ICD-10-CM Coding Workbook for Cardiology

Specialty coding guidance for ICD-10-CM

2016
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Case Study #1—Pulmonary Embolism

**Description**
A 22-year-old woman presented to the emergency department accompanied by a friend complaining of dyspnea, midline chest pain, and left sided rib pain of one week duration.

**Chief Complaint**
Shortness of breath, substernal chest pain, and rib pain of one week duration. She appeared anxious and in distress.

**History of Present Illness**
The patient was initially seen by her primary care physician for shortness of breath, chest pain, and rib pain one week ago. She was treated for an exacerbation of her preexisting asthma and was given nonsteroidal antiinflammatory medication for suspected costochondritis. She initially experienced mild improvement of her asthma symptoms with albuterol but the pain persisted and increased with activity, deep inspiration, and laying supine. She has a history of asthma, under good control until the last week when her symptoms began. Recent travel includes a graduation trip to Europe one month prior to developing symptoms. She denies any injuries.

**Review of Systems**
The patient denies cough, fever, chills, and abdominal symptoms. She denies leg pain, cramping, or swelling. Her chest pain is decreased when leaning forward.

**Past Medical History**
Asthma since childhood. No surgeries.

**Social History**
Denies tobacco, alcohol, or illicit drug use.

**Family History**
Father is alive and well, mother is deceased due to MVA five years ago. Patient is an only child.

**Medications**
Yasmin 1 tab po daily; albuterol inhaler PRN.

**Allergies**
No known drug allergies.

**Physical Examination**

General: Alert and oriented; moderate distress.

HEENT: Normal.
Neck: Supple; no lymphadenopathy; thyroid WNL.

Respiratory: Splinting and shallow breaths; decreased breath sounds in left lower lobe, otherwise clear to auscultation without wheezes, crackles, or rhonchi; no pleural friction rub; no cough.

Cardio: Regular rhythm; slightly tachycardic without murmur, rub, or gallop.

Abdomen: No CVA tenderness; no bruits; nontender; nondistended; active bowel sounds.

Musculoskeletal: Guarding of the left abdominal musculature and spasm of the left quadratus lumborum and intercostal muscles of ribs 8 to 12; anterior and posterior tenderness of the left lower rib cage.

Derm: No skin changes.

Extremities: Dorsal pedal and posterior tibial pulses 2+; lower extremities without edema, tenderness, or erythema; Homan’s negative; Thompson’s negative.

**Procedures**
Patient was started on supplemental oxygen and an IV of normal saline. Diagnostic tests were initiated. She was given a nebulizer treatment with Albuterol for her asthma.

**Diagnostic Laboratory Studies**
- CMP: Normal.
- CRP: 10.
- Sed Rate: 62.
- Hemoglobin/Hematocrit: Normal.
- WBC: 11.8.
- D-Dimer: 3.0.

**Other Diagnostic Studies**
- Chest X-ray: Blunting of the left costophrenic angle suggestive of minimal atelectasis or early infiltrate of the left lung base with small adjacent pleural effusion; no bony abnormalities.
- EKG: WNL.
- CT Angiography: Pulmonary emboli noted within the segmental and interlobar arteries to the left lower lobe. Consolidated change of the left lung base and the pleural effusions noted. The consolidation could be ischemic change from the pulmonary emboli or superimposed pneumonia.
- Bilateral Lower Extremity Ultrasound: Negative for deep vein thrombosis of lower extremities.

**Impression**
Pulmonary embolism probably secondary to oral contraceptives and recent long flight to Europe. History of asthma with acute exacerbation.

**Plan**
Admit patient for anticoagulation therapy.
Questions

1. **Assign the principal (first-listed) ICD-10-CM code for the above encounter.**
   a. I26.99 Other pulmonary embolism without acute cor pulmonale
   b. I26.99 Other pulmonary embolism without acute cor pulmonale; J45.909 Unspecified asthma, uncomplicated
   c. I26.09 Other pulmonary embolism with acute cor pulmonale; J45.41 Moderate persistent asthma with (acute) exacerbation
   d. J45.41 Moderate persistent asthma with (acute) exacerbation

2. **Assign the correct ICD-10-CM code for the patient’s secondary diagnosis.**
   a. J45.41 Moderate persistent asthma with (acute) exacerbation
   b. J45.998 Other asthma
   c. J45.22 Mild intermittent asthma with status asthmaticus
   d. J45.909 Unspecified asthma, uncomplicated

3. **Assign the correct ICD-10-CM code for the condition that caused the pulmonary embolism.**
   a. T38.5X1A Accidental poisoning with estrogen with progesterone, initial encounter
   b. Y92.813 Airplane as the place of occurrence of the external cause
   c. T38.5X5S Adverse effect of estrogen with progesterone, initial encounter
   d. No additional coding necessary

4. **Assign additional ICD-10-CM codes as warranted.**
   a. M94.0 Chondrocostal junction syndrome [Tietze]
   b. R61 Generalized hyperhidrosis
   c. Z79.3 Long term (current) use of hormonal contraceptives
   d. R06.02 Shortness of breath
5. **The following is true of cor pulmonale.**

a. Cor pulmonale is right heart failure as the result of long-term high blood pressure in the pulmonary arteries and right ventricle

b. Cor pulmonale may be caused by chronic pulmonary embolism

c. Cor pulmonale means pulmonary heart disease

d. All of the above
Answers and Rationales

Case Study #1—Pulmonary Embolism

1. Assign the principal (first-listed) ICD-10-CM code for the above encounter.
   a. I26.99 Other pulmonary embolism without acute cor pulmonale
   b. I26.99 Other pulmonary embolism without acute cor pulmonale; J45.909 Unspecified asthma, uncomplicated
   c. I26.09 Other pulmonary embolism with acute cor pulmonale; J45.41 Moderate persistent asthma with (acute) exacerbation
   d. J45.41 Moderate persistent asthma with (acute) exacerbation

   The correct choice is I26.99 Other pulmonary embolism without acute cor pulmonale. Medical documentation states that the patient has a pulmonary embolism, but there is no mention of cor pulmonale. In this scenario, there is only one principle diagnosis code that applies.

2. Assign the correct ICD-10-CM code for the patient’s secondary diagnosis.
   a. J45.41 Moderate persistent asthma with (acute) exacerbation
   b. J45.998 Other asthma
   c. J45.22 Mild intermittent asthma with status asthmaticus
   d. J45.909 Unspecified asthma, uncomplicated

   In ICD-9-CM, most asthma codes are classified as “extrinsic” or “intrinsic,” but in ICD-10-CM, these classifications no longer exist except as inclusion terms under category J45 Asthma. ICD-10-CM classifies asthma based on the level of severity, such as “mild intermittent,” “mild persistent,” “moderate persistent,” and “severe persistent.” In the scenario above, the severity of the patient’s disease is not documented, and in the absence of that information, J45.909 Unspecified asthma, uncomplicated, is appropriate. The patient is not noted to have status asthmaticus, so code choices that include this complication would not be selected.

3. Assign the correct ICD-10-CM code for the condition that caused the pulmonary embolism.
   a. T38.5X1A Accidental poisoning with estrogen with progesterone, initial encounter
   b. Y92.813 Airplane as the place of occurrence of the external cause
   c. T38.5X5S Adverse effect of estrogen with progesterone, initial encounter
   d. None

   It is well known that oral contraceptives and air travel can increase a patient’s risk of pulmonary embolism. Although these factors are suspect as the underlying cause of her condition, documentation does not include the specific etiology of the condition and, therefore, no additional codes should be reported.
4. **Assign additional ICD-10-CM codes as warranted.**
   
a. M94.0 Chondrocostal junction syndrome [Tietze]

b. R61 Generalized hyperhidrosis

c. **Z79.3 Long term (current) use of hormonal contraceptives**

d. R06.02 Shortness of breath

   Shortness of breath and diaphoresis are symptoms of pulmonary embolism and are not reported separately. Costochondritis, reported with M94.0, is not applicable as it was the diagnosis made during a previous encounter. The patient is on oral contraceptives, which would have a bearing on her care, and the history of her use of this medication should also be reported.

5. **The following is true of cor pulmonale.**

   a. Cor pulmonale is right heart failure as the result of long-term high blood pressure in the pulmonary arteries and right ventricle.

   b. Cor pulmonale may be caused by chronic pulmonary embolism.

   c. Cor pulmonale means pulmonary heart disease

   d. **All of the above**

   All of the above statements are true. Cor pulmonale may result from any disease of the respiratory system that also affects the heart. Circulatory system changes result in compensation by the right ventricle as it pumps blood into the lungs. This increased pressure can result in dilation of the right ventricle and right heart failure. It may result from lung conditions such as emphysema, chronic bronchitis, cystic fibrosis, and pulmonary embolism, as well as from neuromuscular diseases.