Optum

Coding Companion

Cardiology/ Cardiothoracic/ Vascular Surgery

A comprehensive illustrated guide to coding and reimbursement

2025

optumcoding.com

Contents

Getting Started with Coding Companion

Coding Companion for Cardiology/Cardiothoracic/Vascular Surgery is designed to be a guide to the specialty procedures classified in the CPT® book. It is structured to help coders understand procedures and translate physician narrative into correct CPT codes by combining many clinical resources into one, easy-to-use source book.

The book also allows coders to validate the intended code selection by providing an easy-to-understand explanation of the procedure and associated conditions or indications for performing the various procedures. As a result, data quality and reimbursement will be improved by providing code-specific clinical information and helpful tips regarding the coding of procedures.

CPT/HCPCS Codes

For ease of use, evaluation and management codes related to cardiology/cardiothoracic/vascular surgery are listed first in the *Coding Companion*. All other CPT codes in *Coding Companion* are listed in ascending numeric order. Included in the code set are all surgery, radiology, laboratory, and medicine codes pertinent to the specialty. Each CPT/HCPCS code is followed by its official CPT code description.

Resequencing of CPT Codes

The American Medical Association (AMA) employs a resequenced numbering methodology. According to the AMA, there are instances where a new code is needed within an existing grouping of codes, but an unused code number is not available to keep the range sequential. In the instance where the existing codes were not changed or had only minimal changes, the AMA assigned a code out of numeric sequence with the other related codes being grouped together. The resequenced codes and their descriptions have been placed with their related codes, out of numeric sequence.

CPT codes within the Optum *Coding Companion* series display in their resequenced order. **Resequenced codes are enclosed in brackets [ ] for easy identification.**

ICD-10-CM

The most current ICD-10-CM codes are provided, each listed with their full official description. Refer to the ICD-10-CM book for more ICD-10-CM coding information.

Detailed Code Information

One or more columns are dedicated to each procedure or service or to a series of similar procedures/services. Following the specific CPT code and its narrative, is a combination of features.

Appendix Codes and Descriptions

Some CPT/HCPCS codes are presented in a less comprehensive format in the appendix. The CPT/HCPCS codes appropriate to the specialty are included in the appendix with the official CPT/HCPCS code description, followed by an easy-to-understand explanation.

The codes in the appendix are presented in the following order:

- HCPCS
- E/M
- Surgery
- Radiology
- Pathology and Laboratory
- Medicine Services
- Category III

Category II codes are not published in this book. Refer to the CPT book for code descriptions.

CCI Edits, RVUs, HCPCS, and Other Coding Updates

The *Coding Companion* includes the list of codes from the official Centers for Medicare and Medicaid Services' National Correct Coding Policy Manual for Part B Medicare Contractors that are considered to be an integral part of the comprehensive code or mutually exclusive of it and should not be reported separately. The codes in the Correct Coding Initiative (CCI) section are from version 29.3, the most current version available at press time. CCI edits are updated quarterly and will be posted on the product updates page listed below. The website address is http://www.optumcoding.com/ProductUpdates/. The 2025 edition password is: **XXXXXX.** Log in frequently to ensure you receive the most current updates.

Index

A comprehensive index is provided for easy access to the codes. The index entries have several axes. A code can be looked up by its procedural name or by the diagnoses commonly associated with it. Codes are also indexed anatomically. For example:

32800 Repair lung hernia through chest wall

could be found in the index under the following main terms:

Hernia
Repair
Lung, 32800

or **Repair**
Lung
Hernia, 32800

General Guidelines

Providers

The AMA advises coders that while a particular service or procedure may be assigned to a specific section, it is not limited to use only by that specialty group (see paragraphs two and three under "Instructions for Use of the CPT Codebook" on page xv of the CPT Book). Additionally, the procedures and services listed throughout the book are for use by any qualified physician or other qualified health care professional or entity (e.g., hospitals, laboratories, or home health agencies). Keep in mind that there may be other policies or guidance that can affect who may report a specific service.

Supplies

Some payers may allow physicians to separately report drugs and other supplies when reporting the place of service as office or other nonfacility setting. Drugs and supplies are to be reported by the facility only when performed in a facility setting.

Professional and Technical Component

Radiology and some pathology codes often have a technical and a professional component. When physicians do not own their own equipment and send their patients to outside testing facilities, they should append modifier 26 to the procedural code to indicate they performed only the professional component.

Sample Page and Key

The following pages provide a sample page from the book displaying the format of *Coding Companion* with each element identified and explained.

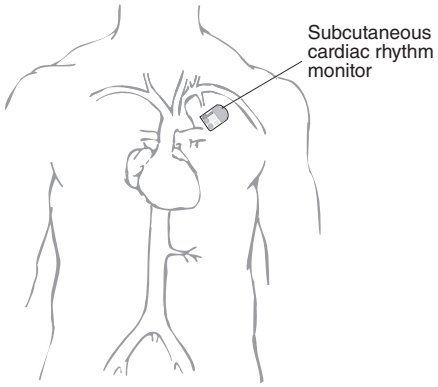
33285-33286

1

33285 Insertion, subcutaneous cardiac rhythm monitor, including programming

33286 Removal, subcutaneous cardiac rhythm monitor

2



Explanation

3

The physician implants or removes an electronic device that is capable of recording heartrates and rhythms for over one year (subcutaneous cardiac rhythm monitor, cardiac event recorder, implantable loop recorder or ILR). In 33285, the physician uses a scalpel to make a small parasternal incision and dissects down to the level of subcutaneous tissue located over the left pectoral or mammary area. The monitor is implanted into the subcutaneous tissue. Electrodes that sense heart activity are located on the surface of the monitor, making it unnecessary to place transvenous leads. The device continuously and automatically monitors the heart's electrical activity when sensing the patient's rapid, irregular, or slow heartrate or can also be prompted by the patient in the course of experiencing symptoms. Programming of the device is included in this service. In 33286, the physician removes the monitor when sufficient information regarding the heart's activities has been obtained or when the batteries run out by incising down to the level of the recorder and removing it. In either surgery, the incision is closed with sutures. This type of recorder is capable of storing many separate events. When appropriate, a "programmer" is used by the physician to retrieve the information that can be displayed, stored, or printed.

Coding Tips

4

Code 33285 includes programming. For subsequent analysis and/or reprogramming, see 93285, 93291, and 93298.

ICD-10-CM Diagnostic Codes

5

G90.09	Other idiopathic peripheral autonomic neuropathy
I25.2	Old myocardial infarction
I44.0	Atrioventricular block, first degree
I44.1	Atrioventricular block, second degree
I44.2	Atrioventricular block, complete
I45.5	Other specified heart block
I45.6	Pre-excitation syndrome
I47.0	Re-entry ventricular arrhythmia
I47.11	Inappropriate sinus tachycardia, so stated

Associated HCPCS Codes

6

C1764	Event recorder, cardiac (implantable)
E0616	Implantable cardiac event recorder with memory, activator, and programmer

AMA: **33285** 2019,Oct; 2019,Apr **33286** 2019,Apr

7

Relative Value Units/Medicare Edits

8

Non-Facility RVU	Work	PE	MP	Total
33285	1.53	128.57	0.35	130.45
33286	1.5	2.1	0.34	3.94
Facility RVU	**Work**	**PE**	**MP**	**Total**
33285	1.53	0.71	0.35	2.59
33286	1.5	0.71	0.34	2.55

	FUD	Status	MUE	Modifiers				IOM Reference
33285	0	A	1(3)	51	N/A	N/A	N/A	None
33286	0	A	1(3)	51	N/A	N/A	N/A	

* with documentation

Terms To Know

9

event recorder. Portable, ambulatory heart monitor worn by the patient that makes electrocardiographic recordings of the length and frequency of aberrant cardiac rhythm to help diagnose heart conditions and to assess pacemaker functioning or programming.

implantable cardiovascular monitor. Implantable electronic device that stores cardiovascular physiologic data such as intracardiac pressure waveforms collected from internal sensors or data such as weight and blood pressure collected from external sensors. The information stored in these devices is used as an aid in managing patients with heart failure and other cardiac conditions that are non-rhythm related. The data may be transmitted via local telemetry or remotely to a surveillance technician or an internet-based file server.

1. CPT/HCPCS Codes and Descriptions

This edition of *Coding Companion* is updated with CPT and HCPCS codes for year 2024.

The following icons are used in *Coding Companion:*

- ● This CPT code is new for 2024.
- ▲ This CPT code description is revised for 2024.
- ✚ This CPT code is an add-on code.

Add-on codes are not subject to bilateral or multiple procedure rules, reimbursement reduction, or appending modifier 50 or 51. Add-on codes describe additional intraservice work associated with the primary procedure performed by the same physician on the same date of service and are not reported as stand-alone procedures. Add-on codes for procedures performed on bilateral structures are reported by listing the add-on code twice.

- ★ This CPT code is identified by CPT as appropriate for audio-visual telemedicine services.

The Centers for Medicare and Medicaid Services (CMS) have identified services that may be performed via telehealth. Payers may require telehealth/telemedicine to be reported with place of service 02 Telehealth Provided Other than the Patient's Home or 10 Telehealth Provided in Patient's Home and modifier 93 or 95 appended. If specialized equipment is used at the originating site, HCPCS Level II code Q3014 may be reported. Individual payers should be contacted for additional or different guidelines regarding telehealth/telemedicine services. Documentation should include the type of technology used for the treatment in addition to the patient evaluation, treatment, and consents.

According to CPT guidelines, the codes listed below may be used for reporting audio-only telemedicine services, when modifier 93 Synchronous Telemedicine Service Rendered Via Telephone or Other Real-Time Interactive Audio-Only Telecommunications System, is appended. These procedures involve electronic communication using interactive telecommunications equipment that at a minimum includes audio.

90785	90791	90792	90832	90833	90834	90836
90837	90838	90839	90840	90845	90846	90847
92507	92508	92521	92522	92523	92524	96040
96110	96116	96121	96156	96158	96159	96160
96161	96164	96165	96167	96168	96170	96171
97802	97803	97804	99406	99407	99408	99409
99497	99498					

2. Illustrations

The illustrations that accompany the *Coding Companion* series provide coders a better understanding of the medical procedures referenced by the codes and data. The graphics offer coders a visual link between the technical language of the operative report and the cryptic descriptions accompanying the codes. Although most pages will have an illustration, there will be some pages that do not.

3. Explanation

Every CPT code or series of similar codes is presented with its official CPT code description. However, sometimes these descriptions do not provide the coder with sufficient information to make a proper code selection. In *Coding Companion*, an easy-to-understand step-by-step clinical description of the procedure is provided. Technical language that might be used by the physician is included and defined. *Coding Companion* describes the most common method of performing each procedure.

4. Coding Tips

Coding tips provide information on how the code should be used, provides related CPT codes, and offers help concerning common billing errors, modifier usage, and anesthesia. This information comes from consultants and subject matter experts at Optum and from the coding guidelines provided in the CPT book and by the Centers for Medicare and Medicaid Services (CMS).

5. ICD-10-CM Diagnostic Codes

ICD-10-CM diagnostic codes listed are common diagnoses or reasons the procedure may be necessary. This list in most cases is inclusive to the specialty. Some ICD-10-CM codes are further identified with the following icons:

- N Newborn: 0
- P Pediatric: 0-17
- M Maternity: 9-64
- A Adult: 15-124
- ♂ Male only
- ♀ Female Only
- ☑ Laterality

Please note that in some instances the ICD-10-CM codes for only one side of the body (right) have been listed with the CPT code. The associated ICD-10-CM codes for the other side and/or bilateral may also be appropriate. Codes that refer to the right or left are identified with the ☑ icon to alert the user to check for laterality. In some cases, not every possible code is listed and the ICD-10-CM book should be referenced for other valid codes.

6. Associated HCPCS Codes

Medicare and some other payers require the use of HCPCS Level II codes and not CPT codes when reporting certain services. The HCPCS codes and their description are displayed in this field. If there is not a HCPCS code for this service, this field will not be displayed.

7. AMA References

The AMA references for *CPT Assistant* are listed by CPT code, with the most recent reference listed first. Generally only the last six years of references are listed.

8. Relative Value Units/Medicare Edits

Medicare edits are provided for most codes. These Medicare edits were current as of November 2023.

The 2024 Medicare edits were not available at the time this book went to press. Updated 2024 values will be posted at https://www.optumcoding.com/ProductUpdates/. The 2025 edition password is **XXXXXX**.

Relative Value Units

In a resource based relative value scale (RBRVS), services are ranked based on the relative costs of the resources required to provide those services as opposed to the average fee for the service, or average prevailing Medicare charge. The Medicare RBRVS defines three distinct components affecting the value of each service or procedure:

- Physician work component, reflecting the physician's time and skill
- Practice expense (PE) component, reflecting the physician's rent, staff, supplies, equipment, and other overhead
- Malpractice (MP) component, reflecting the relative risk or liability associated with the service
- Total RVUs are a sum of the work, PE, and MP RVUs

There are two groups of RVUs listed for each CPT code. The first RVU group is for facilities (Facility RVU), which includes provider services performed in hospitals, ambulatory surgical centers, or skilled nursing facilities. The second RVU group is for nonfacilities (Non-Facility RVU), which represents provider services performed in physician offices, patient's homes, or other nonhospital settings. The appendix includes RVU components for facility and non-facility. Because no values have been established by CMS for the Category III codes, no relative value unit/grids are identified. Refer to the RBRVS tool or guide for the RVUs

Evaluation and Management (E/M) Services Guidelines

E/M Guidelines Overview

The E/M guidelines have sections that are common to all E/M categories and sections that are category specific. Most of the categories and many of the subcategories of service have special guidelines or instructions unique to that category or subcategory. Where these are indicated, eg, "Hospital Inpatient and Observation Care," special instructions are presented before the listing of the specific E/M services codes. It is important to review the instructions for each category or subcategory. These guidelines are to be used by the reporting physician or other qualified health care professional to select the appropriate level of service. These guidelines do not establish documentation requirements or standards of care. The main purpose of documentation is to support care of the patient by current and future health care team(s). These guidelines are for services that require a face-to-face encounter with the patient and/or family/caregiver. (For 99211 and 99281, the face-to-face services may be performed by clinical staff.)

In the **Evaluation and Management** section (99202-99499), there are many code categories. Each category may have specific guidelines, or the codes may include specific details. These E/M guidelines are written for the following categories:

- Office or Other Outpatient Services
- Hospital Inpatient and Observation Care Services
- Consultations
- Emergency Department Services
- Nursing Facility Services
- Home or Residence Services
- Prolonged Service With or Without Direct Patient Contact on the Date of an Evaluation and Management Service

Classification of Evaluation and Management (E/M) Services

The E/M section is divided into broad categories, such as office visits, hospital inpatient or observation care visits, and consultations. Most of the categories are further divided into two or more subcategories of E/M services. For example, there are two subcategories of office visits (new patient and established patient) and there are two subcategories of hospital inpatient and observation care visits (initial and subsequent). The subcategories of E/M services are further classified into levels of E/M services that are identified by specific codes.

The basic format of codes with levels of E/M services based on medical decision making (MDM) or time is the same. First, a unique code number is listed. Second, the place and/or type of service is specified (eg, office or other outpatient visit). Third, the content of the service is defined. Fourth, time is specified. (A detailed discussion of time is provided in the Guidelines for Selecting Level of Service Based on Time.)

The place of service and service type are defined by the location where the face-to-face encounter with the patient and/or family/caregiver occurs. For example, service provided to a nursing facility resident brought to the office is reported with an office or other outpatient code.

New and Established Patients

Solely for the purposes of distinguishing between new and established patients, **professional services** are those face-to-face services rendered by physicians and other qualified health care professionals who may report evaluation and management services. A new patient is one who has not received any professional services from the physician or other qualified health care professional or another physician or other qualified health care professional of the **exact** same specialty **and subspecialty** who belongs to the same group practice, within the past three years.

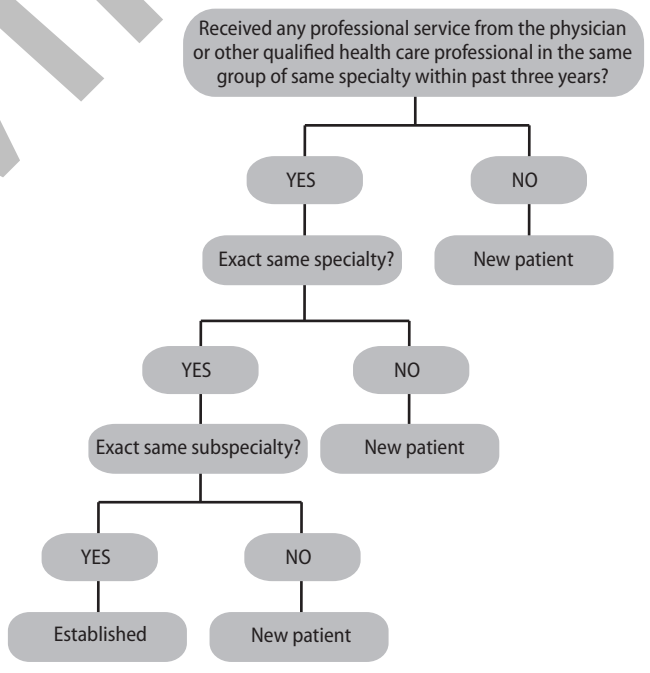
An established patient is one who has received professional services from the physician or other qualified health care professional or another physician or other qualified health care professional of the **exact** same specialty **and subspecialty** who belongs to the same group practice, within the past three years. See Decision Tree for New vs Established Patients.

In the instance where a physician or other qualified health care professional is on call for or covering for another physician or other qualified health care professional, the patient's encounter will be classified as it would have been by the physician or other qualified health care professional who is not available. When advanced practice nurses and physician assistants are working with physicians, they are considered as working in the **exact** same specialty **and subspecialty** as the physician.

No distinction is made between new and established patients in the emergency department. E/M services in the emergency department category may be reported for any new or established patient who presents for treatment in the emergency department.

The Decision Tree for New vs Established Patients is provided to aid in determining whether to report the E/M service provided as a new or an established patient encounter.

Decision Tree for New vs Established Patients



Initial and Subsequent Services

Some categories apply to both new and established patients (eg, hospital inpatient or observation care). These categories differentiate services by whether the service is the initial service or a subsequent service. For the purpose of distinguishing between initial or subsequent visits, professional services are those face-to-face services rendered by physicians and other qualified health care professionals who may report evaluation and management services. An initial service is when the patient has not received any professional services from the physician or

AMA CPT® Evaluation and Management (E/M) Services Guidelines reproduced with permission of the American Medical Association.

▶ ◀ = Contains new or revised text

99202-99205

▲★**99202** Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and straightforward medical decision making. When using total time on the date of the encounter for code selection, 15 minutes must be met or exceeded.

▲★**99203** Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and low level of medical decision making. When using total time on the date of the encounter for code selection, 30 minutes must be met or exceeded.

▲★**99204** Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and moderate level of medical decision making. When using total time on the date of the encounter for code selection, 45 minutes must be met or exceeded.

▲★**99205** Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and high level of medical decision making. When using total time on the date of the encounter for code selection, 60 minutes must be met or exceeded.

Explanation

Providers report these codes for new patients being seen in the doctor's office, a multispecialty group clinic, or other outpatient environment. All require a medically appropriate history and/or examination. Code selection is based on the level of medical decision making (MDM) or total time personally spent by the physician and/or other qualified health care professional(s) on the date of the encounter. Factors to be considered in MDM include the number and complexity of problems addressed during the encounter, amount and complexity of data requiring review and analysis, and the risk of complications and/or morbidity or mortality associated with patient management. The most basic service is represented by 99202, which entails straightforward MDM. If time is used for code selection, a total time of 15 minutes must be met or exceeded on the day of the encounter. Report 99203 for a visit requiring a low level of MDM or meeting or exceeding 30 minutes of total time; 99204 for a visit requiring a moderate level of MDM or meeting or exceeding 45 minutes of total time; and 99205 for a visit requiring a high level of MDM or meeting or exceeding 60 minutes of total time.

Coding Tips

These codes are used to report office or other outpatient services for a new patient. A medically appropriate history and physical examination, as determined by the treating provider, should be documented. The level of history and physical examination are not considered when determining the level of service. Codes should be selected based upon the current CPT Medical Decision Making table. Alternatively, time alone may be used to select the appropriate level of service. Total time for reporting these services includes face-to-face and non-face-to-face time personally spent by the physician or other qualified health care professional on the date of the encounter. Medicare and the CPT codebook have identified these codes as telehealth/telemedicine services. Telemedicine services may be reported by the performing provider by adding modifier 95 to the procedure code and/or using the appropriate place of service (POS) indicator; POS 02 for telehealth when the originating site is not the patient's home and POS 10 for telehealth services when the originating site is the patient's home. For prolonged services applicable to 99205, see 99417; for Medicare, see G2212. Medicare and commercial payers should be contacted regarding their coverage guidelines. For office or other outpatient services for an established patient, see 99211-99215.

ICD-10-CM Diagnostic Codes

The application of this code is too broad to adequately present ICD-10-CM diagnostic code links here. Refer to your ICD-10-CM book.

AMA: **99202** 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar; 2017,Aug; 2017,Jun **99203** 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar; 2017,Aug; 2017,Jun **99204** 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar; 2017,Aug; 2017,Jun **99205** 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar; 2017,Aug; 2017,Jun

Relative Value Units/Medicare Edits

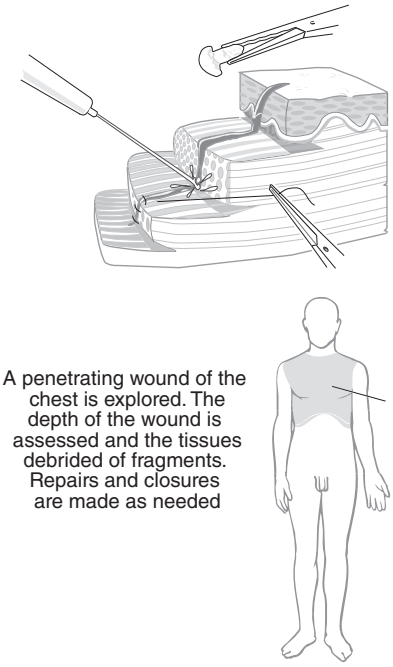
Non-Facility RVU	Work	PE	MP	Total
99202	0.93	1.14	0.08	2.15
99203	1.6	1.56	0.17	3.33
99204	2.6	2.11	0.23	4.94
99205	3.5	2.71	0.31	6.52
Facility RVU	**Work**	**PE**	**MP**	**Total**
99202	0.93	0.41	0.08	1.42
99203	1.6	0.68	0.17	2.45
99204	2.6	1.11	0.23	3.94
99205	3.5	1.54	0.31	5.35

	FUD	Status	MUE	Modifiers				IOM Reference
99202	N/A	A	1(2)	N/A	N/A	N/A	80*	100-04,11,40.1.3; 100-04,12,30.6.4; 100-04,12,30.6.10; 100-04,12,190.7; 100-04,12,230; 100-04,12,230.1; 100-04,18,80.2; 100-04,32,12.1
99203	N/A	A	1(2)	N/A	N/A	N/A	80*	
99204	N/A	A	1(2)	N/A	N/A	N/A	80*	
99205	N/A	A	1(2)	N/A	N/A	N/A	80*	

* with documentation

20101

20101 Exploration of penetrating wound (separate procedure); chest



Explanation

The physician explores a penetrating wound of the chest in the operating room, such as a gunshot or stab wound, to help identify damaged structures. Nerve, organ, and blood vessel integrity is assessed. The wound may be enlarged to help assess the damage. Debridement, removal of foreign bodies, and ligation or coagulation of minor blood vessels in the subcutaneous tissues, fascia, and muscle are also included in this code. Damaged tissues are debrided and repaired when possible. The wound is closed (if clean) or packed open if contaminated by the penetrating body.

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 or an X{EPSU} modifier. This code includes debridement, enlargement of the wound (to determine penetration), removal of foreign body, and minor blood vessel ligation or coagulation. If major repair is performed on a major structure or major blood vessel, requiring thoracotomy, then 20101 is not reported separately. For simple, intermediate, or complex repair that does not require enlargement of the wound, report the specific codes for repair instead of 20101. 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.

ICD-10-CM Diagnostic Codes

S21.111A Laceration without foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter

S21.112A Laceration without foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter

S21.121A Laceration with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter

S21.122A Laceration with foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter

S21.131A Puncture wound without foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter

S21.132A Puncture wound without foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter

S21.141A Puncture wound with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter

S21.142A Puncture wound with foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter

S21.151A Open bite of right front wall of thorax without penetration into thoracic cavity, initial encounter

S21.152A Open bite of left front wall of thorax without penetration into thoracic cavity, initial encounter

S21.211A Laceration without foreign body of right back wall of thorax without penetration into thoracic cavity, initial encounter

S21.212A Laceration without foreign body of left back wall of thorax without penetration into thoracic cavity, initial encounter

S21.221A Laceration with foreign body of right back wall of thorax without penetration into thoracic cavity, initial encounter

S21.222A Laceration with foreign body of left back wall of thorax without penetration into thoracic cavity, initial encounter

S21.231A Puncture wound without foreign body of right back wall of thorax without penetration into thoracic cavity, initial encounter

S21.232A Puncture wound without foreign body of left back wall of thorax without penetration into thoracic cavity, initial encounter

S21.241A Puncture wound with foreign body of right back wall of thorax without penetration into thoracic cavity, initial encounter

S21.242A Puncture wound with foreign body of left back wall of thorax without penetration into thoracic cavity, initial encounter

S21.251A Open bite of right back wall of thorax without penetration into thoracic cavity, initial encounter

S21.252A Open bite of left back wall of thorax without penetration into thoracic cavity, initial encounter

S29.021A Laceration of muscle and tendon of front wall of thorax, initial encounter

S29.022A Laceration of muscle and tendon of back wall of thorax, initial encounter

S29.091A Other injury of muscle and tendon of front wall of thorax, initial encounter

S29.092A Other injury of muscle and tendon of back wall of thorax, initial encounter

S29.8XXA Other specified injuries of thorax, initial encounter

Relative Value Units/Medicare Edits

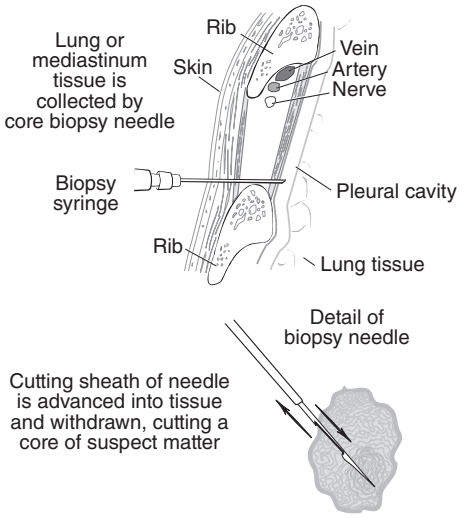
Non-Facility RVU	Work	PE	MP	Total
20101	3.23	13.52	0.8	17.55
Facility RVU	**Work**	**PE**	**MP**	**Total**
20101	3.23	2.24	0.8	6.27

	FUD	Status	MUE	Modifiers				IOM Reference
20101	10	A	2(3)	51	N/A	N/A	N/A	None

* with documentation

32408

32408 Core needle biopsy, lung or mediastinum, percutaneous, including imaging guidance, when performed



Explanation

The physician obtains a sample of the lung or the mediastinum (the tissues in the center of the chest between the two lung cavities) by puncturing through the space between two of the ribs with a needle. The procedure is often done under radiological guidance, which is included in this code when performed, to assure more precise placement of the needle. Using a core biopsy needle, the physician passes the needle over the top of a rib, punctures through the chest tissues, enters the pleural cavity, and punctures the area of concern in the lung or the mediastinum. With the end of the needle in the chest cavity, the physician withdraws a piece of tissue. The needle is withdrawn and the puncture site covered with a bandage.

Coding Tips

This code is reported only once per lesion sampled in a single session. Imaging guidance (76942, 77002, 77012, 77021) is included in this procedure and is not reported separately. If multiple lesions are biopsied, report 32408 for each site taken on separate lesions and append modifier 59 to additional codes. For open biopsy of the lung, see 32096 and 32097. For biopsy of the mediastinum, open, see 39000 and 39010. For thoracoscopic (VATS) biopsy of the lung, pleura, pericardium, or mediastinal space, see 32604, 32606, 32607, 32608, and 32609. For fine needle aspiration, see 10004-10012 and 10021.

ICD-10-CM Diagnostic Codes

A15.0	Tuberculosis of lung
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung ☑
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung ☑
C34.2	Malignant neoplasm of middle lobe, bronchus or lung
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung ☑
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung ☑
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung ☑
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung ☑
C37	Malignant neoplasm of thymus
C38.1	Malignant neoplasm of anterior mediastinum
C38.2	Malignant neoplasm of posterior mediastinum
C38.8	Malignant neoplasm of overlapping sites of heart, mediastinum and pleura
C46.51	Kaposi's sarcoma of right lung ☑
C46.52	Kaposi's sarcoma of left lung ☑
C78.01	Secondary malignant neoplasm of right lung ☑
C78.02	Secondary malignant neoplasm of left lung ☑
C78.1	Secondary malignant neoplasm of mediastinum
C7A.090	Malignant carcinoid tumor of the bronchus and lung
C7A.091	Malignant carcinoid tumor of the thymus
C81.02	Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes
C81.12	Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes
C81.22	Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes
C81.32	Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes
C81.42	Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes
C81.72	Other Hodgkin lymphoma, intrathoracic lymph nodes
C82.02	Follicular lymphoma grade I, intrathoracic lymph nodes
C82.12	Follicular lymphoma grade II, intrathoracic lymph nodes
C82.32	Follicular lymphoma grade IIIa, intrathoracic lymph nodes
C82.52	Diffuse follicle center lymphoma, intrathoracic lymph nodes
C83.02	Small cell B-cell lymphoma, intrathoracic lymph nodes
C83.12	Mantle cell lymphoma, intrathoracic lymph nodes
C83.32	Diffuse large B-cell lymphoma, intrathoracic lymph nodes
C83.52	Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes
C83.72	Burkitt lymphoma, intrathoracic lymph nodes
D02.21	Carcinoma in situ of right bronchus and lung ☑
D02.22	Carcinoma in situ of left bronchus and lung ☑
D09.3	Carcinoma in situ of thyroid and other endocrine glands
D14.31	Benign neoplasm of right bronchus and lung ☑
D14.32	Benign neoplasm of left bronchus and lung ☑
D15.2	Benign neoplasm of mediastinum
D17.4	Benign lipomatous neoplasm of intrathoracic organs
D38.1	Neoplasm of uncertain behavior of trachea, bronchus and lung
D38.3	Neoplasm of uncertain behavior of mediastinum
D38.4	Neoplasm of uncertain behavior of thymus
D3A.090	Benign carcinoid tumor of the bronchus and lung
Z11.1	Encounter for screening for respiratory tuberculosis

AMA: **32408** 2023,Jan; 2021,Sep; 2021,Apr

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
32408	3.18	22.45	0.3	25.93
Facility RVU	**Work**	**PE**	**MP**	**Total**
32408	3.18	0.99	0.3	4.47

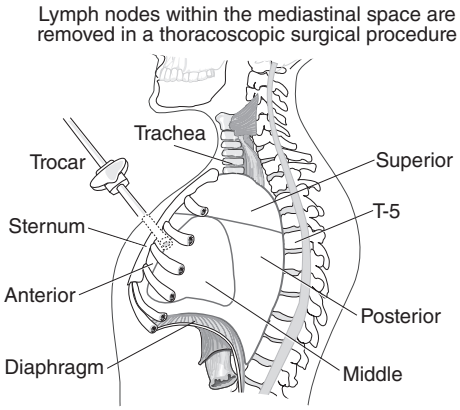
	FUD	Status	MUE	Modifiers				IOM Reference
32408	0	A	2(3)	51	N/A	N/A	N/A	None

* with documentation

 N Newborn: 0 P Pediatric: 0-17 M Maternity: 9-64 A Adult: 15-124 ♂ Male Only ♀ Female Only

32674

+ 32674 Thoracoscopy, surgical; with mediastinal and regional lymphadenectomy (List separately in addition to code for primary procedure)



Explanation

A regional and mediastinal lymphadenectomy is performed via a thoracoscopic approach. A small incision is made between two ribs and by blunt dissection and the use of a trocar the thoracic cavity is entered. The endoscope is passed through the trocar and into the chest cavity. Additional instruments may be inserted into the chest cavity through a second and/or third wound in the chest. Under direct visualization through the endoscope, the physician manipulates the instruments inserted through the secondary sites and removes the lymph nodes near the lungs, around the heart, and behind the trachea. The area is irrigated, and the operative incision is closed with sutures. A chest tube for drainage is usually inserted through the wound used for the thoracoscopy.

Coding Tips

Surgical thoracoscopy always includes a diagnostic thoracoscopy. Report 32674 in addition to 21601, 31760, 31766, 31786, 32096-32200, 32220-32320, 32440-32491, 32503-32505, 32601-32663, 32666, 32669-32673, 32815, 33025, 33030, 33050-33130, 39200-39220, 39560-39561, 43101, 43112, 43117-43118, 43122-43123, 43287, 43288, 43351, 60270, and 60505. For mediastinal and regional lymphadenectomy by thoracotomy, see 38746.

ICD-10-CM Diagnostic Codes

This/these CPT code(s) are add-on code(s). See the primary procedure code that this code is performed with for your ICD-10-CM code selections. Diagnostic code(s) would be the same as the actual procedure performed.

Relative Value Units/Medicare Edits

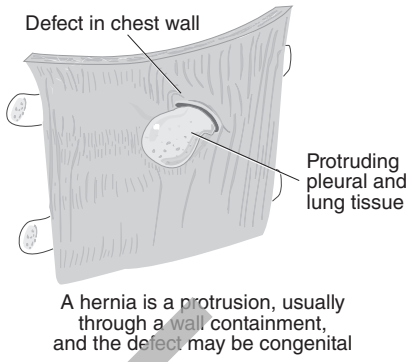
Non-Facility RVU	Work	PE	MP	Total
32674	4.12	1.17	0.98	6.27
Facility RVU	**Work**	**PE**	**MP**	**Total**
32674	4.12	1.17	0.98	6.27

	FUD	Status	MUE	Modifiers				IOM Reference
32674	N/A	A	1(2)	N/A	N/A	62*	80	None

* with documentation

32800

32800 Repair lung hernia through chest wall



Explanation

The physician repairs a hernia of the chest wall that allows the bulging of the lung through a defect in the chest wall. The physician makes an incision through the skin overlying the defect and carries the incision down to the inside lining of the chest cavity. The defect is repaired by the folding and suturing of tissues or the rotation of muscle and/or thick fibrous tissue flaps over the area and suturing of the flap over the defect. Alternately, the defect can be covered by a synthetic mesh material which is sutured in place. The incision is then closed in layers of sutures.

Coding Tips

Lung hernias may be congenital or acquired and result from a defect in the chest wall causing the lung to protrude through the defect.

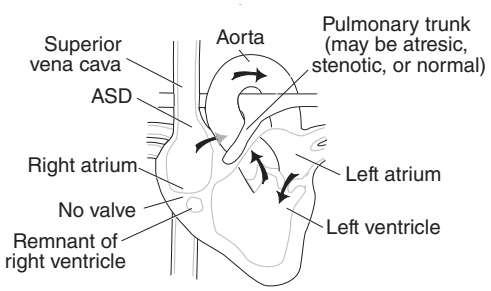
ICD-10-CM Diagnostic Codes

J98.4	Other disorders of lung
S21.311A	Laceration without foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter
S21.312A	Laceration without foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter
S21.321A	Laceration with foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter
S21.322A	Laceration with foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter
S21.331A	Puncture wound without foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter
S21.332A	Puncture wound without foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter
S21.341A	Puncture wound with foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter
S21.342A	Puncture wound with foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter
S21.351A	Open bite of right front wall of thorax with penetration into thoracic cavity, initial encounter
S21.352A	Open bite of left front wall of thorax with penetration into thoracic cavity, initial encounter
S21.411A	Laceration without foreign body of right back wall of thorax with penetration into thoracic cavity, initial encounter
S21.412A	Laceration without foreign body of left back wall of thorax with penetration into thoracic cavity, initial encounter

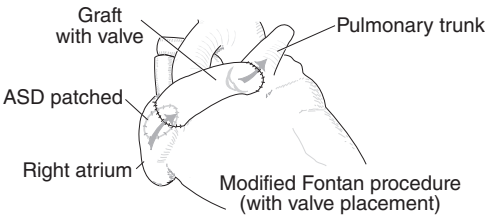
 N Newborn: 0 **P Pediatric: 0-17** **M Maternity: 9-64** **A Adult: 15-124** ♂ **Male Only** ♀ **Female Only**

33617

33617 Repair of complex cardiac anomalies (eg, single ventricle) by modified Fontan procedure



Example of tricuspid atresia with pulmonary atresia (single ventricle)



Explanation

This operation is usually considered to be the second stage of a Glen repair. Cardiopulmonary bypass with or without circulatory arrest is required. In this operation, blood flow is directed from the inferior caval vein, through a tunnel created inside the right atrium to the pulmonary artery. All systemic venous return is diverted away from the heart and directly into the pulmonary circulation. The right atrium is widely opened. A large patch of pericardium or Dacron is used for one wall of the tunnel. The lateral wall of the right atrium forms the other half of the tunnel. The tunnel leads from the inferior caval vein, where it joins the right atrium, to the undersurface of the pulmonary artery. The mouth of the tunnel is connected to a hole on the undersurface of the pulmonary artery. Previously, or at the same time, the superior caval vein will already have been directly connected to the upper surface of the pulmonary artery.

Coding Tips

If significant additional time and effort are documented, append modifier 22 and submit a cover letter and operative report. When 33617 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. When ligation and takedown of a systemic-to-pulmonary shunt is performed with this procedure, it should be reported separately, see 33924. For repair of complex cardiac anomalies (e.g., single ventricle with subaortic obstruction) by surgical enlargement of the interventricular septal defect, see 33610. For repair of a single ventricle with aortic outflow obstruction and aortic arch hypoplasia (hypoplastic left heart syndrome) (e.g., Norwood procedure), see 33619. Report 33617 with 33768 when a cavopulmonary anastomosis to a second superior vena cava is performed.

ICD-10-CM Diagnostic Codes

Q20.4 Double inlet ventricle

Q20.8 Other congenital malformations of cardiac chambers and connections

Q21.4 Aortopulmonary septal defect

Q21.8 Other congenital malformations of cardiac septa

Q21.9 Congenital malformation of cardiac septum, unspecified

Q23.4 Hypoplastic left heart syndrome

AMA: **33617** 2017,Dec

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
33617	39.09	15.01	9.41	63.51
Facility RVU	**Work**	**PE**	**MP**	**Total**
33617	39.09	15.01	9.41	63.51

	FUD	Status	MUE	Modifiers				IOM Reference
33617	90	A	1(2)	51	N/A	62*	80	None

* with documentation

Terms To Know

anomaly. Irregularity in the structure or position of an organ or tissue.

atresia. Congenital closure or absence of a tubular organ or an opening to the body surface.

hypoplasia. Condition in which there is underdevelopment of an organ or tissue.

ligation. Tying off a blood vessel or duct with a suture or a soft, thin wire.

obstruction. Blockage that prevents normal function of the valve or structure.

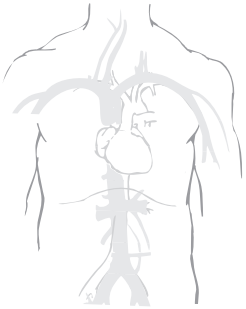
pericardium. Thin and slippery case in which the heart lies that is lined with fluid so that the heart is free to pulse and move as it beats.

suture. Numerous stitching techniques employed in wound closure.

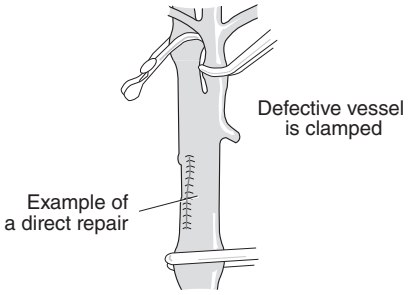
 N Newborn: 0 P Pediatric: 0-17 M Maternity: 9-64 A Adult: 15-124 ♂ Male Only ♀ Female Only

35211-35216

35211 Repair blood vessel, direct; intrathoracic, with bypass
35216 intrathoracic, without bypass



Procedures are within the thorax



Explanation

The abnormal blood vessel (arterial or venous) is exposed by choosing a thoracic incision appropriate to the involved vessel. In 35211, the physician places cardiopulmonary bypass catheters (through incisions in the low inferior vena cava, the superior vena cava, and high aorta or femoral artery). The heart is stopped by infusing cardioplegia solution into the coronary circulation. The abnormal vessel is examined and repaired by ligation (tying it off) or may be repaired by clamping it proximally and distally to the defect, and suturing the defect closed. The physician may repair the vessel by sewing in synthetic graft material or vein material harvested from the patient in order to enlarge the lumen of the repaired vessel (patch graft). Vessel patency is confirmed with a Doppler probe or angiography prior to taking the patient off cardiopulmonary bypass and closing the wound. The physician leaves chest and, possibly, mediastinal drains in place. Report 35216 when the procedure is performed without the use of cardiopulmonary bypass.

Coding Tips

Establishing both inflow and outflow by any method is included. That portion of the operative arteriogram performed by the surgeon is also included. Angioscopy performed during therapeutic intervention should be reported in addition to the code for the primary procedure; see 35400. Any graft harvest is not reported separately. For repair of a thoracic aortic aneurysm, see 33858–33875. For repair of an innominate, subclavian aneurysm by thoracic incision, see 35021–35022. For vein graft repair of an intrathoracic blood vessel, see 35241–35246; with graft other than vein, see 35271–35276. Do not report these codes with 33969, 33984, 33985, or 33986.

ICD-10-CM Diagnostic Codes

I77.1 Stricture of artery
I77.2 Rupture of artery
I80.8 Phlebitis and thrombophlebitis of other sites
I87.1 Compression of vein
S21.121A Laceration with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter
S21.141A Puncture wound with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter
S25.01XA Minor laceration of thoracic aorta, initial encounter
S25.02XA Major laceration of thoracic aorta, initial encounter
S25.111A Minor laceration of right innominate or subclavian artery, initial encounter ☑
S25.121A Major laceration of right innominate or subclavian artery, initial encounter ☑
S25.191A Other specified injury of right innominate or subclavian artery, initial encounter ☑
S25.21XA Minor laceration of superior vena cava, initial encounter
S25.22XA Major laceration of superior vena cava, initial encounter
S25.311A Minor laceration of right innominate or subclavian vein, initial encounter ☑
S25.321A Major laceration of right innominate or subclavian vein, initial encounter ☑
S25.391A Other specified injury of right innominate or subclavian vein, initial encounter ☑
S25.411A Minor laceration of right pulmonary blood vessels, initial encounter ☑
S25.421A Major laceration of right pulmonary blood vessels, initial encounter ☑
S25.491A Other specified injury of right pulmonary blood vessels, initial encounter ☑
S25.511A Laceration of intercostal blood vessels, right side, initial encounter ☑
S25.591A Other specified injury of intercostal blood vessels, right side, initial encounter ☑
S35.11XA Minor laceration of inferior vena cava, initial encounter
S35.12XA Major laceration of inferior vena cava, initial encounter

AMA: 35216 2018,Jun

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
35211	24.58	10.46	5.73	40.77
35216	36.61	16.93	8.29	61.83
Facility RVU	**Work**	**PE**	**MP**	**Total**
35211	24.58	10.46	5.73	40.77
35216	36.61	16.93	8.29	61.83

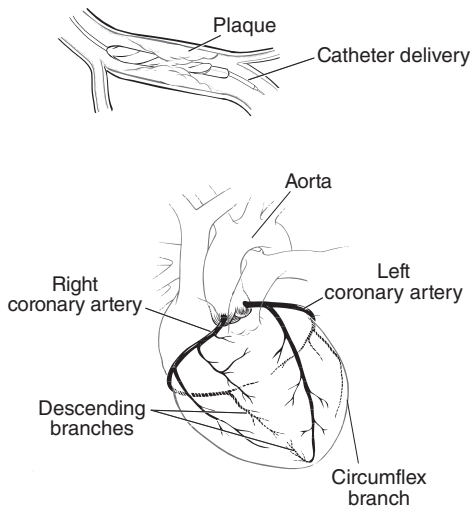
	FUD	Status	MUE	Modifiers				IOM Reference
35211	90	A	3(3)	51	50	62*	80	None
35216	90	A	2(3)	51	50	62*	80	

* with documentation

[92920, 92921]

92920 Percutaneous transluminal coronary angioplasty; single major coronary artery or branch

\+ **92921** Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)



Percutaneous angioplasty of one or more major coronary arteries

Explanation

The physician makes a small incision in the arm or leg to access the artery for placement of two catheters. A central venous catheter is inserted through the femoral or brachial artery and a second catheter with a balloon tip is threaded up to the heart and into an obstructed native coronary artery. The physician inflates the balloon at the tip of the second catheter to flatten plaque obstructing the artery against the walls of the coronary artery. If sufficient results are not obtained after the first inflation, the physician may reinflate the balloon for a longer period of time or at greater pressure. The catheters are removed. Pressure is placed over the incision for 20 to 30 minutes to stop bleeding. Report 92920 for each angioplasty performed on a single major coronary artery or branch. Report 92921 for each additional branch of the major coronary artery treated during percutaneous coronary intervention.

Coding Tips

When medically necessary, report moderate (conscious) sedation provided by the performing physician with 99151-99153. When provided by another physician, report 99155-99157. Report 92921 in addition to 92920, 92924, 92928, 92933, 92937, 92941, or 92943. Diagnostic coronary angiography performed at the time of the procedure may be reported in certain instances, such as when no prior catheter-based angiography study has been performed or a significant change in the patient's condition has occurred since the time of a prior study. Diagnostic coronary angiography services reported at the same surgical session as a percutaneous revascularization service may be reported separately. Only one base code from the percutaneous coronary intervention (PCI) codes should be reported for revascularization of a major coronary artery and its branches or revascularization of a bypass graft. The PCI base codes are 92920, 92924, 92928, 92933, 92937, 92941, and 92943, and the most intensive service for the target vessel should be selected. Services performed on additional branches should be reported using the add-on codes throughout the section. See CPT section guidelines for details on hierarchy and examples. Medicare and some other payers may require HCPCS Level II codes C9600–C9601 be reported for these services if drug eluting stents are used.

ICD-10-CM Diagnostic Codes

I20.0	Unstable angina
I20.81	Angina pectoris with coronary microvascular dysfunction
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I21.A1	Myocardial infarction type 2
I21.B	Myocardial infarction with coronary microvascular dysfunction
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I24.0	Acute coronary thrombosis not resulting in myocardial infarction
I24.1	Dressler's syndrome
I24.89	Other forms of acute ischemic heart disease
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris A
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm A
I25.112	Atherosclerotic heart disease of native coronary artery with refractory angina pectoris A
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris A
I25.2	Old myocardial infarction
I25.3	Aneurysm of heart
I25.41	Coronary artery aneurysm
I25.42	Coronary artery dissection
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris A
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm A
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris A
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris A
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm A

 N Newborn: 0 P Pediatric: 0-17 M Maternity: 9-64 A Adult: 15-124 ♂ Male Only ♀ Female Only

76978-76979

76978 Ultrasound, targeted dynamic microbubble sonographic contrast characterization (non-cardiac); initial lesion

\+ **76979** each additional lesion with separate injection (List separately in addition to code for primary procedure)

Explanation

Contrast-enhanced ultrasound (CEUS) imaging using microbubbles as an intravascular contrast agent has shown to be extremely effective in measuring blood flow in the heart and other organs; imaging blood perfusion in organs; describing and defining lesions, particularly focal liver lesions; and evaluating therapy responses. Microbubbles are approximately the same size as a red blood cell and are made up of a gas (e.g., perfluoro gas) enclosed with a phospholipid shell and have the ability to reflect ultrasound waves, enhance the reflections of the ultrasound waves, and create a unique image. There is a variety of microbubble contrast agents that vary based on the shell and gas core composition, as well as whether they are targeted or untargeted. Currently, all FDA-approved microbubbles are considered "untargeted," meaning they are used in clinics today; "targeted" microbubbles are in preclinical development. The microbubbles are administered using a small bolus or via continuous intravenous infusion into the circulation system and remain in the bloodstream for about five minutes. The technician directs the ultrasound waves to the area being evaluated; once the microbubbles pass into the ultrasound waves, the microbubbles produce a "fingerprint-like" harmonic reverberating sound within the ultrasound field vastly different from surrounding tissue that can be detected using microbubble-specific software. The system subsequently produces a contrast-enhanced real-time image. Microbubbles as a contrast agent are better tolerated over MR and CT agents, do not have as many side-effects and, when present, the side effects are typically less severe, and are not as toxic to the kidneys. Report 76978 for the initial lesion targeted and 76979 for each additional lesion with separate injection.

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
76978	1.62	5.96	0.1	7.68
76979	0.85	4.12	0.05	5.02
Facility RVU	**Work**	**PE**	**MP**	**Total**
76978	1.62	5.96	0.1	7.68
76979	0.85	4.12	0.05	5.02

76984

● **76984** Ultrasound, intraoperative thoracic aorta (eg, epiaortic), diagnostic

Explanation

Diagnostic epiaortic ultrasonography is used to evaluate the ascending aorta during a cardiac procedure. It is often performed when other diagnostic modalities such as transesophageal echocardiography (TEE) or visual or manual inspection are not adequate. Ultrasound is an imaging technique that produces bouncing sound waves far above the level of human perception through interior body structures. The sound waves pass through different densities of tissue and reflect back to a receiving unit, which converts the waves to electrical pulses that are immediately displayed in picture form on a screen. A diagnostic epiaortic ultrasound examination may include the aortic arch, sinotubular junction, innominate artery origin, and the proximal, mid, and distal segments of the ascending aorta.

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
76984				
Facility RVU	**Work**	**PE**	**MP**	**Total**
76984				

76987-76989

● **76987** Intraoperative epicardial cardiac ultrasound (ie, echocardiography) for congenital heart disease, diagnostic; including placement and manipulation of transducer, image acquisition, interpretation and report

● **76988** Intraoperative epicardial cardiac ultrasound (ie, echocardiography) for congenital heart disease, diagnostic; placement, manipulation of transducer, and image acquisition only

● **76989** Intraoperative epicardial cardiac ultrasound (ie, echocardiography) for congenital heart disease, diagnostic; interpretation and report only

Explanation

Diagnostic epicardial ultrasonography is used to evaluate cardiac structures for a patient with congenital heart disease. This type of cardiac ultrasound, or echocardiography, is often performed on pediatric or adult patients when a transesophageal echocardiography (TEE) is not feasible or is contraindicated. Ultrasound is an imaging technique that produces bouncing sound waves far above the level of human perception through interior body structures. The sound waves pass through different densities of tissue and reflect back to a receiving unit, which converts the waves to electrical pulses that are immediately displayed in picture form on a screen. An ultrasound probe is placed directly on the epicardial surface of the heart. The resulting two-dimensional image allows the provider to detect any residual or previously undetected cardiac defects in a patient with congenital heart disease. Report 76987 for placement and manipulation of the transducer, including obtaining images and interpretation and report; 76988 for placement and manipulation of the transducer and obtaining images only; and 76989 for interpretation and report only.

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
76987				
76988				
76989				
Facility RVU	**Work**	**PE**	**MP**	**Total**
76987				
76988				
76989				

77001

\+ **77001** Fluoroscopic guidance for central venous access device placement, replacement (catheter only or complete), or removal (includes fluoroscopic guidance for vascular access and catheter manipulation, any necessary contrast injections through access site or catheter with related venography radiologic supervision and interpretation, and radiographic documentation of final catheter position) (List separately in addition to code for primary procedure)

Explanation

This code reports the fluoroscopic guidance for placement, replacement, or removal of a central venous access device (CVAD) to be used in conjunction

 ● New ▲ Revised + Add On ★ Telemedicine [Resequenced]

Correct Coding Initiative Update 29.3

❖Indicates Mutually Exclusive Edit

0234T 01924-01926, 0213T, 0216T, 0596T-0597T, 11000-11006, 11042-11047, 34713-34716, 34812, 34820, 34833-34834, 35201-35206, 35226-35236, 35256-35266, 35286, 36000, 36002-36005, 36400-36410, 36420-36430, 36440, 36500, 36591-36592, 36600-36640, 37184, 43752, 49000-49002, 51701-51703, 61645-61650, 62320-62327, 64400, 64405-64408, 64415-64435, 64445-64454, 64461, 64463, 64479, 64483, 64486-64490, 64493, 64505, 64510-64530, 69990, 75893, 76000, 76942, 76998, 77002, 93000-93010, 93040-93042, 93050, 93318, 93355, 94002, 94200, 94680-94690, 95812-95816, 95819, 95822, 95829, 95955, 96360, 96365, 96372, 96374-96377, 96523, 97597-97598, 97602, 99155, 99156, 99157, 99446-99449, 99451-99452, G0471

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