bladder cancer surveillance. Analysis is done using three to five molecular probes to determine the organization, structure, form, and composition within the cells being studied, either manually in 88120 or using computer-assisted technology in 88121. These codes are reported once for each specimen.

**Coding Tips**

To report morphometric in situ hybridization on specimens other than urinary tract see codes 88367–88368. When more than five probes are used code 88399 should be reported.

**Terms To Know**

specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

188.1  Malignant neoplasm of dome of urinary bladder
188.2  Malignant neoplasm of lateral wall of urinary bladder
188.3  Malignant neoplasm of anterior wall of urinary bladder
188.4  Malignant neoplasm of posterior wall of urinary bladder
188.5  Malignant neoplasm of bladder neck
188.6  Malignant neoplasm of ureteric orifice
188.7  Malignant neoplasm of urachus
189.8  Malignant neoplasm of other specified sites of urinary organs
189.9  Malignant neoplasm of urinary organ, site unspecified
198.1  Secondary malignant neoplasm of other urinary organs
233.7  Carcinoma in situ of bladder

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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**88141**

88141  Cytopathology, cervical or vaginal (any reporting system), requiring interpretation by physician

**Explanation**

This test is for the interpretation by a physician of a Papanicolaou (Pap) smear. This code is used in addition to the code for the technical service.

**Coding Tips**

Note that code 88141 is an add-on code and must be used in conjunction with codes 88142–88154, 88164–88617, and 88174–88175. Codes 88141–88155, 88164–88167, and 88174–88175 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150–88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164–88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142–88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88174–88175 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition to services that are provided. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review. Also see HCPCS Level II codes G0123–G0124 and P3000–P3001.

**ICD-9-CM Diagnostic Codes**

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<td>078.11</td>
<td>Condyloma acuminatum</td>
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<tr>
<td>098.0</td>
<td>Gonococcal infection (acute) of lower genitourinary tract</td>
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<td>098.2</td>
<td>Gonococcal infections, chronic, of lower genitourinary tract</td>
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<td>112.1</td>
<td>Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)</td>
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<td>180.8</td>
<td>Malignant neoplasm of other specified sites of cervix</td>
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<td>180.9</td>
<td>Malignant neoplasm of cervix uteri, unspecified site</td>
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<td>184.0</td>
<td>Malignant neoplasm of vagina</td>
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<tr>
<td>198.82</td>
<td>Secondary malignant neoplasm of genital organs</td>
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<td>Carcinoma in situ of cervix uteri</td>
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<td>Carcinoma in situ of other and unspecified parts of uterus</td>
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<td>Symptomatic menopausal or female climacteric states</td>
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<td>627.3</td>
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<td>795.00</td>
<td>Abnormal glandular Papanicolaou smear of cervix</td>
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<td>795.01</td>
<td>Papanicolaou smear of cervix with atypical squamous cells of undetermined significance (ASC-US)</td>
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<tr>
<td>795.02</td>
<td>Papanicolaou smear of cervix with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)</td>
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<td>Papanicolaou smear of cervix with low grade squamous intraepithelial lesion (LSIL)</td>
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<td>Papanicolaou smear of cervix with high grade squamous intraepithelial lesion (HSIL)</td>
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<td>Cervical high risk human papillomavirus (HPV) DNA test positive</td>
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<td>V10.42</td>
<td>Personal history of malignant neoplasm of other parts of uterus</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.2; 100-3,210.2

**CCI Version 20.0**

88387, G0123-G0124, G0141-G0148, P3000

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88142-88143

88142  Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; manual screening under physician supervision

88143  with manual screening and rescreening under physician supervision

Explanation
These tests may be identified by the name "thin prep." Specimen collection is by cervical or endocervical scraping or aspiration of vaginal fluid. The physician obtaining the specimen places the specimen in a preservative suspension. At the laboratory, special instruments take the cells in the preservative suspension and "plate-out" a monolayer for screening—the careful review of the specimen for abnormal cells. Report 88142 for manual screening done under physician supervision and 88143 for manual screening followed by manual rescreening, done under physician supervision. System of reporting may be Bethesda or non-Bethesda.

Coding Tips
Note that 88141 and 88155 are add-on codes and must be used in conjunction with codes 88142–88154, 88164–88167, and 88174–88175. Codes 88141–88155 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150–88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164–88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142–88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review. Also see HCPCS Level II codes G0123-G0124 and P3000-P3001.

ICD-9-CM Diagnostic Codes
054.11  Herpetic vulvovaginitis
078.11  Condyloma acuminatum
098.0  Gonococcal infection (acute) of lower genitourinary tract
098.2  Gonococcal infections, chronic, of lower genitourinary tract
112.1  Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
131.01  Trichomonal vulvovaginitis
180.0  Malignant neoplasm of endocervix
180.1  Malignant neoplasm of exocervix
180.8  Malignant neoplasm of other specified sites of cervix
180.9  Malignant neoplasm of cervix uteri, unspecified site
184.0  Malignant neoplasm of vagina
198.82  Secondary malignant neoplasm of genital organs
219.0  Benign neoplasm of cervix uteri
219.1  Benign neoplasm of corpus uteri
233.1  Carcinoma in situ of cervix uteri
616.0  Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
616.11  Vaginits and vulvovaginitis in diseases classified elsewhere — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19) (Code first underlying disease: 127.4)
616.2  Cyst of Bartholin's gland — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
622.0  Erosion and ectropion of cervix
622.11  Mild dysplasia of cervix
622.12  Moderate dysplasia of cervix
626.2  Excessive or frequent menstruation
626.6  Metrorrhagia
626.7  Postcoital bleeding
627.1  Postmenopausal bleeding
627.2  Symptomatic menopausal or female climacteric states
627.3  Postmenopausal atrophic vaginitis
795.00  Abnormal glandular Papanicolaou smear of cervix
795.01  Papanicolaou smear of cervix with atypical squamous cells of undetermined significance (ASC-US)
795.02  Papanicolaou smear of cervix with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)
795.03  Papanicolaou smear of cervix with low grade squamous intraepithelial lesion (LSIL)
795.04  Papanicolaou smear of cervix with high grade squamous intraepithelial lesion (HSIL)
795.05  Cervical high risk human papillomavirus (HPV) DNA test positive

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.2; 100-3,210.2

CCI Version 20.0
88147-88150, 88152-88154, 88164-88167, 88387, G0123, G0143-G0148, P3000
Also not with 88142: 88108
Also not with 88143: 88142

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88147-88148

88147 Cytopathology smears, cervical or vaginal; screening by automated system under physician supervision
88148 screening by automated system with manual rescreening under physician supervision

Explanation
These tests may be identified as a cervical smear, Pap smear, or vaginal cytology. Specimen collection is by cervical or endocervical scraping or aspiration of vaginal fluid. Method is microscopy examination of a spray or liquid fixated smear. Code 88147 should be used to report smears screened by automated system under physician supervision, while 88148 reports automated screening with manual rescreening under physician supervision. System of reporting may be Bethesda or non-Bethesda.

Coding Tips
Note that 88141 and 88155 are add-on codes and must be used in conjunction with 88142–88154, 88164–88167, and 88174–88175. Codes 88141–88155, 88164–88175 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150–88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164–88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142–88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88174–88175 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition to services that are provided. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review. Also see HCPCS Level II codes G0123–G0124 and P3000–P3001.

ICD-9-CM Diagnostic Codes
054.11 Herpetic vulvovaginitis
078.10 Viral warts, unspecified
078.11 Condyloma acuminatum
098.0 Gonococcal infection (acute) of lower genitourinary tract
098.2 Gonococcal infections, chronic, of lower genitourinary tract
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
131.01 Trichomonal vulvovaginitis
180.0 Malignant neoplasm of endocervix
198.82 Secondary malignant neoplasm of genital organs
219.0 Benign neoplasm of cervix uteri
219.1 Benign neoplasm of corpus uteri
233.1 Carcinoma in situ of cervix uteri

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Cytopathology, slides, cervical or vaginal; manual screening under physician supervision

88150
with manual screening and computer-assisted rescreening under physician supervision

88152
with manual screening and rescreening under physician supervision

88153
with manual screening and computer-assisted rescreening using cell selection and review under physician supervision

88154
with manual screening and computer-assisted rescreening using cell selection and review under physician supervision

Explanation
These tests may also be identified as a cervical smear, Pap smear, or vaginal cytology. The Specimen is cells collected by scraping or brushing the cervix or endocervix, or aspiration of vaginal fluid. The specimen is then smeared onto a slide and chemically treated with a preservative. These codes should be reported when the any system other than the Bethesda System of evaluating and describing cervical/vaginal cytopathology slides is used. Code selection is based on the screening process used, with manual screening under physician supervision being reported with 88150, manual screening and computer-assisted rescreening under physician supervision with 88152, manual screening and rescreening under physician supervision with 88153, manual screening and computer-assisted rescreening using cell selection and review under physician supervision with 88154.

Coding Tips
Note that codes 88141 and 88155 are add-on codes and must be used in conjunction with codes 88142–88154, 88164–88617, and 88174–88175. Codes 88141–88155, 88164–88167, and 88174–88175 are used to report cervical or vaginal rescreening by various methods and to report physician interpretation services. Codes 88150–88154 are used to report conventional Pap smears using the non-Bethesda reporting system, codes 88164–88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142–88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88174–88175 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition to the screening method. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review. Also see HCPCS Level II codes G0123-G0124 and P3000-P3001.

ICD-9-CM Diagnostic Codes
078.11 Condyloma acuminatum
098.0 Gonococcal infection (acute) of lower genitourinary tract
098.2 Gonococcal infections, chronic, of lower genitourinary tract
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)

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88155

Cytopathology, slides, cervical or vaginal, definitive hormonal evaluation (eg, maturation index, karyopyknotic index, estrogenic index) (List separately in addition to code[s] for other technical and interpretation services)

Explanation
This test may also be identified as the maturation index, cytologic estrogen effect, karyopyknotic index, or estrogenic index. Specimen collection is by tongue depressor or wooden spatula of the lateral vaginal wall. Method is microscopy examination of a spray or liquid fixated smear. The test may be used to determine the balance of estrogen and progesterone of the vaginal squamous epithelium.

Coding Tips
Codes 88141-88155, 88164-88167, and 88174-88175 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150-88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164-88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142-88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88142-88143 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition to services that are provided. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review.

ICD-9-CM Diagnostic Codes
054.11 Herpetic vulvovaginitis
078.11 Condyloma acuminatum
098.0 Gonococcal infection (acute) of lower genitourinary tract
098.2 Gonococcal infections, chronic, of lower genitourinary tract
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
131.01 Trichomonal vulvovaginitis
180.0 Malignant neoplasm of endocervix
180.1 Malignant neoplasm of exocervix
184.0 Malignant neoplasm of vagina
198.82 Secondary malignant neoplasm of genital organs
219.0 Benign neoplasm of cervix uteri
219.1 Benign neoplasm of corpus uteri
233.1 Carcinoma in situ of cervix uteri
616.0 Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
616.11 Vaginitis and vulvovaginitis in diseases classified elsewhere — (Use additional code to identify organism:

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.2; 100-3,210.2

CCI Version 20.0
88104-88106, 88108, 88387
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88164-88167

88164 Cytopathology, slides, cervical or vaginal (the Bethesda System); manual screening under physician supervision
88165 with manual screening and rescreening under physician supervision
88166 with manual screening and computer-assisted rescreening under physician supervision
88167 with manual screening and computer-assisted rescreening using cell selection and review under physician supervision

Explanation
These tests may be identified as a cervical smear, Pap smear, or vaginal cytology. Specimen collection is by scraping or brushing the cervix or endocervix, or aspiration of vaginal fluid. Method is microscopy examination of a spray or liquid coated smear. These codes should be reported when the Bethesda System of evaluating and describing cervical/vaginal cytopathology slides is used. Code selection is based on the screening process used, with manual screening under physician supervision being reported with 88164, manual screening and rescreening under physician supervision with 88165, manual screening and computer-assisted rescreening under physician supervision with 88166, manual screening and computer-assisted rescreening using cell selection and review under physician supervision with 88167.

Coding Tips
Codes 88141-88155, 88164-88167, and 88174-88175 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150-88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164-88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142-88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88174-88175 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition services are provided. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review.

ICD-9-CM Diagnostic Codes
054.11 Herpetic vulvovaginitis
078.11 Condyloma acuminatum
098.0 Gonococcal infection (acute) of lower genitourinary tract
098.2 Gonococcal infections, chronic, of lower genitourinary tract
112.1 Candidiasis of vulva and vagina — (Use additional code to identify manifestation: 321.0-321.1, 380.15, 711.6)
131.01 Trichomonal vulvovaginitis
180.0 Malignant neoplasm of endocervix
180.1 Malignant neoplasm of exocervix
184.0 Malignant neoplasm of vagina
219.0 Benign neoplasm of cervix uteri
219.1 Benign neoplasm of corpus uteri
233.1 Carcinoma in situ of cervix uteri
616.0 Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
616.2 Cyst of Bartholin’s gland — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)
622.0 Erosion and ectropion of cervix
622.11 Mild dysplasia of cervix
622.12 Moderate dysplasia of cervix
626.2 Excessive or frequent menstruation
626.3 Postmenopausal bleeding
626.4 Symptomatic menopausal or female climacteric states
627.3 Postmenopausal atrophic vaginitis
795.00 Abnormal glandular Papanicolaou smear of cervix
795.01 Papanicolaou smear of cervix with atypical squamous cells of undetermined significance (ASC-US)
795.02 Papanicolaou smear of cervix with atypical squamous cells cannot exclude high grade squamous intraepithelial lesion (ASC-H)
795.03 Papanicolaou smear of cervix with low grade squamous intraepithelial lesion (LSIL)
795.04 Papanicolaou smear of cervix with high grade squamous intraepithelial lesion (HSIL)
795.05 Cervical high risk human papillomavirus (HPV) DNA test positive

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.2; 100-3,210.2

CCI Version 20.0
88387, G0123, G0143-G0148, P3000
Also not with 88164: 88104-88106, 88108, 88150, 88160-88162
Also not with 88165: 88147, 88150, 88153, 88164
Also not with 88166: 88108, 88147-88150, 88152-88153, 88164-88165
Also not with 88167: 88147-88150, 88152-88154, 88164-88166
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88172-88173 (88177)

88172  Cytopathology, evaluation of fine needle aspirate; immediate cytohistologic study to determine adequacy for diagnosis, first evaluation episode, each site

88173  interpretation and report

88177  immediate cytohistologic study to determine adequacy for diagnosis, each separate additional evaluation episode, same site (List separately in addition to code for primary procedure)

Explanation
Following fine needle aspiration (a procedure in which fluid or tissue is extracted using a long slender needle), the aspirated cells are often immediately examined microscopically by a physician in order to determine that diagnostic material is present. A preliminary diagnostic assessment may be rendered at that time in order to avoid a repeat operative procedure. Report 88172 for the first evaluation episode (a complete set of cytologic material submitted for evaluation, regardless of the number of needle passes or prepared slides) of each site and 88177 for each separate additional evaluation episode of the same site. Code 88173 reports the final interpretation and report from each anatomic site, regardless of the number of evaluation episodes or needle passes performed during the aspiration procedure.

Coding Tips
Code 88177 is a resequenced code and will not display in numeric order. As an add-on code, 88177 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. Code 88177 should be reported with code 88172. An evaluation episode is defined as a complete set of cytologic material submitted for evaluation. The number of needle passes or slides does not affect code assignment. A separate evaluation episode occurs when a separate lesion is aspirated or when additional material from the same site is obtained because of an adequacy assessment immediately prior to obtaining the specimen. Code 88173 should be reported with a unit value of 1 regardless of the number of passes or evaluation episodes performed. When immediate evaluation is performed on subsequent aspirate after a prior sampling was determined to be not adequate for diagnosis, code 88177 should be reported with a unit of 1.

Terms To Know

aspirate. To withdraw fluid or air from a body cavity by suction.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

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CCI Version 20.0
88387
Also not with 88172: 88162ϕ, 88329, 88334, 88387-88388
Also not with 88173: 88108-88112ϕ, 88329, 88333-88334
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**88174-88175**

**88174** Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; screening by automated system, under physician supervision

**88175** with screening by automated system and manual rescreening or review, under physician supervision

**Explanation**
These tests may be identified by the brand name ThinPrep. Specimen collection is by cervical or endocervical scraping or aspiration of vaginal fluid. Report 88174 for automated screening done under physician supervision and 88175 when automated screening is followed by manual rescreening or review under physician supervision.

**Coding Tips**
Codes 88141-88155, 88164-88167, and 88174-88175 are used to report cervical or vaginal screening by various methods and to report physician interpretation services. Codes 88150-88154 are used to report conventional Pap smears using the non-Bethesda reporting system. Codes 88164-88167 are used to report conventional Pap smears using the Bethesda reporting system. Codes 88142-88143 are used to report liquid-based specimens processed as thin-layer preparations that are examined using any system of reporting. Codes 88174-88175 report automated screening of liquid-based specimens that are examined using any system of reporting. Within each of these three code families, choose the one code that describes the screening method used. Codes 88141 and 88155 should be reported in addition to services that are provided. Manual rescreening requires a complete visual reassessment of the entire slide initially screened by either an automated or manual process. Manual review represents an assessment of selected cells or regions of a slide identified by initial automated review.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>Herpetic vulvovaginitis</td>
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<td>078.11</td>
<td>Condyloma acuminatum</td>
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<td>098.0</td>
<td>Gonococcal infection (acute) of lower genitourinary tract</td>
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<td>098.2</td>
<td>Gonococcal infections, chronic, of lower genitourinary tract</td>
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<td>112.1</td>
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<td>131.01</td>
<td>Trichomonal vaginitis</td>
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<td>180.0</td>
<td>Malignant neoplasm of endocervix</td>
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<td>180.1</td>
<td>Malignant neoplasm of exocervix</td>
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<td>184.0</td>
<td>Malignant neoplasm of vagina</td>
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<td>616.0</td>
<td>Cervicitis and endocervicitis — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)</td>
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<td>616.11</td>
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<td>616.2</td>
<td>Cyst of Bartholin's gland — (Use additional code to identify organism: 041.00-041.09, 041.10-041.19)</td>
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Flow cytometry allows a single cell to be measured for a variety of characteristics that are determined as the cell flows in a liquid. Information about the cells is gathered by measuring visible and fluorescent light emissions. Specimen collection is by biopsy or needle biopsy for tissue and bone marrow; blood is drawn by venipuncture. To perform DNA or cell cycle analysis, the cells are first stained with a fluorescent dye. Flow analysis is performed to determine a cell’s DNA content. Cell cycle analysis performed by cell cytometry can determine a cell’s position in the cell cycle based on its DNA content.

Coding Tips
To report tumor morphometry and DNA and ploidy analysis for imaging technique, consult CPT code 88358.

ICD-9-CM Diagnostic Codes
202.81 Other malignant lymphomas of lymph nodes of head, face, and neck
202.82 Other malignant lymphomas of intrathoracic lymph nodes
202.83 Other malignant lymphomas of intra-abdominal lymph nodes
202.84 Other malignant lymphomas of lymph nodes of axilla and upper limb
202.85 Other malignant lymphomas of lymph nodes of inguinal region and lower limb
202.86 Other malignant lymphomas of intrapelvic lymph nodes
202.87 Other malignant lymphomas of spleen
202.88 Other malignant lymphomas of lymph nodes of multiple sites
204.00 Acute lymphoid leukemia, without mention of having achieved remission
204.01 Acute lymphoid leukemia in remission
204.02 Acute lymphoid leukemia, in relapse
205.00 Acute myeloid leukemia, without mention of having achieved remission
205.01 Acute myeloid leukemia in remission
205.02 Acute myeloid leukemia, in relapse
208.00 Acute leukemia of unspecified cell type, without mention of having achieved remission
208.01 Acute leukemia of unspecified cell type in remission
208.02 Acute leukemia of unspecified cell type, in relapse
238.79 Other lymphatic and hematopoietic tissues
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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**Explanation**

This code is used to report lymphocyte culture for nonneoplastic disorders, which would include chromosome analysis as well as other cytogenetic studies. Cytogenetics is the branch of genetics that studies cellular (cyto) structure and function as it relates to heredity (genetics). White blood cells, specifically T-lymphocytes, are the most commonly used specimen for chromosome analysis. A peripheral blood specimen is obtained by venipuncture. The blood is separated into its cellular constituents and the white blood cells are extracted. The white blood cells are placed in a tissue culture medium. White blood cells, specifically T-lymphocytes, are stimulated with phytohemagglutinin (PHA) and grown in the tissue culture.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239 in addition to one or more codes from CPT codes 88245-88299. When molecular diagnostic studies are performed to test for oncology or inherited disorders, the appropriate genetic testing modifier should be appended. To report molecular pathology procedures not described by one of these codes may be reported using 81479. Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. When venipuncture on a patient 3 years of age or older requires the skill of a physician or other qualified health care provider, see code 36410. For venipuncture on a patient younger than 3 years of age performed by a physician or other qualified health care provider, see codes 36400-36406. Most third-party payers and state scope of work exclude the use of a code requiring the skill of a phlebotomist, or other unlicensed clinical staff. If a specimen is transported to an outside laboratory, report code 99000 for handling.

**Terms To Know**

- **culture.** Growth of microorganisms in a medium conducive to their development.
- **neoplasm.** New abnormal growth, tumor.

**ICD-9-CM Diagnostic Codes**

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<th>Code</th>
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<td>Abdominal actinomycotic infection</td>
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<td>039.9</td>
<td>Actinomycotic infection of unspecified site</td>
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<td>Whipple's disease</td>
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<td>135</td>
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<td>Amyloidosis, unspecified — (Use additional code to identify any associated intellectual disabilities)</td>
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<td>277.89</td>
<td>Other specified disorders of metabolism — (Use additional code to identify any associated intellectual disabilities)</td>
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Tissue culture for non-neoplastic disorders; skin or other solid tissue biopsy

Explanation
This code is used to report culturing of skin cells or other solid tissue cells for evaluation of nonneoplastic disorders (i.e., chromosome analysis and other cytogenetic studies). Cytogenetics is the branch of genetics that studies cellular (cyto) structure and function as it relates to heredity (genetics). Skin cells may be obtained by buccal smear or separately reportable biopsy. Solid tissue specimen requires separately reportable biopsy. Skin or other solid tissue cells are placed in a tissue culture medium. The cells are stimulated and grown in the tissue culture.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
biopsy. Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.

bone marrow. Soft tissue found filling the cavities of bones, consisting of two types: yellow and red. Red bone marrow is a hematopoietic tissue that manufactures various cellular components of blood, such as platelets and red and white blood cells. Yellow marrow consists mostly of fat cells and is found in the medullary cavities of large bones. Bone marrow is a network of connective tissue of branching fibers forming a frame-like structure, filled with marrow cells. Bone marrow is harvested and transplanted for its progenitor or stem cells in cases of leukemia and other diseases. Marrow is used in spinal fusion to provide osteoprogenitor cells to mix with the allograft and form strong bone fusion. Bone marrow is biopsied to help diagnose many diseases of the blood, based on the distribution and formation of various blood cells. Bone marrow procedures are reported with CPT codes 38204-38242.

ICD-9-CM Diagnostic Codes
750.7 Other specified congenital anomalies of stomach
750.8 Other specified congenital anomalies of upper alimentary tract
750.9 Unspecified congenital anomaly of upper alimentary tract
751.0 Meckel's diverticulum
751.1 Congenital atresia and stenosis of small intestine
751.2 Congenital atresia and stenosis of large intestine, rectum, and anal canal
751.3 Hirschsprung's disease and other congenital functional disorders of colon
751.4 Congenital anomalies of intestinal fixation
751.5 Other congenital anomalies of intestine
751.62 Congenital cystic disease of liver
751.69 Other congenital anomaly of gallbladder, bile ducts, and liver
751.7 Congenital anomalies of pancreas
751.8 Other specified congenital anomalies of digestive system
752.32 Hypoplasia of uterus
752.40 Unspecified congenital anomaly of cervix, vagina, and external female genitalia
752.41 Embryonic cyst of cervix, vagina, and external female genitalia
752.9 Unspecified congenital anomaly of genital organs
753.10 Unspecified congenital cystic kidney disease
753.11 Congenital single renal cyst
753.12 Congenital polycystic kidney, unspecified type
753.13 Congenital polycystic kidney, autosomal dominant
753.14 Congenital polycystic kidney, autosomal recessive
753.15 Congenital renal dysplasia
753.16 Congenital medullary cystic kidney
753.17 Congenital medullary sponge kidney
753.19 Other specified congenital cystic kidney disease

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3

CCI Version 20.0
No CCI Edits apply to this code.
Explanation
This code is used to report culturing of fetal cells for evaluation of nonneoplastic disorders (i.e., chromosome analysis and other cytogenetic studies). Cytogenetics is the branch of genetics that studies cellular (cyto) structure and function as it relates to heredity (genetics). Fetal cells are normally cultured to detect chromosome abnormalities and sex-linked disorders. A separately reportable amniocentesis or chorionic villus sampling is performed. Culture and growth of an adequate number of fetal cells for analysis may require two to three weeks.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479. To report amniocentesis, consult CPT code 59000. To report chorionic villus sampling, consult CPT code 59015.

Terms To Know
amniocentesis. Surgical puncture through the abdominal wall, with a specialized needle and under ultrasonic guidance, into the interior of the pregnant uterus and directly into the amniotic sac to collect fluid for diagnostic analysis or therapeutic reduction of fluid levels. Report cases of newborns affected by amniocentesis with ICD-9-CM code 760.61. Amniocentesis is reported with CPT codes 59000 and 59001. These procedures are excluded from the maternity care global package. Synonym(s): diagnostic amniocentesis, therapeutic amniotic fluid reduction.

ICD-9-CM Diagnostic Codes
655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.11 Chromosomal abnormality in fetus, affecting management of mother, with delivery
655.13 Chromosomal abnormality in fetus, affecting management of mother, antepartum
655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.21 Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery
655.23 Hereditary disease in family possibly affecting fetus, affecting management of mother, antepartum condition or complication
758.0 Down’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
88237

Tissue culture for neoplastic disorders; bone marrow, blood cells

Explanation
This code is used to report tissue culture only of bone marrow or blood cells for the purpose of evaluating neoplastic, usually malignant, disorders. Many neoplastic disorders have a genetic origin and therefore cytogenetic studies aid in diagnosis and are prognostic indicators. In addition, they may identify individuals at high risk for developing certain cancers. Bone marrow is obtained by separately reportable biopsy. Blood specimen is whole blood. The marrow and blood cells may be separated by cell type. The cells are placed in a tissue culture medium, which stimulates cell growth.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
neoplasm. New abnormal growth, tumor.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
<th>Description</th>
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<td>204.02</td>
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<td>204.12</td>
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IOM References
100-2,15,80.1; 100-3,190.3

CCI Version 20.0
No CCI Edits apply to this code.
**Explanation**

This code is used to report tissue culture only of solid tumor cells for the purpose of evaluating neoplastic, usually malignant, disorders. Many neoplastic disorders have a genetic origin and therefore cytogenetic studies aid in diagnosis and are prognostic indicators. Translocations and deletions of nuclear DNA are especially common in the chromosomes of tumor cells, which makeup is different from that of normal somatic cells. This code reports cell culture prepared from a biopsied or resected solid tumor. The cells are placed in a tissue culture medium, which stimulates cell growth.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**

- **biopsy.** Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.
- **culture.** Growth of microorganisms in a medium conducive to their development.
- **specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>152.1</td>
<td>Malignant neoplasm of jejunum</td>
</tr>
<tr>
<td>152.2</td>
<td>Malignant neoplasm of ileum</td>
</tr>
<tr>
<td>152.3</td>
<td>Malignant neoplasm of Meckel's diverticulum</td>
</tr>
<tr>
<td>152.8</td>
<td>Malignant neoplasm of other specified sites of small intestine</td>
</tr>
<tr>
<td>158.0</td>
<td>Malignant neoplasm of retroperitoneum</td>
</tr>
<tr>
<td>171.0</td>
<td>Malignant neoplasm of connective and other soft tissue of head, face, and neck</td>
</tr>
<tr>
<td>171.3</td>
<td>Malignant neoplasm of connective and other soft tissue of lower limb, including hip</td>
</tr>
<tr>
<td>171.6</td>
<td>Malignant neoplasm of connective and other soft tissue of pelvis</td>
</tr>
<tr>
<td>171.7</td>
<td>Malignant neoplasm of connective and other soft tissue of trunk, unspecified site</td>
</tr>
<tr>
<td>188.0</td>
<td>Malignant neoplasm of trigone of urinary bladder</td>
</tr>
<tr>
<td>188.1</td>
<td>Malignant neoplasm of dome of urinary bladder</td>
</tr>
<tr>
<td>191.0</td>
<td>Malignant neoplasm of cerebrum, except lobes and ventricles</td>
</tr>
<tr>
<td>191.1</td>
<td>Malignant neoplasm of frontal lobe of brain</td>
</tr>
<tr>
<td>191.2</td>
<td>Malignant neoplasm of temporal lobe of brain</td>
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<td>191.5</td>
<td>Malignant neoplasm of ventricles of brain</td>
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<tr>
<td>197.4</td>
<td>Secondary malignant neoplasm of small intestine including duodenum</td>
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<tr>
<td>202.80</td>
<td>Other malignant lymphomas, unspecified site, extranodal and solid organ sites</td>
</tr>
<tr>
<td>202.81</td>
<td>Other malignant lymphomas of lymph nodes of head, face, and neck</td>
</tr>
<tr>
<td>203.00</td>
<td>Multiple myeloma, without mention of having achieved remission</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3, 190.3

**CCI Version 20.0**

No CCI Edits apply to this code.
88240

88240  Cryopreservation, freezing and storage of cells, each cell line

**Explanation**

Cryopreservation is a technique of freezing and maintaining cells at extremely low temperatures to preserve the genetic and metabolic properties of the cell. Cryopreservation is performed to allow storage of cells for subsequent culture and analysis at a reference laboratory. Report this code for each cell line. A cell line is considered one that holds the potential for indefinite subculture in a lab setting.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479. To report therapeutic cryopreservation and storage, consult CPT code 38207.

**Terms To Know**

- **genetic test.** Test that is able to detect a gene mutation, either inherited or caused by the environment.
- **specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

- 152.1  Malignant neoplasm of jejunum
- 152.2  Malignant neoplasm of ileum
- 152.3  Malignant neoplasm of Meckel's diverticulum
- 171.0  Malignant neoplasm of connective and other soft tissue of head, face, and neck
- 171.3  Malignant neoplasm of connective and other soft tissue of lower limb, including hip
- 171.4  Malignant neoplasm of connective and other soft tissue of thorax
- 188.6  Malignant neoplasm of ureteric orifice
- 188.7  Malignant neoplasm of urachus
- 191.3  Malignant neoplasm of parietal lobe of brain
- 191.4  Malignant neoplasm of occipital lobe of brain
- 204.10  Chronic lymphoid leukemia, without mention of having achieved remission
- 204.11  Chronic lymphoid leukemia in remission
- 205.21  Subacute myeloid leukemia in remission
- 205.22  Subacute myeloid leukemia, in relapse
- 206.02  Acute monocytic leukemia, in relapse
- 238.72  Low grade myelodysplastic syndrome lesions
- 238.73  High grade myelodysplastic syndrome lesions
- 756.51  Osteogenesis imperfecta
- 756.54  Polyostotic fibrous dysplasia of bone
- 756.55  Chondroectodermal dysplasia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.3; 100-4,3,90.3.3; 100-4,4,231.11

**CCI Version 20.0**

0058T-0059T, 86930, 89258-89259

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Thawing and expansion of frozen cells, each aliquot

**Explanation**
Cells frozen by cryopreservation are thawed and expanded (amplified) for study. Report each aliquot separately. An aliquot refers to the equal division of a sample of a substance, with each part related quantitatively to each other and to the sample as a whole.

**Coding Tips**
To report therapeutic thawing of previous harvest, consult CPT code 38208. To report molecular pathology procedures see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**
aliquot. Small portion of a specimen taken for an assay.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
152.1 Malignant neoplasm of jejunum
152.2 Malignant neoplasm of ileum
152.3 Malignant neoplasm of Meckel’s diverticulum
171.0 Malignant neoplasm of connective and other soft tissue of head, face, and neck
171.3 Malignant neoplasm of connective and other soft tissue of lower limb, including hip
171.4 Malignant neoplasm of connective and other soft tissue of thorax
188.6 Malignant neoplasm of ureteric orifice
188.7 Malignant neoplasm of urachus
191.3 Malignant neoplasm of parietal lobe of brain
191.4 Malignant neoplasm of occipital lobe of brain
204.10 Chronic lymphoid leukemia, without mention of having achieved remission
204.11 Chronic lymphoid leukemia in remission
205.21 Subacute myeloid leukemia in remission
205.22 Subacute myeloid leukemia, in relapse
206.02 Acute monocytic leukemia, in relapse
238.72 Low grade myelodysplastic syndrome lesions
238.73 High grade myelodysplastic syndrome lesions
756.51 Osteogenesis imperfecta
756.54 Polysostotic fibrous dysplasia of bone
756.55 Chondroectodermal dysplasia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Chromosome analysis for breakage syndromes; baseline Sister Chromatid Exchange (SCE), 20-25 cells

Explanation
This cytogenetic study may be requested as a chromosome breakage analysis, sister chromatid exchange (SCE) study, or a chromosome instability test. This test involves evaluation for increased sister chromatid exchange (SCE) of 20 to 25 cells. This exchange refers to the crossing over of genetic information between the sister chromatids. This analysis is specifically for chromosome breakage syndromes, which are characterized by an increased rate of SCE during cell division where exact duplication of the genetic information in each chromatid fails to occur. Instead, genetic information is rearranged between the sister chromatids during cell division. This test would normally use more traditional techniques, such as direct microscopic analysis of cells arrested in metaphase.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT range 88230-88239 in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
191.8 Malignant neoplasm of other parts of brain
202.80 Other malignant lymphomas, unspecified site, extranodal and solid organ sites
205.90 Unspecified myeloid leukemia, without mention of having achieved remission
206.80 Other monocytic leukemia, without mention of having achieved remission
208.80 Other leukemia of unspecified cell type, without mention of having achieved remission
238.79 Other lymphatic and hematopoietic tissues
284.09 Other constitutional aplastic anemia
757.33 Congenital pigmentary anomaly of skin
757.39 Other specified congenital anomaly of skin
758.33 Autosomal deletion syndromes, other microdeletions — (Use additional codes for conditions associated with the chromosomal anomalies)

758.39 Autosomal deletion syndromes, other autosomal deletions — (Use additional codes for conditions associated with the chromosomal anomalies)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3, 190.3

CCI Version 20.0
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Chromosome analysis for breakage syndromes; baseline breakage, score 50-100 cells, count 20 cells, 2 karyotypes (eg, for ataxia telangiectasia, Fanconi anemia, fragile X).

**Explanation**
This test may be requested by the name of the specific breakage syndrome being evaluated. Examples include Ataxia-telangiectasia (A-T) breakage study, Fanconi anemia (FA) breakage study, Fragile X breakage study, and Xeroderma pigmentosum (XP) chromosome breakage study. It may also be requested simply as a chromosome breakage study or chromosome instability study. Fragile sites along the chromosome that may appear as bent or partially detached fragments characterize chromosome breakage syndromes. The specific location of the fragile site determines the characteristics of the specific syndrome. The syndrome is associated with a moderate degree of intellectual delay. The procedure includes collecting 50 to 100 cells, counting 20, and performing two karyotypes. A karyotype is a visual exam of each chromosome pair from cells arrested in metaphase.

**Coding Tips**
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**
- 202.80 Other malignant lymphomas, unspecified site, extranodal and solid organ sites
- 204.90 Unspecified lymphoid leukemia, without mention of having achieved remission
- 206.80 Other monocytic leukemia, without mention of having achieved remission
- 237.71 Neurofibromatosis, Type 1 (von Recklinghausen’s disease)
- 237.72 Neurofibromatosis, Type 2 (acoustic neurofibromatosis)
- 284.09 Other constitutional aplastic anemia
- 334.8 Other spinocerebellar diseases
- 742.9 Unspecified congenital anomaly of brain, spinal cord, and nervous system
- 757.33 Congenital pigmentary anomaly of skin
- 759.83 Fragile X syndrome

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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<th>Procedure Code</th>
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**88249**  
**Chromosome analysis for breakage syndromes; score 100 cells, clastogen stress (e.g., diepoxybutane, mitomycin C, ionizing radiation, UV radiation)**

**Explanation**
This code reports a specific technique for analysis of breakage syndromes involving clastogen stress. Clastogen is a substance (e.g., chemical or radiation) that causes chromosome breakage when applied to the cell. Some substances that can be used as clastogens include diepoxybutane, mitomycin C, ionizing radiation, and UV radiation. When applied to the cells, these clastogens will identify fragile sites on the chromosome. The location of the fragile site is used to diagnose the specific breakage syndrome. The code includes the scoring of 100 cells.

**Coding Tips**
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**
- 200.20 Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites
- 201.90 Hodgkin's disease, unspecified type, unspecified site, extranodal and solid organ sites
- 202.00 Nodular lymphoma, unspecified site, extranodal and solid organ sites
- 205.80 Other myeloid leukemia, without mention of having achieved remission
- 208.90 Unspecified leukemia, without mention of having achieved remission
- 238.72 Low grade myelodysplastic syndrome lesions
- 238.73 High grade myelodysplastic syndrome lesions
- 238.74 Myelodysplastic syndrome with 5q deletion
- 238.75 Myelodysplastic syndrome, unspecified
- 238.76 Myelofibrosis with myeloid metaplasia
- 238.77 Post-transplant lymphoproliferative disorder [PTLD] — (Code first complications of transplant (996.80-996.89))
- 238.79 Other lymphatic and hematopoietic tissues
- 284.09 Other constitutional aplastic anemia

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

<table>
<thead>
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<th>Work Value</th>
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</tbody>
</table>

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CPT © 2014 American Medical Association. All Rights Reserved.
These codes are reported for chromosome analysis to detect certain inherited disorders or syndromes, excluding breakage syndromes. The chromosomes of individuals with suspected genetic anomalies and neoplastic disorders are analyzed to provide definitive diagnosis. In addition, suspected carriers may be analyzed for recessive traits that may affect, or have affected, their offspring. Code 88261 should be reported for a five-cell count and one karyotype, with banding. Code 88262 should be reported for a 15 to 20-cell count and two karyotypes, with banding. Karyotype is the full chromosome set that genetically defines an individual. Banding refers to the appearance of stripes on stained paired bundles of chromosomes. This test would normally use more traditional techniques, such as direct microscopic analysis of cells arrested in metaphase.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**

- **genetic test**: Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**

- 259.0 Delay in sexual development and puberty, not elsewhere classified
- 288.8 Other specified disease of white blood cells
- 655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
- 655.11 Chromosomal abnormality in fetus, affecting management of mother, with delivery
- 655.13 Chromosomal abnormality in fetus, affecting management of mother, antepartum
- 655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
- 655.21 Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery
- 655.23 Hereditary disease in family possibly affecting fetus, affecting management of mother, antepartum condition or complication

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<th>Work Value</th>
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</table>

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Chromosome analysis; count 45 cells for mosaicism, 2 karyotypes, with banding

Explanation
This code is reported for chromosome analysis of 45 cells for the presence of mosaicism. It includes two karyotypes with banding. Mosaicism refers to alterations in chromosomes that do not affect every somatic (non-sex cell) chromosome, but are manifested during embryonic development. The individual is said to have two or more cell lines of different genetic or chromosomal make-up. Karyotype is the full chromosome set that genetically defines an individual. Banding refers to the appearance of stripes on stained paired bundles of chromosomes. This test would normally use more traditional techniques, such as direct microscopic analysis of cells arrested in metaphase.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know

Genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
259.0 Delay in sexual development and puberty, not elsewhere classified
288.8 Other specified disease of white blood cells
655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.11 Chromosomal abnormality in fetus, affecting management of mother, with delivery
655.13 Chromosomal abnormality in fetus, affecting management of mother, antepartum
655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.21 Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery
655.23 Hereditary disease in family possibly affecting fetus, affecting management of mother, antepartum condition or complication
754.0 Congenital musculoskeletal deformities of skull, face, and jaw
754.1 Congenital musculoskeletal deformity of sternomcleidomastoid muscle
754.2 Congenital musculoskeletal deformity of spine
758.0 Down’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.1 Patau’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.2 Edwards’ syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.31 Cri-du-chat syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.32 Velo-cardio-facial syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.33 Autosomal deletion syndromes, other microdeletions — (Use additional codes for conditions associated with the chromosomal anomalies)
758.39 Autosomal deletion syndromes, other autosomal deletions — (Use additional codes for conditions associated with the chromosomal anomalies)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3

CCI Version 20.0
80500-80502, 88261-88262

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
This test reports chromosome analysis related to malignant neoplasms (cancer). Cancer cytogenetics requires complete analysis (not just counting) of 20-25 cells. Chromosome analysis is performed to identify specific chromosomal anomalies, which can aid in diagnosis and provide prognostic indicators for certain cancers. In addition, identification of aberrant chromosomal bands provides information on the specific genes affected in certain malignancies. Individuals with family histories indicating a high risk for certain types of cancer can be tested to determine whether they carry the aberrant bands.

**Coding Tips**
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis</th>
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<tbody>
<tr>
<td>152.8</td>
<td>Malignant neoplasm of other specified sites of small intestine</td>
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<td>158.0</td>
<td>Malignant neoplasm of retroperitoneum</td>
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<td>171.8</td>
<td>Malignant neoplasm of other specified sites of connective and other soft tissue</td>
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<td>188.8</td>
<td>Malignant neoplasm of other specified sites of bladder</td>
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<td>191.6</td>
<td>Malignant neoplasm of cerebellum NOS</td>
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<td>191.7</td>
<td>Malignant neoplasm of brain stem</td>
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<td>191.8</td>
<td>Malignant neoplasm of other parts of brain</td>
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<td>238.72</td>
<td>Low grade myelodysplastic syndrome lesions</td>
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<td>238.73</td>
<td>High grade myelodysplastic syndrome lesions</td>
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<tr>
<td>238.74</td>
<td>Myelodysplastic syndrome with 5q deletion</td>
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<td>238.75</td>
<td>Myelodysplastic syndrome, unspecified</td>
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<td>238.76</td>
<td>Myelofibrosis with myeloid metaplasia</td>
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<td>756.16</td>
<td>Klippel-Feil syndrome</td>
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<td>Spina bifida occulta</td>
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<td>756.19</td>
<td>Other congenital anomaly of spine</td>
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<td>758.6</td>
<td>Gonadal dysgenesis — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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<tr>
<td>758.7</td>
<td>Klinefelter's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3, 190.3

**CCI Version 20.0**

80500-80502, 88261-88262

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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</table>
88267

Chromosome analysis, amniotic fluid or chorionic villus, count 15 cells, 1 karyotype, with banding

Explanation
This is a prenatal technique used to analyze chromosomes from cells of extracted amniotic fluid or chorionic villus for possible genetic abnormalities that can be detected during embryonic development.

The code includes a 15-cell count, one karyotype, with banding. Karyotype is the full chromosome set that genetically defines an individual. Banding refers to the appearance of stripes on stained paired bundles of chromosomes. This test would normally use more traditional techniques, such as direct microscopic analysis of cells arrested in metaphase with Giemsa or quinacrine banding techniques.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
740.0 Anencephalus
740.1 Craniorachischisis
740.2 Iniencephaly
742.0 Encephalocele
742.1 Microcephalus
742.2 Congenital reduction deformities of brain
742.3 Congenital hydrocephalus
742.59 Other specified congenital anomaly of spinal cord
742.8 Other specified congenital anomalies of nervous system

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3
88269
Chromosome analysis, in situ for amniotic fluid cells, count cells from 6-12 colonies, 1 karyotype, with banding

Explanation
This is a prenatal technique used to analyze intact chromosomes within the cells of amniotic fluid for possible genetic abnormalities that can be detected during embryonic development. The code includes a cell count from six to 12 colonies, one karyotype, with banding. Karyotype is the full chromosome set that genetically defines an individual. Banding refers to the appearance of stripes on stained paired bundles of chromosomes. By studying the occurrence of different DNA bands in the population, one can calculate the probability of two DNA samples matching one another. Any number of methods may be used, including polymerase chain reaction (PCR), restriction fragment length polymorphism (RFLP), and Northern or Southern blot.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
- **genetic test**: Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
- 655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
- 655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
- 740.0 Anencephalus
- 740.1 Craniarachischisis
- 740.2 Iniencephaly
- 742.0 Encephalocele
- 742.1 Microcephalus
- 742.2 Congenital reduction deformities of brain
- 742.3 Congenital hydrocephalus
- 742.59 Other specified congenital anomaly of spinal cord
- 742.8 Other specified congenital anomalies of nervous system

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3

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CCI Version 20.0
80500-80502, 88267
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Molecular cytogenetics represents relatively new techniques capable of detecting changes in chromosomes that cannot be detected by traditional microscopic techniques. This code reports the use of a DNA probe to identify chromosomal abnormalities. Fluorescent in situ hybridization (FISH) is one type of DNA probe. It allows chromosomes and genes to be analyzed simultaneously. In situ hybridization involves treating native double-stranded DNA to render it single-stranded. The strand is incubated to allow the strand to recognize complementary bases and to reform as a double-strand (hybridization). When a strand is radioactively marked, it is the "probe." The specificity to which the hybridization takes place is analyzed.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). To report cytogonomic microarray analysis, see codes 81288, 81299, 81405, 81406, or 81479. Analyte-specific molecular pathology procedure are not reported separately when the specific analytes are included as part of the microarray analysis of the X chromosome. Do not report this code additionally when the procedure is performed.

Terms To Know
DNA. Deoxyribonucleic acid.
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
288.8 Other specified disease of white blood cells
740.0 Anencephalus
740.1 Craniorachischisis
740.2 Iniencephaly
741.00 Spina bifida with hydrocephalus, unspecified region
741.01 Spina bifida with hydrocephalus, cervical region
741.02 Spina bifida with hydrocephalus, dorsal (thoracic) region
741.03 Spina bifida with hydrocephalus, lumbar region
742.2 Congenital reduction deformities of brain
742.3 Congenital hydrocephalus
756.16 Klippel-Feil syndrome
756.17 Spina bifida occulta
756.19 Other congenital anomaly of spine
756.51 Osteogenesis imperfecta
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Molecular cytogenetics; chromosomal in situ hybridization, analyze 3-5 cells (eg, for derivatives and markers)

chromosomal in situ hybridization, analyze 10-30 cells (eg, for microdeletions)

Explanation
Molecular cytogenetics represent relatively new techniques capable of detecting changes in chromosomes that cannot be detected by traditional microscopic techniques. In situ hybridization is the base pairing of a sequence of DNA to chromosomes on a microscope slide. The technique involves printing thousands of protein-coded DNA (cDNA) clones on a single microscope slide. Fluorescent cDNA probes prepared from any cell or tissue source of interest are paired to provide a large-scale view of gene expression. In situ hybridization is used to determine the consequences of a given genetic alteration on gene expression. Report 88272 when three to five cells are analyzed usually to identify derivatives and markers. Report 88273 when 10 to 30 cells are analyzed usually for the purpose of identifying microdeletions. A microdeletion involves the removal or acquired absence of one or more nucleotides from a gene or chromosome.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
DNA. Deoxyribonucleic acid.
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
288.8 Other specified disease of white blood cells
740.0 Anencephalus
740.1 Craniorachischisis
740.2 Iniencephaly
741.00 Spina bifida with hydrocephalus, unspecified region
741.01 Spina bifida with hydrocephalus, cervical region
741.02 Spina bifida with hydrocephalus, dorsal (thoracic) region
741.03 Spina bifida with hydrocephalus, lumbar region
742.2 Congenital reduction deformities of brain
742.3 Congenital hydrocephalus
756.16 Klippel-Feil syndrome
756.17 Spina bifida occulta
756.19 Other congenital anomaly of spine
756.51 Osteogenesis imperfecta

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**88274-88275**

88274  Molecular cytogenetics; interphase in situ hybridization, analyze 25-99 cells  
88275  interphase in situ hybridization, analyze 100-300 cells

**Explanation**

Molecular cytogenetics represent relatively new techniques capable of detecting changes in chromosomes that cannot be detected by traditional microscopic techniques. In situ hybridization is the base pairing of a sequence of DNA to chromosomes on a microscope slide. In situ hybridization is used to determine the consequences of a given genetic alteration on gene expression. Report 88274 for in situ hybridization techniques used during interphase (resting phase) of cell division, for analyzing 25 to 99 cells. When 100 to 300 cells are analyzed report 88275.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**

DNA. Deoxyribonucleic acid.  
**genetic test.** Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**

288.8  Other specified disease of white blood cells  
740.0  Anencephalus  
740.1  Craniorachischisis  
740.2  Iniencephaly  
741.00  Spina bifida with hydrocephalus, unspecified region  
741.01  Spina bifida with hydrocephalus, cervical region  
741.02  Spina bifida with hydrocephalus, dorsal (thoracic) region  
741.03  Spina bifida with hydrocephalus, lumbar region  
742.2  Congenital reduction deformities of brain  
742.3  Congenital hydrocephalus  
756.16  Klippel-Feil syndrome  
756.17  Spina bifida occulta  
756.19  Other congenital anomaly of spine  
756.51  Osteogenesis imperfecta

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CPT © 2014 American Medical Association. All Rights Reserved.
Chromosome analysis; additional karyotypes, each study

Explanation
This code is reported for chromosome analysis to detect certain disorders or syndromes that may be inherited. The chromosomes of individuals with suspected genetic anomalies and neoplastic disorders are analyzed to provide definitive diagnosis. In addition, suspected carriers may be analyzed for recessive traits that may affect, or have affected, their offspring. This code is used for each additional karyotype beyond the number stipulated in other chromosome analysis codes in this same section of CPT. Karyotype is the full chromosome set that genetically defines an individual. The term is also used for the standardized visual maps of chromosomal makeup, a technique used in identifying and organizing abnormalities. This test would usually involve more traditional microscopic techniques.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
DNA. Deoxyribonucleic acid.
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
288.8 Other specified disease of white blood cells
655.10 Chromosomal abnormality in fetus, affecting management of mother, unspecified as to episode of care in pregnancy
655.20 Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy
742.2 Congenital reduction deformities of brain
742.3 Congenital hydrocephalus
756.12 Congenital spondylolisthesis
756.13 Congenital absence of vertebra
756.14 Hemivertebra
756.15 Congenital fusion of spine (vertebra)
756.16 Klippel-Feil syndrome
756.17 Spina bifida occulta
758.0 Down's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.1 Patau's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.2 Edwards' syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.31 Cri-du-chat syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.32 Velo-cardio-facial syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.33 Autosomal deletion syndromes, other microdeletions — (Use additional codes for conditions associated with the chromosomal anomalies)
758.39 Autosomal deletion syndromes, other autosomal deletions — (Use additional codes for conditions associated with the chromosomal anomalies)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88283-88285

**88283**  Chromosome analysis; additional specialized banding technique (eg, NOR, C-banding)

**88285**  additional cells counted, each study

**Explanation**

These codes are used for chromosome analysis to detect certain disorders or syndromes that may be inherited. The chromosomes of individuals with suspected genetic anomalies and neoplastic disorders are analyzed to provide definitive diagnosis. In addition, suspected carriers may be analyzed for recessive traits that may affect, or have affected, their offspring. Code 88283 is used for each additional karyotype specialized banding technique, such as NOR and C-banding. C-banding is a method of identifying banding patterns based on nucleic acid content and staining. Report 88285 for additional cells counted, each study. This test would usually involve more traditional microscopic techniques.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**

DNA. Deoxyribonucleic acid.

generic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

**ICD-9-CM Diagnostic Codes**

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<td>Hereditary disease in family possibly affecting fetus, affecting management of mother, unspecified as to episode of care in pregnancy</td>
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<td>742.2</td>
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<td>742.3</td>
<td>Congenital hydrocephalus</td>
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<td>756.12</td>
<td>Congenital spondylolisthesis</td>
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<td>Congenital absence of vertebra</td>
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<td>756.14</td>
<td>Hemivertebra</td>
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<td>Congenital fusion of spine (vertebra)</td>
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<td>756.17</td>
<td>Spina bifida occulta</td>
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<tr>
<td>758.0</td>
<td>Down's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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<td>758.1</td>
<td>Patau's syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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<td>Autosomal deletion syndromes, other autosomal deletions — (Use additional codes for conditions associated with the chromosomal anomalies)</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.3

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**88289**

**Chromosome analysis; additional high resolution study**

**Explanation**

This code is used for chromosome analysis to detect certain disorders or syndromes that may be inherited. The chromosomes of individuals with suspected genetic anomalies and neoplastic disorders are analyzed to provide definitive diagnosis. In addition, suspected carriers may be analyzed for recessive traits that may affect, or have affected, their offspring. This code is used for each additional high resolution study.

**Coding Tips**

Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

**Terms To Know**

- DNA. Deoxyribonucleic acid.
- Genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.
- Specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**

<table>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**

100-3,190.3

**CCI Version 20.0**

80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Explanation
This code is used to report physician interpretation and report of complex cytogenetic and molecular cytogenetic tests or when abnormal cytogenetic tests require complex interpretations.

Coding Tips
Report both the propagation of the cell line and the chromosome analysis for cytogenetic studies by reporting a code from CPT code range 88230-88239, in addition to one or more codes from CPT codes 88245-88299. To report molecular pathology procedures, see codes 81200-81383 (tier 1) or 81400-81408 (tier 2). Molecular pathology procedures not described by one of these codes may be reported using 81479.

Terms To Know
counseling. Discussion with a patient and/or family concerning one or more of the following areas: diagnostic results, impressions, and/or recommended diagnostic studies; prognosis; risks and benefits of management (treatment) options; instructions for management (treatment) and/or follow-up; importance of compliance with chosen management (treatment) options; risk factor reduction; and patient and family education.
genetic test. Test that is able to detect a gene mutation, either inherited or caused by the environment.

ICD-9-CM Diagnostic Codes
238.74 Myelodysplastic syndrome with Sq deletion
238.75 Myelodysplastic syndrome, unspecified
238.76 Myelofibrosis with myeloid metaplasia
288.8 Other specified disease of white blood cells
655.13 Chromosomal abnormality in fetus, affecting management of mother, antepartum
758.0 Down’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.1 Patau’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.2 Edwards’ syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.31 Cri-du-chat syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.32 Velo-cardio-facial syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)
758.33 Autosomal deletion syndromes, other microdeletions — (Use additional codes for conditions associated with the chromosomal anomalies)
758.39 Autosomal deletion syndromes, other autosomal deletions — (Use additional codes for conditions associated with the chromosomal anomalies)
758.6 Gonadal dysgenesis — (Use additional codes for conditions associated with the chromosomal anomalies)
758.7 Klinefelter’s syndrome — (Use additional codes for conditions associated with the chromosomal anomalies)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-3,190.3

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88300
88300 Level I - Surgical pathology, gross examination only

Explanation
This procedure may be called a gross pathology exam or gross exam of tissue. The exam may not be specifically ordered ahead of time; rather, the tissue is harvested in the course of a surgery and sent for routine lab evaluation. Tissue is submitted in a container labeled with the source, preoperative diagnosis, and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source.

Coding Tips
The unit of service for CPT codes 88300-88309 is the specimen. DO NOT report these codes per tissue block processed. For surgical pathology coding, specimen is defined as tissue submitted for individual and separate attention, which requires individual examination and pathologic diagnosis. Two or more separately identified biopsies should each be assigned a respective surgical pathology gross and microscopic examination code per specimen type. Any specimen not described in the CPT book should be assigned to the code that most closely reflects the physician work involved when compared to other specimens assigned to that code. Payment for surgical pathology includes the accession, examination and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know
gross. Macroscopic, as in gross pathology; the study of tissue changes without magnification by microscope.
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-2,15,80.1

CCI Version 20.0
No CCI Edits apply to this code.

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88302

88302 Level II - Surgical pathology, gross and microscopic examination

Explanation
This examination may be ordered as a gross and microscopic pathology exam or a gross and microscopic tissue exam. The exam may not be specifically ordered ahead of time; rather, the tissue is harvested in the course of a surgery and sent for routine lab evaluation. Tissue is submitted in a container labeled with the tissue source, preoperative diagnosis, and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source. This procedure is used to describe examination of tissues presumed normal. It includes both a gross and microscopic examination with the microscopic exam mainly to confirm the tissue is free of disease. Examples of its use might include tissues from a fallopian tube or vas deferens performed in the course of sterilization procedures, newborn foreskin following circumcision, hernia sac, hydrocele sac, etc.

Coding Tips
This code should not be reported as part of Mohs surgery when performed on the same specimen. The unit of service for CPT codes 88300-88309 is the specimen. DO NOT report these codes per tissue block processed. For surgical pathology coding, specimen is defined as tissue submitted for individual and separate attention, which required individual examination and pathologic diagnosis. Two or more separately identified biopsies should each be assigned a respective surgical pathology gross and microscopic examination code per specimen type. Any specimen not described in the CPT book should be assigned to the code that most closely reflects the physician work involved when compared to other specimens assigned to that code. Payment for surgical pathology includes the accession, examination, and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know
gross. Macroscopic, as in gross pathology; the study of tissue changes without magnification by microscope.
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

ICD-9-CM Diagnostic Codes
552.02 Bilateral femoral hernia with obstruction
552.03 Recurrent bilateral femoral hernia with obstruction
552.1 Umbilical hernia with obstruction
552.20 Unspecified ventral hernia with obstruction
552.21 Incisional hernia with obstruction
552.29 Other ventral hernia with obstruction
552.3 Diaphragmatic hernia with obstruction
552.8 Hernia of other specified site, with obstruction
552.9 Hernia of unspecified site, with obstruction
553.03 Femoral hernia without mention of obstruction or gangrene, recurrent bilateral
553.1 Umbilical hernia without mention of obstruction or gangrene
553.8 Hernia of other specified sites of abdominal cavity without mention of obstruction or gangrene
603.0 Encysted hydrocele
603.1 Infected hydrocele — (Use additional code to identify organism)
605 Redundant prepuce and phimosis
885.0 Traumatic amputation of thumb (complete) (partial), without mention of complication
885.1 Traumatic amputation of thumb (complete) (partial), complicated
895.0 Traumatic amputation of toe(s) (complete) (partial), without mention of complication
895.1 Traumatic amputation of toe(s) (complete) (partial), complicated
V25.2 Sterilization
V50.2 Routine or ritual circumcision

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2,15,80.1

CCI Version 20.0
88387, 89060

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88304

**Explanation**
Abortion, induced; abscess; aneurysm, arterial/ventricular; anus tag; appendix, other than incidental; artery, atheromatous plaque; colon, colostomy stoma; conjunctiva, biopsy/pterygium; cornea; diverticulum, esophagus/small intestine; Dupuytren's contracture tissue; femoral head, other than fracture; fissure/fistula; foreskin, other than newborn; gallbladder; ganglion cyst; hematoma; hemorrhoids; hydatid of Morgagni; intervertebral disc; joint, losse body, meniscus; mucocoele, salivary; neuroma-Morton/traumatic; pilonidal cyst/tag/debridement; soft tissue, debridement; soft tissue, lipoma; spermatocoele, tendon/tendon sheath; testicular appendage; thrombus or embolus; tonsil and/or adenoids; varicocoele; vas deferens, other than sterilization; vein, varicosity.

**Coding Tips**
Gross microscopic examinations would be ordered as a gross and microscopic pathology exam or a gross and microscopic tissue exam. Tissue is submitted in a container labeled with the tissue source, preoperative diagnosis, and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source. Codes 88304-88309 describe service levels for specimens requiring additional levels of work due to a presumed presence of disease. Code 88304 describes the lowest level of complexity for diseased or abnormal tissue with each subsequent code describing in ascending order higher levels of complexity and physician work. Specific types of disease and tissue sites are listed for each code. To report fine-needle aspiration, consult CPT codes 10021 and 10022. To report evaluation of fine-needle aspiration, consult CPT codes 88172-88173. This code should not be reported as part of Mohs surgery when performed on the same specimen. Payment for surgical pathology includes the accession, examination and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

**Terms To Know**
Pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>455.2</td>
<td>Internal hemorrhoids with other complication</td>
</tr>
<tr>
<td>455.3</td>
<td>External hemorrhoids without mention of complication</td>
</tr>
<tr>
<td>455.4</td>
<td>External thrombosed hemorrhoids</td>
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<tr>
<td>455.5</td>
<td>External hemorrhoids with other complication</td>
</tr>
<tr>
<td>455.6</td>
<td>Unspecified hemorrhoids without mention of complication</td>
</tr>
<tr>
<td>456.5</td>
<td>Pelvic varices</td>
</tr>
<tr>
<td>456.6</td>
<td>Vulval varices</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>473.0</td>
<td>Chronic maxillary sinusitis — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>473.1</td>
<td>Chronic frontal sinusitis — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>473.2</td>
<td>Chronic ethmoidal sinusitis — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>474.02</td>
<td>Chronic tonsillitis and adenoiditis — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>474.10</td>
<td>Hypertrophy of tonsil with adenoids — (Use additional code to identify infectious organism)</td>
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<tr>
<td>474.11</td>
<td>Hypertrophy of tonsils alone — (Use additional code to identify infectious organism)</td>
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<tr>
<td>474.12</td>
<td>Hypertrophy of adenoids alone — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>474.8</td>
<td>Other chronic disease of tonsils and adenoids — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>474.11</td>
<td>Nasal mucositis (ulcerative) — (Use additional code to identify infectious organism. Use additional E code to identify adverse effects of therapy: E879.2, E930.7, E933.1)</td>
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<tr>
<td>474.4</td>
<td>Polyp of vocal cord or larynx</td>
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<tr>
<td>513.0</td>
<td>Abscess of lung — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>513.1</td>
<td>Abscess of mediastinum — (Use additional code to identify infectious organism)</td>
</tr>
<tr>
<td>682.2</td>
<td>Cellulitis and abscess of trunk — (Use additional code to identify organism, such as 041.1, etc.)</td>
</tr>
<tr>
<td>682.3</td>
<td>Cellulitis and abscess of upper arm and forearm — (Use additional code to identify organism, such as 041.1, etc.)</td>
</tr>
<tr>
<td>685.0</td>
<td>Pilonidal cyst with abscess</td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-2,15,80.1

**CCI Version 20.0**
88160-88162, 88387, 89060

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88305

Level IV - Surgical pathology, gross and microscopic examination

**Explanation**
Abortion, spontaneous/missed; artery, biopsy; bone marrow, biopsy; bone exostosis; brain meninges, other than for tumor resection; breast biopsy, w/o surgical margin exam; breast reduction mammoplasty; bronchus, biopsy; cell block, any source; cervix, biopsy; colon, biopsy; duodenum, biopsy; endocervix, curettages/biopsy; endometrium, curettages/biopsy; esophagus, biopsy; extremity, amputation, traumatic; fallopian tube, biopsy; fallopian tube, ectopic pregnancy; femoral head, fracture; fingers/toes, amputation, non-traumatic; gingiva/oral mucosa, biopsy; heart valve, joint, resection; kidney, biopsy; larynx, biopsy; leiomyoma(s), uterine myomectomy w/o uterus; lip, biopsy/wedge resection; lung transbronchial biopsy; lymph node, biopsy; muscle, biopsy; nasal mucosa, biopsy; nasopharynx/oropharynx, biopsy; nerve, biopsy; odontogenic/dental cyst; pmentum, biopsy; overy w/wo tube, nonneoplastic; ovary biopsy/wedge resection; parathyroid gland; peritoneum, biopsy; pituitary tumor; placenta, other than third trimester; pleura/pericardium biopsy/tissue; polyt, cervical/ endometrial; polyt, colorectal; polyt stomach/small intestine; prostate, needle biopsy; prostate, TUR; salivary gland, biopsy; sinus, paranasal biopsy; skin, other than cyst/tag/debridement/plastic repair; small intestine, biopsy; soft tissue, other than tumor/mass/lipoma/debridement; spleen; stomach, biopsy; synovium; testis, other than tumor/biopsy/castration; thyroglossal duct/branchial cleft cyst; tongue, biopsy; tonsil, biopsy; trachea, biopsy; ureter, biopsy; urethra, biopsy; urinary bladder, biopsy; uterus, w or w/o tubes and ovaries for prolapse; vagina, biopsy; vulva/labia, biopsy.

**Coding Tips**
Gross microscopic examinations would be ordered as a gross and microscopic pathology exam or a gross and microscopic tissue exam. Tissue is submitted in a container labeled with the tissue source, preoperative diagnosis and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source. Codes 88304-88309 describe service levels for specimens requiring additional levels of work due to a presumed presence of disease. Code 88304 describes the lowest level of complexity for diseased or abnormal tissue with each subsequent code describing in ascending order higher levels of complexity and physician work. Specific types of disease and tissue sites are listed for each code. To report fine-needle aspiration, consult CPT codes 10021 and 10022. To report evaluation of fine-needle aspiration, consult CPT codes 88172-88173. This code should not be reported as part of Mohs surgery when performed on the same specimen. Payment for surgical pathology includes the accession, examination, and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

**ICD-9-CM Diagnostic Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>173.00</td>
<td>Unspecified malignant neoplasm of skin of lip</td>
</tr>
<tr>
<td>173.01</td>
<td>Basal cell carcinoma of skin of lip</td>
</tr>
<tr>
<td>188.3</td>
<td>Malignant neoplasm of anterior wall of urinary bladder</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Procedure Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
</tr>
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<td>200.02</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-2,15,80.1

**CCI Version 20.0**
88160-88162, 88387, 89060

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88307

88307  Level V - Surgical pathology, gross and microscopic examination

Explanation
Adrenal, resection; bone, biopsy/curettings; bone fragment(s); pathologic fracture; brain, biopsy; brain/meninges, tumor resection; breast, excision of lesion w surgical margin exam; breast, mastectomy, partial/simple; cervix, conization; colon segmental resection, other than for tumor; extremity, amputation, non-traumatic; eye, enucleation; kidney, partial/total nephrectomy; larynx, partial/total resection; liver biopsy, needle/wedge; liver partial resection; lung, wedge biopsy; lymph nodes, regional resection; mediastimun, mass; myocardium, biopsy; odontogenic tumor; ovary w or w/o tube, neoplastic; pancreas, biopsy; placenta, third trimester; prostate, except radical resection; salivary gland; sentinel lymph node; small intestine resection, other than for tumor; soft tissue mass (except lipoma), biopsy/simple excision; thymus, tumor; thyroid, total/lobe; ureter, resection; urinary bladder, TUR; uterus, w or w/o tubes and ovaries, other than neoplastic/prolapse.

Coding Tips
Gross microscopic examinations would be ordered as a gross and microscopic pathology exam or a gross and microscopic tissue exam. Tissue is submitted in a container labeled with the tissue source, preoperative diagnosis, and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source. Codes 88304-88309 describe service levels for specimens requiring additional levels of work due to a presumed presence of disease. Code 88304 describes the lowest level of complexity for diseased or abnormal tissue with each subsequent code describing in ascending order higher levels of complexity and physician work. Specific types of disease and tissue sites are listed for each code. To report fine-needle aspiration, consult CPT codes 10021 and 10022. To report evaluation of fine-needle aspiration, consult CPT codes 88172-88173. This code should not be reported as part of Mohs surgery when performed on the same specimen. Payment for surgical pathology includes the accession, examination and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

ICD-9-CM Diagnostic Codes
155.0  Malignant neoplasm of liver, primary
156.1  Malignant neoplasm of extrahepatic bile ducts
157.0  Malignant neoplasm of head of pancreas
157.1  Malignant neoplasm of body of pancreas
157.2  Malignant neoplasm of tail of pancreas
157.3  Malignant neoplasm of pancreatic duct
183.0  Malignant neoplasm of ovary — (Use additional code to identify any functional activity)
186.0  Malignant neoplasm of undescended testis — (Use additional code to identify any functional activity)
188.0  Malignant neoplasm of trigone of urinary bladder
188.1  Malignant neoplasm of dome of urinary bladder
189.2  Malignant neoplasm of ureter
190.0  Malignant neoplasm of eyeball, except conjunctiva, cornea, retina, and choroid
190.8  Malignant neoplasm of other specified sites of eye
191.1  Malignant neoplasm of frontal lobe of brain
191.3  Malignant neoplasm of parietal lobe of brain
191.4  Malignant neoplasm of occipital lobe of brain
191.5  Malignant neoplasm of ventricles of brain
197.7  Secondary malignant neoplasm of liver
198.0  Secondary malignant neoplasm of kidney
198.6  Secondary malignant neoplasm of ovary
201.22  Hodgkin's sarcoma of intrathoracic lymph nodes
201.24  Hodgkin's sarcoma of lymph nodes of axilla and upper limb
227.0  Benign neoplasm of adrenal gland — (Use additional code to identify any functional activity)
230.2  Carcinoma in situ of stomach
233.4  Carcinoma in situ of prostate

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2,15,80.1

CCI Version 20.0
88160-88162, 88387, 89060
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88309

Level VI - Surgical pathology, gross and microscopic examination

Explanation
Bone resection; breast, mastectomy w/ regional lymph nodes; colon, segmental resection for tumor; colon, total resection; esophagus, partial/total resection; extremity, disarticulation; fetus, with dissection; larynx, partial/total resection w/ regional lymph nodes; lung, total/lobe/segment resection; pancreas, total/subtotal resection; prostate, radical resection; small intestine, resection for tumor; soft tissue tumor, extensive resection; stomach, subtotal/total resection for tumor; testis, tumor; tongue/tonsil, resection for tumor; uterus, w/ or w/o tubes and ovaries, neoplastic; vulva, total/subtotal resection.

Coding Tips
Gross microscopic examinations would be ordered as a gross and microscopic pathology exam or a gross and microscopic tissue exam. Tissue is submitted in a container labeled with the tissue source, preoperative diagnosis, and patient identification information. Specimens from separate sites must be submitted in separate containers, each labeled with the tissue source. Codes 88304-88309 describe service levels for specimens requiring additional levels of work due to a presumed presence of disease. Code 88304 describes the lowest level of complexity for diseased or abnormal tissue with each subsequent code describing in ascending order higher levels of complexity and physician work. Specific types of disease and tissue sites are listed for each code. To report fine-needle aspiration, consult CPT codes 10021 and 10022. To report evaluation of fine-needle aspiration, consult CPT codes 88172-88173. This code should not be reported as part of Mohs surgery when performed on the same specimen. Payment for surgical pathology includes the accession, examination and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

ICD-9-CM Diagnostic Codes
141.1 Malignant neoplasm of dorsal surface of tongue
141.3 Malignant neoplasm of ventral surface of tongue
141.6 Malignant neoplasm of lingual tonsil
146.0 Malignant neoplasm of tonsil
150.3 Malignant neoplasm of upper third of esophagus
150.4 Malignant neoplasm of middle third of esophagus
151.3 Malignant neoplasm of fundus of stomach
151.4 Malignant neoplasm of body of stomach
153.1 Malignant neoplasm of transverse colon
153.2 Malignant neoplasm of descending colon
157.0 Malignant neoplasm of head of pancreas
157.1 Malignant neoplasm of body of pancreas
161.3 Malignant neoplasm of laryngeal cartilages
161.8 Malignant neoplasm of other specified sites of larynx
162.4 Malignant neoplasm of middle lobe, bronchus, or lung
162.5 Malignant neoplasm of lower lobe, bronchus, or lung
170.1 Malignant neoplasm of mandible
170.3 Malignant neoplasm of ribs, sternum, and clavicle
170.6 Malignant neoplasm of pelvic bones, sacrum, and coccyx
170.7 Malignant neoplasm of long bones of lower limb
171.3 Malignant neoplasm of connective and other soft tissue of lower limb, including hip
171.4 Malignant neoplasm of connective and other soft tissue of thorax
174.2 Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.3 Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.4 Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2, 15, 80.1

CCI Version 20.0
88160-88162, 88387, 89060
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

<table>
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<th>Procedure Codes</th>
<th>Work Value</th>
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<th>Malpractice</th>
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88311
88311  Decalcification procedure (List separately in addition to code for surgical pathology examination)

Explanation
This procedure is performed in addition to the basic surgical pathology examination (88302-88309) on specimens requiring decalcification for accurate evaluation. When calcium is present in the tissue, the specimen is too hard to be properly sectioned for microscopic evaluation. Using an acid solution, calcareous matter is removed from bone and other tissue (decalcification). The specimen is bathed in a solution to remove calcium ions via an ion exchange. This process may take hours or days depending on the specimen. Decalcification is commonly performed in bone marrow biopsy.

Coding Tips
As an add-on code, 88311 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes.

Terms To Know
laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
This modifier-51 exempt code is usually performed with other related procedures. Refer to the primary procedure code for ICD-9-CM diagnostic code links.

IOM References
100-2, 15, 80.1

CCI Version 20.0
No CCI Edits apply to this code.

<table>
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<th>Work Value</th>
<th>Non-Fac PE</th>
<th>Fac PE</th>
<th>Malpractice</th>
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<th>Fac Total</th>
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</table>
ICD-9-CM Diagnostic Codes

041.86 Helicobacter pylori [H. pylori] infection — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)

202.80 Other malignant lymphomas, unspecified site, extranodal and solid organ sites

88312-88319

88312 Special stain including interpretation and report; Group I for microorganisms (eg, acid fast, methenamine silver)

88313 Group II, all other (eg, iron, trichrome), except stain for microorganisms, stains for enzyme constituents, or immunocytochemistry and immunohistochemistry

88314 Histochemical stain on frozen tissue block (List separately in addition to code for primary procedure)

88319 Group III, for enzyme constituents

Explanation

These codes report stains used in the evaluation of some tissue specimens. Depending on the type of specimen and the reason for the pathology examination, different stains may be required to highlight or outline cells for identification. Code 88312 reports Group I stains for microorganisms. Code 88313 reports Group II stains for all other conditions excluding microorganisms, enzyme constituents, immunocytochemistry, and immunohistochemistry. Examples of Group II stains include Ziehl-Neelsen, acid phosphatase stain with and without tartrate, alpha-naphthyl esterase stain with and without fluoride, amyloid, ASD chloroacetate esterase stain, nonspecific esterase, PAS stain, and Sudan black stain. Code 88314 reports histochemical staining on frozen tissue blocks. Code 88319 reports additional histochemistry services performed with basic pathology services, including determinative tests for enzyme constituents, each constituent. An example of a specimen that might require histochemistry for enzyme constituents is a muscle biopsy.

Coding Tips

As an add-on code, 88314 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. Code 88314 should be used in conjunction with codes 88302, 88309, 88331, or 88332. Code 88314 should not be reported with codes 17311–17315 for routine frozen section stains performed during Mohs surgery. However, according to CPT instructions, when a nonroutine histochemical stain on frozen tissues is performed, code 88314 may be reported separately. Append modifier 59 Distinct procedural service, in these scenarios. For immunocytochemistry and immunoperoxidase tissue studies, consult CPT code 88342 and 88343.

ICD-9-CM Diagnostic Codes

- 041.86 Helicobacter pylori [H. pylori] infection — (Note: This code is to be used as an additional code to identify the bacterial agent in diseases classified elsewhere and bacterial infections of unspecified nature or site)
- 202.80 Other malignant lymphomas, unspecified site, extranodal and solid organ sites

<table>
<thead>
<tr>
<th>Procedure Codes</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S31.41 Chronic or unspecified gastric ulcer with hemorrhage and obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S31.50 Chronic or unspecified gastric ulcer with perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S31.70 Chronic gastric ulcer without mention of hemorrhage, perforation, without mention of obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S31.90 Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage, perforation, or obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S32.90 Duodenal ulcer, unspecified as acute or chronic, without hemorrhage, perforation, or obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S32.91 Duodenal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S33.70 Chronic peptic ulcer, unspecified site, without mention of hemorrhage, perforation, or obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S33.71 Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation, with obstruction — (Use additional E code to identify drug, if drug induced)</td>
<td></td>
</tr>
<tr>
<td>S34.21 Acute gastrojejunal ulcer with hemorrhage, perforation, and obstruction</td>
<td></td>
</tr>
<tr>
<td>S34.30 Acute gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction</td>
<td></td>
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<tr>
<td>S35.10 Atrophic gastritis without mention of hemorrhage</td>
<td></td>
</tr>
<tr>
<td>S35.40 Other specified gastritis without mention of hemorrhage</td>
<td></td>
</tr>
<tr>
<td>S35.50 Unspecified gastritis and gastroduodenitis without mention of hemorrhage</td>
<td></td>
</tr>
<tr>
<td>S35.60 Duodenitis without mention of hemorrhage</td>
<td></td>
</tr>
<tr>
<td>S35.61 Duodenitis with hemorrhage</td>
<td></td>
</tr>
</tbody>
</table>

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References

100-2,15,80.1

CCI Version 20.0

Also not with 88313: 85536, 88358

Also not with 88319: 83876

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88321-88325

88321 Consultation and report on referred slides prepared elsewhere
88323 Consultation and report on referred material requiring preparation of slides
88325 Consultation, comprehensive, with review of records and specimens, with report on referred material

Explanation
A pathology consultation involves an opinion or advice on the presence or absence of diseased or abnormal tissue provided at the request of another physician. These three codes report consultations and written interpretations on slide or material referred from another facility or source. Code 88321 reports a consultation and written report on slide prepared by another source; 88323 reports a consultation and written report on material referred from another source requiring routine preparation of slides by the consultant; and 88325 reports a comprehensive consultation with review of records, evaluation of specimens requiring more complex slide preparation, and a written report.

Coding Tips
To report intraoperative pathology consultation, consult CPT codes 88329-88333. Payment for surgical pathology includes accession, examination, and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know
consultation. Advice or opinion regarding diagnosis and treatment or determination to accept transfer of care of a patient rendered by a medical professional at the request of the primary care provider.
pathology. Medical science, and specialty practice, regarding all aspects of disease, with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
85097, 87209, 88104-88106, 88108, 88120-88141, 88160-88162, 88173, 88182-88184, 88187-88189, 88302-88309, 88312-88314, 88342, 88346-88361, 88363-88372, 88387-88388
Also not with 88321: 88319
Also not with 88323: 88319-88321
Also not with 88325: 88319-88323
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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88329-88332

88329  Pathology consultation during surgery;
88331  first tissue block, with frozen section(s), single specimen
88332  each additional tissue block with frozen section(s) (List separately in addition to code for primary procedure)

Explanation
These procedures may also be referred to as an intraoperative pathology exam with frozen section (FS). A pathology consultation involves an opinion or advice on the presence or absence of diseased or abnormal tissue provided at the request of another physician. These codes describe such a pathology consultation during the course of a surgery. Code 88329 describes a pathology consultation during the course of a surgery and includes only a gross examination of the tissue without concurrent microscopic examination. Codes 88331-88332 include a gross examination of tissue and frozen sections, including a written interpretation of findings. The specimen is immediately frozen in a cold liquid or cold environment (-20 to -70 C) to facilitate sectioning with a microtome. The specimen is sectioned using a cryostat which is a refrigerated box containing a microtome. Once sectioned, the tissues are placed on a slide, stained and examined microscopically. Code 88331 reports examination of a single block of tissue; 88332 reports each additional block of tissue from the same specimen. Intraoperative consultations are performed to assist the surgeon in determining immediate surgical course.

Coding Tips
As an add-on code, 88332 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. Code 88332 should be reported in addition to 88331. The number of units indicated on the claim for 88332 should correspond to the number of additional tissue blocks performed. These procedures may be reported in addition to intraoperative cytology services (88333). To report pathology consultation other than during surgery, consult CPT codes 88321-88325.

ICD-9-CM Diagnostic Codes
160.0  Malignant neoplasm of nasal cavities
160.2  Malignant neoplasm of maxillary sinus
160.4  Malignant neoplasm of frontal sinus
161.0  Malignant neoplasm of glottis
161.1  Malignant neoplasm of supraglottis
161.2  Malignant neoplasm of subglottis
161.3  Malignant neoplasm of laryngeal cartilages
161.8  Malignant neoplasm of other specified sites of larynx
161.9  Malignant neoplasm of larynx, unspecified site
173.00  Unspecified malignant neoplasm of skin of lip

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IOM References
100-2,15,80.1

CCI Version 20.0
88387
Also not with 88329: 88162
Also not with 88331: 88160-88162
Also not with 88332: 88160-88162, 88329, 88333-88334
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Immunohistochemistry or immunocytochemistry, each separately identifiable antibody per block, cytologic preparation, or hematologic smear; first separately identifiable antibody per slide

Explanation
This immunohistochemistry procedure is also referred to as immunostain or peroxidase-antiperoxidase (PAP). It is a technique used to identify specific antigens found in tumor cells. It is used primarily for the diagnosis of poorly differentiated neoplasms. There are several methods of performing immunocytochemistry tests; however, all involve treating the specimen with a tumor specific antibody, incubation, and subsequent washing of the specimen to remove unbound antibody and counterstaining with secondary antibodies to determine the antibody location. The specimen is examined for positive and negative responses. Multiple immunostains are normally performed on each specimen to more specifically identify the suspect neoplasm by providing known positive and negative responses specific to that neoplasm. Report 88342 for the first antibody identified and 88343 for each additional antibody identified on the same slide.

Coding Tips
Code 88342 is revised in the CPT code description and code 88343 is new for 2014. As an add-on code, 88343 is not subject to multiple procedure rules. No reimbursement reduction or modifier S1 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. Code 88343 should be reported with code 88342. Code 88342 cannot be reported with CPT code 88360 or 88361 for the same antibody. To report quantitative or semiquantitative immunohistochemistry, consult CPT codes 88360 and 88361. Do not report 88342 more than one time for the first separately identifiable antibody on a slide. Report 88483 once per additional separately identifiable antibody.

Terms To Know
antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.

ICD-9-CM Diagnostic Codes
155.2 Malignant neoplasm of liver, not specified as primary or secondary
162.3 Malignant neoplasm of upper lobe, bronchus, or lung
162.4 Malignant neoplasm of middle lobe, bronchus, or lung
162.5 Malignant neoplasm of lower lobe, bronchus, or lung
200.14 Lymphosarcoma of lymph nodes of axilla and upper limb
200.15 Lymphosarcoma of lymph nodes of inguinal region and lower limb
200.16 Lymphosarcoma of intrapelvic lymph nodes

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88348-88349

88348  Electron microscopy; diagnostic
88349  scanning

Explanation

These procedures are also referred to as electron microscopy (EM), transmission electron microscopy, or ultrastructural study. They are used primarily for the diagnosis of neoplasms when other techniques have failed to provide a definitive diagnosis. Tissues are prepared and fixed in a plastic polymer. Initially, thick sections (1 micron) are cut and stained to identify best specimen sites for further study. Subsequently, thin sections are cut and prepared with electron dense stain. The specimens are examined using electron microscopy. Code 88348 reports diagnostic EM. Code 88349 reports scanning EM.

Coding Tips

Correct code assignment is dependent upon the type of service performed (i.e., diagnostic or scanning). Payment for surgical pathology includes accession, examination, and reporting. When services described by CPT codes 88311-88399 are also performed, the codes may be reported in addition to CPT codes 88300-88309.

Terms To Know

neoplasm. New abnormal growth, tumor.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References

100-3,190.4

CCI Version 20.0

Also not with 88348: 88349

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88355-88358

88355  Morphometric analysis; skeletal muscle nerve
tumor (eg, DNA ploidy)

Explanation
These procedures may also be referred to as histomorphometry. Methodology is by flow cytometry or quantitative image analysis system. Cells are stained and the histologic organization, including structure, composition, and function, is evaluated.

Coding Tips
Code 88358 should not be reported with code 88313 unless each procedure is for a different special stain.

Terms To Know

Laboratory. Facility for the virological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of or the assessment of the health of human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities that only collect or prepare specimens (or both) or act only as a mailing service and do not perform tests are not considered laboratories.

Quantitative. To determine the amount and nature of the components of a substance.

Specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

174.1 Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.2 Malignant neoplasm of upper-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.3 Malignant neoplasm of lower-inner quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.4 Malignant neoplasm of upper-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.5 Malignant neoplasm of lower-outer quadrant of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.6 Malignant neoplasm of axillary tail of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.7 Malignant neoplasm of other specified sites of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.8 Malignant neoplasm of breast (female), unspecified site — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.9 Malignant neoplasm of nipple and areola of male breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
185 Malignant neoplasm of prostate
188.5 Malignant neoplasm of bladder neck
188.6 Malignant neoplasm of ureteric orifice
188.7 Malignant neoplasm of urachus
188.8 Malignant neoplasm of other specified sites of bladder
233.0 Carcinoma in situ of breast
233.2 Carcinoma in situ of other and unspecified parts of uterus
235.2 Neoplasm of uncertain behavior of stomach, intestines, and rectum
599.70 Hematuria, unspecified
599.71 Gross hematuria
599.72 Microscopic hematuria

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
Also not with 88355: 88380
Also not with 88356: 88380-88381
Also not with 88358: 88380

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Morphometric analysis, tumor immunohistochemistry (eg, Her-2/neu, estrogen receptor/progesterone receptor), quantitative or semiquantitative, each antibody; manual

Explanation

Morphometric analysis may also be referred to as histomorphometry. A quantitative or semiquantitative test is done for tumor immunohistochemistry, such as the Her-2/neu receptor. The HER-2/neu protein is a cell surface growth factor receptor expressed on the cytoplasmic membrane of some epithelial cells. This protein regulates normal cell growth and division. An increased number of HER-2/neu genes in the cell nucleus causes over expression of the HER-2/neu oncoprotein, which in turn produces growth signals leading to cell transformation and cancer development. Microthin sections of the fixed, paraffin-embedded tissue are mounted on glass slides. Antigen retrieval with citrate buffers or microwaving is done to inhibit peroxidase activity and background staining. Immunostaining is done by adding a dilution containing the primary antibody to the receptor protein and incubating. Counterstaining with secondary antibodies is done to visualize antibody location. Further analysis is done to determine the histologic organization of the tumor and measure its structure, form, and composition, quantitatively or semiquantitatively, either manually for 88360 or using computer-assisted technology for 88361. These codes are reported once for each antibody used to test for a specific protein receptor, such as Her-2/neu, estrogen, or progesterone receptor.

Coding Tips

Codes 88360 and 88361 should not be reported with code 88342 unless each procedure is for a different antibody. To report morphometric analysis in situ hybridization, consult CPT codes 88367 and 88368. If semithin, plastic-embedded sections are performed with morphometric analysis, only the analysis should be reported. If performed as an independent procedure, consult CPT codes 88300-88309.

Terms To Know

antibody. Protein that B cells of the immune system produce in response to the presence of a foreign antigen.
tumor. Pathological swelling or enlargement; a neoplastic growth of uncontrolled, abnormal multiplication of cells.

ICD-9-CM Diagnostic Codes

174.0 Malignant neoplasm of nipple and areola of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)
174.1 Malignant neoplasm of central portion of female breast — (Use additional code to identify estrogen receptor status: V86.0-V86.1)

<table>
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CCI Version 20.0

88342
Also not with 88361: 88360

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
In situ hybridization (eg, FISH), each probe

Explanation
This test is also known as DNA-to-DNA homology, or simply ISH. In situ hybridization involves isolating and detecting specific nucleotide (mRNA) sequences within morphologically preserved cells and tissues by hybridizing a complementary nucleic acid strand, called a probe, to the sequence of interest within the prepared cells. The cells of interest may be snap-frozen and fixed in paraformaldehyde, spun out of suspension onto glass slides and fixed with methanol, or fixed in formalin and embedded in paraffin. The probe is first labeled with an easily detectable substance, such as a radioactive isotope, before hybridization. Types of probes used are oligonucleotides, single-stranded DNA, double-stranded DNA, and RNA, or riboprobes. The labeled probe strand is added to the prepared cells. The pairing or bonding (hybridization) that occurs between the complementary sequences of nucleotide bases in the probe to the specific mRNA sequences allows the expression of the type of sequence being detected to be seen on the target gene. This code is reported once for each type of probe used.

Coding Tips
Code 88365 cannot be reported with CPT codes 88637 and 88638 for the same probe.

ICD-9-CM Diagnostic Codes

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<td>174.3</td>
<td>Malignant neoplasm of lower-inner quadrant of female breast —</td>
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<td>174.4</td>
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<td>174.7</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 88271-88275, 88358
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88367-88368

88367  Morphometric analysis, in situ hybridization (quantitative or semi-quantitative) each probe; using computer-assisted technology

88368  manual

Explanation
Morphometric analysis may also be referred to as histomorphometry. A quantitative or semiquantitative analysis is done with in situ hybridization. In situ hybridization involves isolating and detecting specific nucleotide (mRNA) sequences within morphologically preserved cells and tissues by hybridizing a complementary nucleic acid strand, called a probe, to the sequence of interest within the prepared cells. The cells of interest may be snap frozen and fixed in paraformaldehyde, spun out of suspension onto glass slides and fixed with methanol, or formalin fixed embedded in paraffin. The probe is first labeled with an easily detectable substance, such as a radioactive isotope, before hybridization. Types of probes used are oligonucleotides, single-stranded DNA, double-stranded DNA, and RNA, or riboprobes. The labeled probe strand is added to the prepared cells. The pairing or bonding (hybridization) that occurs between the complementary sequences of nucleotide bases in the probe to the specific mRNA sequences allows the expression of the type of sequence being detected to be seen on the target gene. Analysis is done to determine the organization, structure, form and composition within the morphologically preserved cells being studied, either manually in 88668 or using computer-assisted technology in 88367. These codes are reported once for each type of probe used.

Coding Tips
Correct code selection is dependent upon the methodology used. Code 88365 cannot be reported with CPT codes 88637 and 88638 for the same probe.

Terms To Know
DNA. Deoxyribonucleic acid.
quantitative. To determine the amount and nature of the components of a substance.
RNA. Ribonucleic acid.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
80500-80502, 88271-88275, 88358, 88365, 88380-88381
Also not with 88367: 88120

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88371-88372

88371  Protein analysis of tissue by Western Blot, with interpretation and report;
88372  immunological probe for band identification, each

Explanation
Western blot is an immunoassay technique that detects and confirms certain viral antibodies. Protein analysis of tissue involves separation of protein and glycoprotein components by electrophoresis. For certain diagnoses, polyacrylamide gel electrophoresis is used to create substrate bands that are transferred by electrophoretic blotting to a membrane. Patient serum is placed on the substrate strips and any of the targeted antibodies present will bind to the viral antigens. Report 88372 when the protein analysis of tissue by Western blot includes an immunological probe for band identification. The band patterns are visualized by immunohistochemical methods. Either service requires interpretation and written report.

Coding Tips
Venipuncture is separately reportable. For collection of venous blood by venipuncture, see code 36415. For venipuncture on a patient younger than 3 years of age, see codes 36400-36406. When venipuncture on a patient 3 years of age or older requires physician skill, see code 36410. If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

IOM References
100-3,190.8

CCI Version 20.0
80500-80502
Also not with 88372: 88371
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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88375
88375  Optical endomicroscopic image(s), interpretation and report, real-time or referred, each endoscopic session

Explanation
The images captured using an optical endomicroscope during endoscopy are reviewed, interpreted, and a report is generated. The endomicroscope uses laser light to magnify the cells of the mucosa in order to identify the histopathology without a biopsy. This service can be performed during the procedure (real time) or at a later time. This code is reported per endoscopic procedure, not per image.

Coding Tips
This code should not be reported in conjunction with esophagoscopy with optical endomicroscopy (43206) or EGD with optical endomicroscopy (43252).

Terms To Know
endo-. Within, internal.

ICD-9-CM Diagnostic Codes
150.0  Malignant neoplasm of cervical esophagus
150.1  Malignant neoplasm of thoracic esophagus
150.2  Malignant neoplasm of abdominal esophagus
150.3  Malignant neoplasm of upper third of esophagus
150.4  Malignant neoplasm of middle third of esophagus
150.5  Malignant neoplasm of lower third of esophagus
150.8  Malignant neoplasm of other specified part of esophagus
150.9  Malignant neoplasm of esophagus, unspecified site
151.0  Malignant neoplasm of cardia
456.0  Esophageal varices with bleeding
456.1  Esophageal varices without mention of bleeding
530.0  Achalasia and cardiospasm
530.11 Reflux esophagitis — (Use additional E code to identify cause, if induced by chemical)
530.12 Acute esophagitis — (Use additional E code to identify cause, if induced by chemical)
530.13 Eosinophilic esophagitis
530.19 Other esophagitis — (Use additional E code to identify cause, if induced by chemical)
530.20 Ulcer of esophagus without bleeding — (Use additional E code to identify cause, if induced by chemical or drug)
530.21 Ulcer of esophagus with bleeding — (Use additional E code to identify cause, if induced by chemical or drug)
530.3  Stricture and stenosis of esophagus
530.4  Perforation of esophagus
530.5  Dyskinesia of esophagus
530.6  Diverticulum of esophagus, acquired
530.7  Gastroesophageal laceration-hemorrhage syndrome
530.81 Esophageal reflux
530.82 Esophageal hemorrhage
530.83 Esophageal leukoplakia
530.84 Tracheoesophageal fistula
530.85 Barrett’s esophagus
577.2  Cyst and pseudocyst of pancreas
787.20 Dysphagia, unspecified
787.21 Dysphagia, oral phase
787.22 Dysphagia, oropharyngeal phase
787.23 Dysphagia, pharyngeal phase
787.24 Dysphagia, pharyngoesophageal phase
787.29 Other dysphagia
793.4  Nonspecific (abnormal) findings on radiological and other examination of gastrointestinal tract
799.89 Other ill-defined conditions
862.22 Esophagus injury without mention of open wound into cavity

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
88300
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Microdissection (i.e., sample preparation of microscopically identified target); laser capture microdissection

**Explanation**
Laser capture microdissection (LCM) (88380) is a method for procuring pure cells from specific microscopic regions of tissue sections to study developing disease lesions in actual tissue. A transfer film is applied to the surface of the tissue section. Under the microscope, the diagnostic pathologist or researcher views the thin tissue section and chooses microscopic clusters of cells to study. When the cells of choice are in the center of the field of view, a pulsed laser beam activates a spot on the transfer film immediately above the cells of interest. At this location the film melts and fuses with the underlying cells. When the film is removed, the chosen cells are held, while the rest of the tissue is left behind. This allows multiple homogeneous samples within the tissue section to be targeted for analysis. Assign CPT code 88380 for laser capture and CPT code 88381 for manual microdissection.

**Coding Tips**
Code 88380 should not be reported with code 88381.

**Terms To Know**
dissection. (dis. apart; -section, act of cutting) Separating by cutting tissue or body structures apart.
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

**CCI Version 20.0**
88363
Also not with 88380: 88360-88361, 88381
Also not with 88381: 88355, 88358-88361
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88387-88388

88387  Macroscopic examination, dissection, and preparation of tissue for non-microscopic analytical studies (eg, nucleic acid-based molecular studies); each tissue preparation (eg, a single lymph node)

88388  in conjunction with a touch imprint, intraoperative consultation, or frozen section, each tissue preparation (eg, a single lymph node) (List separately in addition to code for primary procedure)

Explanation
The physician performs a macroscopic (visual) examination, dissection, and preparation of tissues for analytical studies that are non-microscopic, such as nucleic acid-based molecular studies. Report 88387 for each tissue preparation (e.g., a single lymph node). Report 88388 when this procedure is performed in conjunction with a touch imprint, intraoperative consultation, or frozen section.

Coding Tips
As an add-on code, 88388 is not subject to multiple procedure rules. No reimbursement reduction or modifier 51 is applied. Add-on codes describe additional intraservice work associated with the primary procedure. They are performed by the same physician on the same date of service as the primary service/procedure, and must never be reported as stand-alone codes. Codes 88387 and 88388 should not be reported for tissue preparation for microbiologic cultures or flow cytometric studies. Code 88387 should not be reported in addition to codes 88388 and 88329-88334. Code 88388 may be reported in addition to codes 88329-88334.

Terms To Know
dissection. (dis. apart; -section, act of cutting) Separating by cutting tissue or body structures apart.

ICD-9-CM Diagnostic Codes
The application of this code is too broad to adequately present ICD-9-CM diagnostic code links here. Refer to your ICD-9-CM book.

CCI Version 20.0
88300
Also not with 88387: 88388
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

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Bilirubin, total, transcutaneous

Explanation
Bilirubin is a bile pigment produced through the breakdown of blood components. High bilirubin concentrations in the blood is known as jaundice. Transcutaneous bilirubinometry uses subcutaneous tissue photometry to measure bilirubin concentration, particularly in newborns. The optic head of the photometric analyzer is pressed against the infant’s skin and takes several seconds to obtain a measurement.

Coding Tips
When transdermal oxygen saturation is performed, report the appropriate code from range 94760-94752. See code 88749 to report all in vivo measurements that are not specifically identified by codes 88720-88741.

Terms To Know
jaundice. Increased bilirubin and deposits of bile pigment in the skin and sclera, causing a yellow tint. Synonym(s): icterus.

ICD-9-CM Diagnostic Codes
773.0 Hemolytic disease due to Rh isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.1 Hemolytic disease due to ABO isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
773.2 Hemolytic disease due to other and unspecified isoimmunization of fetus or newborn — (Use additional code(s) to further specify condition)
774.1 Perinatal jaundice from other excessive hemolysis — (Use additional code(s) to further specify condition. Use additional code to identify cause)
774.2 Neonatal jaundice associated with preterm delivery — (Use additional code(s) to further specify condition)
774.30 Neonatal jaundice due to delayed conjugation, cause unspecified — (Use additional code(s) to further specify condition)
774.39 Other neonatal jaundice due to delayed conjugation from other causes — (Use additional code(s) to further specify condition)
774.4 Perinatal jaundice due to hepatocellular damage — (Use additional code(s) to further specify condition)
774.6 Unspecified fetal and neonatal jaundice — (Use additional code(s) to further specify condition)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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CCI Version 20.0
82247
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
88738-88741

88738  Hemoglobin (Hgb), quantitative, transcutaneous
88740  Hemoglobin, quantitative, transcutaneous, per day; carboxyhemoglobin
88741  methemoglobin

Explanation
Code 88738 is a quantitative measurement of hemoglobin. One indication is the diagnosis of anemia or polycythemia in order to evaluate the severity of these conditions and to observe the patient’s response to treatment. Measurement of hemoglobin by the transcutaneous method eliminates the need to draw blood. Instead, a visible and near-infrared spectroscopic device is used and measurements are obtained by a handheld probe, typically on the forearm. Report 88740 when test is specific to carboxyhemoglobin. Carboxyhemoglobin is hemoglobin with carbon monoxide bound to it instead of the normal oxygen. Report 88741 when test is specific to methemoglobin. Methemoglobin is hemoglobin that has been altered so that it is unable to carry oxygen. Methemoglobin may be acquired by exposure to certain chemical agents, or it may be due a genetic condition. In vivo measures are noninvasive using visible and near-infrared optical bands.

Coding Tips
For in vitro measurement of carboxyhemoglobin, see code 82375. For quantitative in vitro methemoglobin determination, see code 83050. Category V70-V82 codes represent encounters with health services for general physical and mental examinations, routine tests on specific body systems, and screenings. The special screening codes are used only when screening procedures are performed on defined population groups, such as armed forces personnel or pre-employment physicals. Observation for suspected condition codes should be reported when a patient presents with a suspected condition, but after further examination, it is ruled out. This category may be used for administrative or legal observations. See code 88749 to report all in vivo measurements that are not specifically identified by codes 88720-88741.

Terms To Know
hemoglobin. Oxygen-carrying component of the red blood cell.

ICD-9-CM Diagnostic Codes

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<th>Code</th>
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<td>786.09</td>
<td>Other dyspnea and respiratory abnormalities</td>
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<tr>
<td>790.09</td>
<td>Other abnormality of red blood cells</td>
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<tr>
<td>V15.84</td>
<td>Personal history of contact with and (suspected) exposure to asbestos</td>
</tr>
<tr>
<td>V15.86</td>
<td>Personal history of contact with and (suspected) exposure to lead</td>
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<tr>
<td>V26.32</td>
<td>Other genetic testing of female — (Use additional code to identify recurrent pregnancy loss: 629.81, 646.3)</td>
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<tr>
<td>V26.39</td>
<td>Other genetic testing of male</td>
</tr>
<tr>
<td>V29.3</td>
<td>Observation for suspected genetic or metabolic condition</td>
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</table>

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CCI Version 20.0
Also not with 88738: 88740-88741
Also not with 88741: 83045

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Cell count, miscellaneous body fluids (eg, cerebrospinal fluid, joint fluid), except blood; with differential count.

**Explanation**

CSF cell count may also be referred to as a CSF analysis or spinal fluid analysis; joint fluid cell count may also be referred to as synovial fluid analysis. In 89050, a manual nucleated blood cell count using a hemacytometer is performed on fluids obtained during a separately reportable spinal puncture or arthrocentesis. In 89051, a differential cell study using manually prepared smears or a cytocentrifuge is performed in addition to the cell count. Depending on the suspected condition, a number of separately reportable additional tests may be performed.

**Coding Tips**

To report spinal puncture for obtaining cerebrospinal fluid, consult CPT code 62270. To report arthrocentesis for obtaining synovial joint fluid consult CPT codes 20600-20610.

**Terms To Know**

CSF, Cerebrospinal fluid.

synovia. Clear fluid lubricant of joints, bursae, and tendon sheaths, secreted by the synovial membrane.

**ICD-9-CM Diagnostic Codes**

- 049.1 Meningitis due to adenovirus
- 049.8 Other specified non-arthropod-borne viral diseases of central nervous system
- 049.9 Unspecified non-arthropod-borne viral disease of central nervous system
- 094.2 Syphilitic meningitis — (Use additional code to identify any associated mental disorder)
- 094.81 Syphilitic encephalitis — (Use additional code to identify any associated mental disorder)
- 094.86 Syphilitic acoustic neuritis — (Use additional code to identify any associated mental disorder)
- 094.9 Unspecified neurosyphilis — (Use additional code to identify any associated mental disorder)
- 202.81 Other malignant lymphomas of lymph nodes of head, face, and neck
- 322.2 Chronic meningitis
- 322.9 Unspecified meningitis
- 323.9 Unspecified causes of encephalitis, myelitis, and encephalomyelitis
- 340 Multiple sclerosis
- 345.90 Unspecified epilepsy without mention of intractable epilepsy
- 345.91 Unspecified epilepsy with intractable epilepsy

**CCI Version 20.0**

Also not with 89051: 89050

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Leukocyte assessment, fecal, qualitative or semiquantitative

Explanation
A fecal material leukocyte count is done on a stool sample by direct smear and stain to detect the presence of WBCs and aid in the differential diagnosis of diarrheal disease. Certain conditions are associated with marked fecal leukocyte presence, moderate numbers present, and the absence of fecal leukocytes. Fecal leukocyte absence indicates invasive toxic bacterial infection, giardiasis, or viral infection. Moderate and marked leukocytes indicate antibiotic-associated colitis, shigellosis, amebiasis, and salmonellosis. The methylene blue stain test for fecal polymorphonuclear leukocytes has a high sensitivity for bacterial diarrhea detection but this test does not preempt the use of a culture.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

ICD-9-CM Diagnostic Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnostic Code</th>
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<tbody>
<tr>
<td>003.0</td>
<td>Salmonella gastroenteritis</td>
</tr>
<tr>
<td>004.0</td>
<td>Shigella dysenteriae</td>
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<tr>
<td>004.1</td>
<td>Shigella flexneri</td>
</tr>
<tr>
<td>004.2</td>
<td>Shigella boydii</td>
</tr>
<tr>
<td>004.3</td>
<td>Shigella sonnei</td>
</tr>
<tr>
<td>004.8</td>
<td>Other specified shigella infections</td>
</tr>
<tr>
<td>004.9</td>
<td>Unspecified shigellosis</td>
</tr>
<tr>
<td>005.0</td>
<td>Staphylococcal food poisoning</td>
</tr>
<tr>
<td>005.1</td>
<td>Botulism food poisoning</td>
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<tr>
<td>005.2</td>
<td>Food poisoning due to Clostridium perfringens (C. welchii)</td>
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<tr>
<td>005.4</td>
<td>Food poisoning due to Vibrio parahaemolyticus</td>
</tr>
<tr>
<td>005.81</td>
<td>Food poisoning due to Vibrio vulnificus</td>
</tr>
<tr>
<td>005.89</td>
<td>Other bacterial food poisoning</td>
</tr>
<tr>
<td>005.9</td>
<td>Unspecified food poisoning</td>
</tr>
<tr>
<td>006.0</td>
<td>Acute amebic dysentery without mention of abscess</td>
</tr>
<tr>
<td>006.1</td>
<td>Chronic intestinal amebiasis without mention of abscess</td>
</tr>
<tr>
<td>006.2</td>
<td>Amebic nontyphoidal colitis</td>
</tr>
<tr>
<td>006.9</td>
<td>Unspecified amebiasis</td>
</tr>
<tr>
<td>007.0</td>
<td>Balantidiasis</td>
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<tr>
<td>007.1</td>
<td>Giardiasis</td>
</tr>
<tr>
<td>007.2</td>
<td>Coccidiosis</td>
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<tr>
<td>007.3</td>
<td>Intestinal trichomoniasis</td>
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<tr>
<td>007.4</td>
<td>Cryptosporidiosis</td>
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<td>007.5</td>
<td>Cyclosporiasis</td>
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<tr>
<td>007.8</td>
<td>Other specified protozoal intestinal diseases</td>
</tr>
<tr>
<td>007.9</td>
<td>Unspecified protozoal intestinal disease</td>
</tr>
<tr>
<td>008.00</td>
<td>Intestinal infection due to unspecified E. coli</td>
</tr>
<tr>
<td>008.01</td>
<td>Intestinal infection due to enteropathogenic E. coli</td>
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<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>008.02</td>
<td>Intestinal infection due to enterotoxigenic E. coli</td>
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<tr>
<td>008.03</td>
<td>Intestinal infection due to enteroinvasive E. coli</td>
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<tr>
<td>008.04</td>
<td>Intestinal infection due to enterohemorrhagic E. coli</td>
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<tr>
<td>008.09</td>
<td>Intestinal infection due to other intestinal E. coli infections</td>
</tr>
<tr>
<td>008.1</td>
<td>Intestinal infection to Arizona group of paracolon bacilli</td>
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<td>008.2</td>
<td>Intestinal infection due to aerobacter aerogenes</td>
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<td>008.3</td>
<td>Intestinal infections due to proteus (mirabilis) (morgani)</td>
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<td>008.41</td>
<td>Intestinal infections due to staphylococcus</td>
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<td>008.42</td>
<td>Intestinal infections due to pseudomonas</td>
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<td>008.43</td>
<td>Intestinal infections due to campylobacter</td>
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<td>008.44</td>
<td>Intestinal infections due to yersinia enterocolitica</td>
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<td>Intestinal infections due to clostridium difficile</td>
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<td>008.46</td>
<td>Intestinal infections due to other anaerobes</td>
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<td>008.47</td>
<td>Intestinal infections due to other gram-negative bacteria</td>
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<td>008.49</td>
<td>Intestinal infection due to other organisms</td>
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<td>Intestinal infection due to unspecified bacterial enteritis</td>
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<td>Intestinal infection, enteritis due to rotavirus</td>
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<td>008.62</td>
<td>Intestinal infection, enteritis due to adenovirus</td>
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<td>008.63</td>
<td>Intestinal infection, enteritis due to Norwalk virus</td>
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<td>008.64</td>
<td>Intestinal infection, enteritis due to other small round viruses (SRVs)</td>
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<td>Enteritis due to calicivirus</td>
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<td>008.66</td>
<td>Intestinal infection, enteritis due to astrovirus</td>
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<td>Intestinal infection, enteritis due to enterovirus not elsewhere classified</td>
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<td>Intestinal infection, enteritis due to other viral enteritis</td>
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<td>009.0</td>
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<tr>
<td>009.1</td>
<td>Colitis, enteritis, and gastroenteritis of presumed infectious origin</td>
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<tr>
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<td>Infectious diarrhea</td>
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<td>Diarrhea of presumed infectious origin</td>
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<td>787.91</td>
<td>Diarrhea</td>
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
89125
89125  Fat stain, feces, urine, or respiratory secretions

Explanation
Prior to obtaining the stool specimen the patient is placed on a diet containing at least 60 gm of fat/day. A random stool specimen is obtained. A small amount of stool is prepared with Sudan III stain and examined microscopically. A random urine sample is obtained. Urine sediment is stained with Sudan III or IV and analyzed using light and polarized microscopy. Respiratory secretions may be obtained by separately reportable bronchoscopy and are stained and analyzed using techniques similar to those for other types of specimens.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
537.4  Fistula of stomach or duodenum
539.01  Infection due to gastric band procedure — (Use additional code to specify type of infection, such as: 038.0-038.9, 682.2) (Use additional code to identify organism: 041.00-041.9)
539.09  Other complications of gastric band procedure — (Use additional code(s) to further specify complication)
539.81  Infection due to other bariatric procedure — (Use additional code to specify type of infection, such as: 038.0-038.9, 682.2) (Use additional code to identify organism: 041.00-041.9)
539.89  Other complications of other bariatric procedure — (Use additional code(s) to further specify complication)
579.9  Unspecified intestinal malabsorption
581.0  Nephrotic syndrome with lesion of proliferative glomerulonephritis
581.1  Nephrotic syndrome with lesion of membranous glomerulonephritis
581.2  Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis
581.3  Nephrotic syndrome with lesion of minimal change glomerulonephritis
581.81  Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 084.9, 249.4, 250.4, 277.30-277.39, 446.0, 710.0)
581.89  Other nephrotic syndrome with specified pathological lesion in kidney

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CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.

581.9  Nephrotic syndrome with unspecified pathological lesion in kidney
584.5  Acute kidney failure with lesion of tubular necrosis

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
Meat fibers, feces

Explanation
An adequate intake of red meat is required for 24-72 hours prior to testing. A stool specimen is obtained. The specimen is mixed with 10 percent solution of eosin in ethanol and stained on a slide for three minutes and cover-slipped. It is analyzed microscopically for rectangular striated muscle fibers.

Coding Tips
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know
specimen. Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes
537.4 Fistula of stomach or duodenum
539.01 Infection due to gastric band procedure — (Use additional code to specify type of infection, such as: 038.0-038.9, 682.2) (Use additional code to identify organism: 041.00-041.9)
539.09 Other complications of gastric band procedure — (Use additional code(s) to further specify complication)
539.81 Infection due to other bariatric procedure — (Use additional code to specify type of infection, such as: 038.0-038.9, 682.2) (Use additional code to identify organism: 041.00-041.9)
539.89 Other complications of other bariatric procedure — (Use additional code(s) to further specify complication)
579.9 Unspecified intestinal malabsorption
581.0 Nephrotic syndrome with lesion of proliferative glomerulonephritis
581.1 Nephrotic syndrome with lesion of membranous glomerulonephritis
581.2 Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis
581.3 Nephrotic syndrome with lesion of minimal change glomerulonephritis
581.81 Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere — (Code first underlying disease: 084.9, 249.4, 250.4, 277.30-277.39, 446.0, 710.0)
581.89 Other nephrotic syndrome with specified pathological lesion in kidney
581.9 Nephrotic syndrome with unspecified pathological lesion in kidney
584.5 Acute kidney failure with lesion of tubular necrosis

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
89190  Nasal smear for eosinophils

**Explanation**
Two slides are normally obtained. Wright's stain is applied and the specimens are examined microscopically for the presence of eosinophils.

**Coding Tips**
If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

**Terms To Know**
et eosinophil. Nucleated, granular leukocytes found in the blood.

**ICD-9-CM Diagnostic Codes**
- 477.0  Allergic rhinitis due to pollen — (Use additional code to identify infectious organism)
- 477.9  Allergic rhinitis, cause unspecified — (Use additional code to identify infectious organism)
- 493.00  Extrinsic asthma, unspecified
- 493.01  Extrinsic asthma with status asthmaticus
- 493.10  Intrinsic asthma, unspecified
- 493.11  Intrinsic asthma with status asthmaticus
- 493.20  Chronic obstructive asthma, unspecified
- 493.21  Chronic obstructive asthma with status asthmaticus
- 493.30  Asthma, unspecified, unspecified status
- 493.90  Asthma, unspecified with status asthmaticus
- 580.0  Acute glomerulonephritis with lesion of proliferative glomerulonephritis
- 580.4  Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis
- 580.81  Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere — (Code first underlying disease: 002.0, 070.0-070.9, 072.79, 421.0)
- 580.89  Other acute glomerulonephritis with other specified pathological lesion in kidney
- 580.9  Acute glomerulonephritis with unspecified pathological lesion in kidney
- 691.0  Diaper or napkin rash
- 691.8  Other atopic dermatitis and related conditions
- 692.0  Contact dermatitis and other eczema due to detergents
- 692.1  Contact dermatitis and other eczema due to oils and greases
- 692.2  Contact dermatitis and other eczema due to solvents
- 692.3  Contact dermatitis and other eczema due to drugs and medicines in contact with skin — (Use additional E code to identify drug)
- 692.4  Contact dermatitis and other eczema due to other chemical products

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89220

89220  Sputum, obtaining specimen, aerosol induced technique (separate procedure)

**Explanation**

Sputum is obtained for a specimen by using an aerosol-induced technique. This is a separate procedure from the testing of the sputum sample, which is used to study airway inflammation in asthma and other respiratory disorders. Sputum induction is done to collect an adequate sample of secretions from the lower respiratory tract in patients who do not produce sputum spontaneously. This is done by having the patient inhale an aerosol of normal or hypertonic saline. Oral secretions or saliva are not a sputum sample and different protocols have the patient rinse and dry the mouth, spit into a separate cup, or brush his/her teeth and rinse before sample collection to avoid contamination. A nebulizer that provides sufficient output of saline aerosol is used. With patient cooperation, inhalation is done at regular intervals until enough sputum for a sample is expectorated or until the patient feels the urge to cough.

**Coding Tips**

This separate procedure by definition is usually a component of a more complex service and is not identified separately. When performed alone or with other unrelated procedures/services it may be reported. If performed alone, list the code; if performed with other procedures/services, list the code and append modifier 59.

**Terms To Know**

- **nebulizer**: Device pressurized by an oxygen tank for converting a liquid medication into a fine mist that can be inhaled.

**ICD-9-CM Diagnostic Codes**

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<td>Unspecified pulmonary tuberculosis, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture — (Use additional code to identify any associated silicosis, 502)</td>
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89230

Sweat collection by iontophoresis

Explanation

An iontophoresis sweat collection test, also called a chloride sweat test, is done to diagnose cystic fibrosis (CF) in children. Iontophoresis is the topical introduction of ionized drugs into the skin using direct current/positive current is applied to drive positively charged drug molecules into the tissues. Sweat production is stimulated to obtain the sweat sample by placing pads or filter paper soaked in pilocarpine onto clean skin on the arm or neck. Positive electrodes are strapped over the pads. The circuit is completed by likewise placing negative electrodes over water-soaked pads. Low-voltage electrical current is left on for about five minutes to repel small amounts of pilocarpine into the skin. The electrodes are removed and the skin under the positive electrode is cleansed and dried. Pre-weighed filter paper is placed over the area and secured firmly with cling wrap. The filter paper is removed again after about 30 minutes, placed back in its bottle, and weighed again to calculate the amount of sweat collected. Iontophoresis may be repeated until enough sample is collected; it is then analyzed for chloride and sodium content. People with CF have an increased amount of sodium and chloride (salt) in their sweat. Concentrations greater than 60 mmol/L are consistent with the diagnosis of CF.

Coding Tips

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know

iontophoresis. Method of localized transdermal medication delivery using a low-level electrical current applied to a drug solution in a patch. The drug ions are propelled through the skin into underlying tissue. Iontophoresis is used to alleviate joint or muscle pain in sports medicine. It is also the method used for introducing pilocarpine in the sweat test for cystic fibrosis and as a treatment for hyperhidrosis.

ICD-9-CM Diagnostic Codes

277.00 Cystic fibrosis without mention of meconium ileus — (Use additional code to identify any associated intellectual disabilities)

277.01 Cystic fibrosis with meconium ileus — (Use additional code to identify any associated intellectual disabilities)

277.03 Cystic fibrosis with gastrointestinal manifestations — (Use additional code to identify any associated intellectual disabilities)

277.09 Cystic fibrosis with other manifestations — (Use additional code to identify any associated intellectual disabilities)

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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89251-89253

89250 Culture of oocyte(s)/embryo(s), less than 4 days;
89251 with co-culture of oocyte(s)/embryos

Explanation
Eggs (oocytes) are aspirated transvaginally using ultrasound guidance in a separately reportable procedure. Eggs or previously fertilized embryos are kept in an incubator in a Petri dish culture for less than four days in 89250. Code 89251 is reserved for those instances when co-culture techniques over and above those normally required are performed.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know

- **embryo.** Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week.
- **infertility.** Inability or decreased ability to produce offspring. **female i.** Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body’s functioning, such as a failure to ovulate due to stressors.

Female infertility is reported with a code from ICD-9-CM category 628. **male i.** Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

- **specimen.** Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

ICD-9-CM Diagnostic Codes

- 606.0 Azoospermia
- 606.1 Oligospermia
- 606.9 Unspecified male infertility
- 628.2 Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
- 628.3 Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
- 628.8 Female infertility of other specified origin
- 628.9 Female infertility of unspecified origin

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
Also not with 89251: 89250
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
89253

89253 Assisted embryo hatching, microtechniques (any method)

Explanation
Assisted embryo hatching is performed in selected cases on the day of embryo transfer. A pipette is placed on one side of the embryo to keep it from moving. A very delicate, hollow needle called a hatching needle is placed on the other side of the embryo. An acidic solution is expelled from the needle against the outer shell (zona pellucida) of the embryo. The acidic solution digests a small area of the outer shell. The embryo is washed and replaced in the culture solution in the incubator.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know

**embryo.** Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week.

**infertility.** Inability or decreased ability to produce offspring. **female.** Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Male infertility is reported with a code from category 606.

**ICD-9-CM Diagnostic Codes**

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<td>Infertility due to extratesticular causes</td>
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<td>628.2</td>
<td>Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)</td>
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Oocyte identification from follicular fluid

Explanation
Because the egg (oocyte) is microscopic, only the follicle (fluid filled structure surrounding the egg) can be seen during the ultrasound-guided retrieval. Upon aspiration of the follicle, specially trained personnel use a microscope to search for the oocyte-cumulus complex, which includes the egg and surrounding cumulus cells from the ovary. This is accomplished by pouring the collected fluid into flat dishes and using a microscope to search for eggs.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know
Infertility. Inability or decreased ability to produce offspring. Female. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body’s functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. Male. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0 Azoospermia
606.1 Oligospermia
606.8 Infertility due to extratesticular causes
606.9 Unspecified male infertility
628.2 Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
628.3 Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
628.8 Female infertility of other specified origin
628.9 Female infertility of unspecified origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
89255

89255  Preparation of embryo for transfer (any method)

Explanation
After the embryos have been cultured for two to six days, three to four healthy embryos are selected for transfer. Selected embryos are loaded into a transfer catheter. In a separately reportable procedure, the catheter is placed in the cervical canal and the embryos are transferred into the uterine cavity.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know

embryo. Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week.

infertility. Inability or decreased ability to produce offspring. female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes

606.0  Azoospermia
606.1  Oligospermia
606.8  Infertility due to extratesticular causes
606.9  Unspecified male infertility
628.2  Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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89257

89257  Sperm identification from aspiration (other than seminal fluid)

Explanation
A separately reportable testicular biopsy with aspiration is performed to obtain sperm. This may be required in cases where azoospermia is due to suspected obstruction to the spermatic ducts or in instances where the patient has had a failed reversal of a vasectomy. This procedure reports microscopic examination of aspirated fluid for the presence of sperm. If sperm are identified, further evaluation services may be performed and would be reported separately.

Coding Tips
To report cryopreservation of reproductive tissue, testicular, consult CPT code 89335.

Terms To Know
aspirate. To withdraw fluid or air from a body cavity by suction.
in fertility. Inability or decreased ability to produce offspring. female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors.

Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0  Azoospermia
606.1  Oligospermia
606.8  Infertility due to extratesticular causes
606.9  Unspecified male infertility
628.2  Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
628.3  Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
628.8  Female infertility of other specified origin
628.9  Female infertility of unspecified origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
89261-89264

89260  Sperm isolation; simple prep (eg, sperm wash and swim-up) for insemination or diagnosis with semen analysis
89261  complex prep (eg, Percoll gradient, albumin gradient) for insemination or diagnosis with semen analysis

Explanation
Prior to insemination or further diagnostic studies, the sperm go through a spinning and washing process in a series of solutions. The purpose of this is to separate sperm from seminal fluids, allowing the sperm to go through a process referred to as capacitation. Capacitation is an invisible change mature spermatozoa must undergo to acquire accelerated movement, allowing them to navigate through the uterus and fallopian tube. Code 86261, complex prep, includes a Percoll gradient and albumin gradient. This procedure includes a semen analysis (count, motility, volume and differential).

Coding Tips
If semen is analyzed without sperm wash or swim-up, consult CPT code 89320.

Terms To Know
infertility. Inability or decreased ability to produce offspring. female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypotalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0  Azoospermia
606.1  Oligospermia
606.8  Infertility due to extratesticular causes
606.9  Unspecified male infertility
628.2  Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
628.3  Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
628.8  Female infertility of other specified origin
628.9  Female infertility of unspecified origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
80500-80502, 89321
Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Insemination of oocytes

Explanation
Insemination requires a sperm cell to be introduced to an egg (oocyte) for fertilization procedures. The sperm is prepared through a washing method, which separates the sperm cells from the seminal fluid. The washing filters out white blood cells, prostaglandins, and other debris, as well as cells with less motility, to provide the highest concentration of viable sperm. Once the concentrated spermatozoa have been prepared, they are placed in a culture medium with the eggs. If injection is required for fertilization, the protective coating of cells is removed from the egg and the sperm cell is directly injected.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know
Infertility. Inability or decreased ability to produce offspring. Female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body’s functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. Male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

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628.8 Female infertility of other specified origin
628.9 Female infertility of unspecified origin
This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.
89272

89272  Extended culture of oocyte(s)/embryo(s), 4-7 days

Explanation
Culture of eggs (oocytes) or embryos usually occurs for 48 to 72 hours. This code describes an extended period of time for the cells to incubate in a culture medium, which will improve the identification of the most viable embryos. It is sometimes necessary to wait up to five days for the embryo to become a blastocyst before implantation due to high risk of multiple gestation or repeated IVF failures.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know
Infertility. Inability or decreased ability to produce offspring. Female infertility. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. Male infertility. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.

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89281-89290

89280 Assisted oocyte fertilization, microtechnique; less than or equal to 10 oocytes
89281 greater than 10 oocytes

Explanation
Assisted oocyte fertilization is done with microtechnique. A single sperm is injected into the egg (oocyte) to enable fertilization when sperm counts are very low or when sperm are non-motile. It requires micromanipulation of the sperm, which is also referred to as microtechnique. The usual method involves intracytoplasmic sperm injection (ICSI). Using ICSI technique, the mature egg is held in place with a holding pipette. A very delicate, sharp, hollow needle is used to immobilize and pick up a single sperm. This needle is inserted through the egg's outer shell (zona pellucida) into the cytoplasm of the egg. The sperm is injected into the cytoplasm and the needle removed. The eggs are checked the next day for evidence of fertilization. Report 89280 for 10 oocytes or less and 89281 for more than 10 oocytes.

Coding Tips
See CPT code range 58970-58976 for in vitro fertilization procedures.

Terms To Know
Infertility. Inability or decreased ability to produce offspring. Female infertility. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. Male infertility. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0 Azoospermia
606.1 Oligospermia
606.8 Infertility due to extratesticular causes
606.9 Unspecified male infertility
628.2 Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
628.3 Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
628.8 Female infertility of other specified origin
628.9 Female infertility of unspecified origin

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**89290-89300**

89290  
**Biopsy, oocyte polar body or embryo blastomere, microtechnique**  
(for pre-implantation genetic diagnosis); less than or equal to 5 embryos

89291  
**greater than 5 embryos**

**Explanation**

Biopsy of an egg (oocyte) polar body or embryo blastomere (an embryo with six to eight cells) is indicated for patients who carry genetic disorders such as Sickle cell anemia, hemophilia, Fragile X syndrome, and others, and for those experiencing difficulty with a successful IVF or ICSI. The process of a biopsy includes inserting a microneedle into a fertilized egg to extract polar bodies of the oocyte, or to extract a single cell from a six to eight cell embryo. Screenings are performed through the process of FISH (fluorescent in-situ hybridization) and PCR (polymerase chain reaction). During FISH, a small amount of DNA is analyzed through staining of fluorochromes. PCR is able to detect gene-sequences or single genes, which may have abnormal mutations. Report 89290 for a biopsy of five or less embryos and 89291 for six or more embryos.

**Coding Tips**

To report in vitro fertilization services, consult CPT codes 58970-58976.

**Terms To Know**

- **embryo.** Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week.
- **infertility.** Inability or decreased ability to produce offspring. **female.** Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. **male.** Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

**ICD-9-CM Diagnostic Codes**

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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**CCI Version 20.0**

No CCI Edits apply to this code.
89310-89325

89300  Semen analysis; presence and/or motility of sperm including Huhner test (post coital)
89310   motility and count (not including Huhner test)
89320   volume, count, motility, and differential
89321   sperm presence and motility of sperm, if performed
89322   volume, count, motility, and differential using strict morphologic criteria (eg, Kruger)

Explanation
Semen analysis is generally performed in specialized infertility/andrology laboratories. Sexual activity culminating in ejaculation should be avoided for a minimum of 48 hours prior to testing. In 89300, a post coital specimen is obtained using a cervical swab. The test is timed to coincide with ovulation. Semen is tested for the presence (quantity) and/or motility of sperm. In 89310-89322, semen is collected using a condom-like seminal fluid collection device or by masturbation into a sterile container. In 89310, only sperm movement (motility) and number (concentration or count that measures how many million sperm are in each milliliter of fluid) are performed. Code 89320 reports a semen analysis that includes measurement of the ejaculate’s volume, number, structure (shape) of sperm, sperm movement (motility), and direction of movement (forward motility). In addition, fluid thickness, acidity, and sugar content may be evaluated. Code 89321 tests only for the presence (quantity) and/or motility of sperm. In 89322, a detailed evaluation of the shape (morphology) is performed utilizing specially stained slides and microscopic examination of the sperm under high power magnification. In order to be considered normal, the sperm must meet a strict set of criteria regarding the shape and size of the head, mid-piece, and tail. A Kruger test is helpful in determining which reproductive techniques and methodologies may be most appropriate and successful. Tests reported with 89300-89322 may be accomplished using a variety of methods including semen function tests and computer-assisted sperm morphology/motility studies.

Coding Tips
Codes 89300 and 89321 represent tests that may be performed using a CLIA-waived test system. Laboratories with a CLIA-waived certificate must report these codes with modifier QW CLIA-waived test. See appendix 1 for CLIA-waived kits and test systems. To report Hyaluronan binding assay (HBA), consult CPT code 89398.

Terms To Know
Infertility. Inability or decreased ability to produce offspring. Female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. Male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0  Azospermia
606.1  Oligospermia
606.8  Infertility due to extratesticular causes
606.9  Unspecified male infertility
V26.21  Fertility testing

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

IOM References
100-2,15,20.1; 100-4,16,70.8

CCI Version 20.0
Also not with 89300: 80500-80502, 89310, 89321, G0027
Also not with 89310: 80500-80502, 89321, G0027
Also not with 89320: 80500-80502, 89300-89310, 89321, G0027
Also not with 89321: 89257, 89264
Also not with 89322: 89300-89321, G0027

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
**89325**

**89325  Sperm antibodies**

**Explanation**
This procedure tests for antisperm antibodies in both the male and female. Semen and cervical mucus are placed together in a medium. Antisperm antibodies bind with the sperm inhibiting movement and their ability to fertilize. The sperm will appear clumped together on microscopic examination.

**Coding Tips**
For medicolegal identification of sperm, consult CPT code 88125.

**Terms To Know**
- **antibody**: Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.
- **specimen**: Tissue cells or sample of fluid taken for analysis, pathologic examination, and diagnosis.

**ICD-9-CM Diagnostic Codes**
- 606.0  Azoospermia
- 606.1  Oligospermia
- 606.8  Infertility due to extratesticular causes
- 606.9  Unspecified male infertility
- 628.8  Female infertility of other specified origin
- V26.21  Fertility testing

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

**IOM References**
100-2,15,20.1

**CCI Version 20.0**
80500-80502

Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
89330-89331

89329  Sperm evaluation; hamster penetration test
89330  cervical mucus penetration test, with or without spinbarkheit test

Explanation

Code 89329 is also called sperm penetration assay (SPA) or hamster zona free ovum (HZFO) and tests the ability of the sperm to penetrate a hamster egg, which has been stripped of the zona pellucida (outer membrane). The patient should abstain from sexual activity culminating in ejaculation for a minimum of 48 hours. Semen is collected postcoitus using a condom-like seminal fluid collection device or by masturbation into a sterile container. Upon receiving the specimen in the laboratory, the sperm is washed and placed in a culture medium along with a single hamster egg. It is examined periodically using phase contrast microscopy. The test measures the ability of sperm to capacitate (invisible change which allows sperm to navigate rapidly forward), acrosome react (structural change fusing the outer membrane of the acrosome with the plasma membrane of the sperm head freeing enzymes in the acrosome which facilitate entry into the ovum), and fuse with the ovum. For code 89330, sperm mucus interaction is assessed in vitro. Human or bovine ovulatory mucus is placed in a capillary tube. Sperm penetration is measured over a period of 90 minutes. Sperm progression defined as those sperm that have progressed the farthest down the tube is measured. Patient sperm penetration can be compared with fertile sperm specimens using in vitro methods.

Coding Tips

If a specimen is transported to an outside laboratory, report code 99000 for handling or conveyance.

Terms To Know

Infertility. Inability or decreased ability to produce offspring. Female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes

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Sperm evaluation, for retrograde ejaculation, urine (sperm concentration, motility, and morphology, as indicated)

Explanation
Retrograde ejaculation, in which the seminal fluid travels backward into the bladder following ejaculation, is often seen in patients with diabetes, or in men following transurethral surgery at or near the bladder neck, dissection of the retroperitoneal lymph nodes, or spinal cord injuries. The patient may present with low semen volume, motility (movement), and sperm concentration (count). In a urinalysis performed immediately after ejaculation, the specimen is examined under the microscope for the presence of sperm. If detected, the specimen is further processed to evaluate the concentration, motility, and morphology (shape).

Coding Tips
For semen analysis on concurrent semen specimen, see codes 89300-89322 in conjunction with code 89331. Report code 81015 when detection of sperm in urine is performed.

Terms To Know
infertility. Inability or decreased ability to produce offspring. female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606. retrograde. Moving against the usual direction of flow.

ICD-9-CM Diagnostic Codes
606.0 Azoospermia
606.1 Oligospermia
606.8 Infertility due to extratesticular causes
606.9 Unspecified male infertility

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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Note: These CCI edits are used for Medicare. Other payers may reimburse on codes listed above.
Cryopreservation, reproductive tissue, testicular

**Explanation**

Storage of reproductive tissues is cryogenically maintained at an appropriate facility. A cryoprotectant is added to reduce cellular damage and the tissue is placed in vials, straws, or test tubes. The tissue is gradually frozen in the vapor of liquid nitrogen. Once frozen, the tissue is stored in liquid nitrogen at -196 degrees centigrade. Report 89335 for testicular reproductive tissue cryopreservation.

**Coding Tips**

To report in vitro fertilization procedures, consult CPT codes 58970-58999.

**Terms To Know**

*Infertility.* Inability or decreased ability to produce offspring. *Female i.* Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body’s functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. *Male i.* Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

**ICD-9-CM Diagnostic Codes**

- 606.0 Azoospermia
- 606.1 Oligospermia
- 606.8 Infertility due to extratesticular causes
- 606.9 Unspecified male infertility
- 628.2 Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)
- 628.3 Female infertility of uterine origin — (Use additional code for any associated tuberculous endometriosis: 016.7)
- 628.4 Female infertility of cervical or vaginal origin
- 628.8 Female infertility of other specified origin
- 628.9 Female infertility of unspecified origin

This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

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89343-89352

89342 Storage (per year); embryo(s)
89343 sperm/semen
89344 reproductive tissue, testicular/ovarian
89346 oocyte(s)

Explanation
These codes report the long-term maintenance of preserved reproductive tissue samples and fertilized embryos in an appropriate storage facility per year. Report 89342 for embryo(s), 89343 for sperm/semen, 89344 for testicular or ovarian tissue, and 89346 for oocyte(s).

Coding Tips
To report cryopreservation of embryo, consult CPT code 89258. To report cryopreservation of sperm, consult CPT code 89259.

Terms To Know
embryo. Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week. infertility. Inability or decreased ability to produce offspring. female i. Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. male i. Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

ICD-9-CM Diagnostic Codes
606.0 Azoospermia
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628.4 Female infertility of cervical or vaginal origin
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This list of ICD-9-CM codes might not be all-inclusive. Please refer to your Laboratory Cross Coder to determine if other diagnoses are applicable.

CCI Version 20.0
No CCI Edits apply to this code.
**Thawing of cryopreserved embryo(s)**

**Explanation**
Thawing of cryopreserved tissue requires thawing in different substances for set lengths of time so as to maintain the integrity of the specimen and prevent damage by thawing too quickly. The cryovial is removed from the liquid nitrogen and placed at room temperature until ice crystals have dissolved. A waterbath is prepared at the desired temperature in which the specimen is placed. After the water bath, each specimen is placed in a series of solutions to complete the thawing process. Report 89352 for embryos, 89353 for sperm/semen, 89354 for reproductive testicular/ovarian tissue, and 89356 for oocytes.

**Coding Tips**
To report cryopreservation of embryo, consult CPT code 89258. To report cryopreservation of sperm, consult CPT code 89259.

**Terms To Know**
- **Embryo**: Developing cells of a new organism that will become a fetus; the period defined from the fourth day after fertilization to the end of the eighth week.
- **Infertility**: Inability or decreased ability to produce offspring. **Female i.** Inability to conceive for at least one year after regular intercourse in the absence of contraceptive measures. Infertility may be classified as primary, occurring in patients who have never conceived, or secondary, occurring in patients who have previously conceived. There are three basic types of infertility: functional, anatomic, and psychogenic. Functional infertility is due to impairment in hormonal interactions. Anatomic infertility can be the result of congenital malformation, scarring, or adhesions due to previous infection, atrophy, or surgery. Psychogenic infertility is caused by the effects of mental or emotional states on the body's functioning, such as a failure to ovulate due to stressors. Female infertility is reported with a code from ICD-9-CM category 628. **Male i.** Inadequate amount of sperm production or an abnormality in the structure or motility of the sperm that makes it unable to reach or penetrate the egg. Contributing factors may include varicose veins in the spermatic cord, undescended testicles, radiation, chemotherapy, removal of one or both testicles, hypothalamic or pituitary disorder, or drug use. Male infertility is reported with a code from category 606.

**ICD-9-CM Diagnostic Codes**
- 606.0 Azoospermia
- 606.1 Oligospermia
- 606.8 Infertility due to extratesticular causes
- 606.9 Unspecified male infertility
- 628.2 Female infertility of tubal origin — (Use additional code for any associated peritubal adhesions: 614.6)

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