ICD-10-CM Coding Workbook for Cardiology

Specialty coding guidance for ICD-10-CM

2017

Contents

Case Study #6—Myocardial Infarction

Description

Patient presented with a chief complaint of chest pain admitted to the Coronary Care Unit due to acute inferior myocardial infarction.

Chief Complaint

Chest pain.

History of Present Illness

A 65-year-old white male presented with a chief complaint of "chest pain." The patient has a prior history of coronary artery disease. The patient presented today stating that his chest pain started yesterday evening and has been somewhat intermittent. The severity of the pain has progressively increased. He described the pain as a sharp and heavy pain that radiated to his neck and left arm. He ranked the pain at its worst a seven on a scale of one to 10. He admitted to some shortness of breath and diaphoresis. He stated that he has had nausea and three episodes of vomiting tonight. He denied any fever or chills. He admitted to prior episodes of similar pain prior to his PTCA in 1995. He stated the pain is somewhat worse with walking and seems to be relieved with rest. There is no change in pain with positioning. He stated that he took three nitroglycerin tablets sublingually over the past hour, which he stated has partially relieved his pain. The patient ranked his present pain at four on a scale of one to 10. The most recent episode of pain has lasted one hour. The patient denied any history of recent surgery, head trauma, recent stroke, or abnormal bleeding such as blood in urine or stool or nosebleed.

Review of Systems

All other systems reviewed and are negative.

Past Medical History

Diabetes mellitus Type II; coronary artery disease; angina pectoris; atrial fibrillation.

Social History

Denies alcohol or drugs. Smokes two packs of cigarettes per day. Works as a banker.

Family History

Positive for coronary artery disease (father and brother).

Medications

Aspirin 81 milligrams per day. Humulin N. insulin 50 units in a.m. Nitroglycerin 1/150 sublingually PRN chest pain.

Allergies

Penicillin.

Physical Examination

The patient is a 65-year-old white male.

General: The patient is moderately obese but he is otherwise well developed and well nourished. He appeared in moderate discomfort but there is no evidence of distress. He is alert, and oriented to person, place, and circumstance. There is no evidence of respiratory distress. The patient ambulates without gait abnormality or difficulty.

HEENT: Normocephalic/atraumatic head. Pupils are 2.5 mm, equal round, and react to light bilaterally. Extraocular muscles are intact bilaterally. External auditory canals are clear bilaterally. Tympanic membranes are clear and intact bilaterally.

Neck: No JVD. Neck is supple. There is free range of motion and no tenderness, thyromegaly, or lymphadenopathy noted.

Pharynx: Clear with no erythema, exudates, or tonsillar enlargement.

Chest: No chest wall tenderness to palpation.

Lungs: Clear to auscultation bilaterally.

Heart: Irregularly-irregular rate and rhythm. No murmurs, gallops, or rubs. Normal PMI.

Abdomen: Soft, nondistended. No tenderness noted. No CVAT.

Skin: Warm, diaphoretic, mucous membranes moist, normal turgor, no rash noted.

Extremities: No gross visible deformity. Free range of motion. No edema or cyanosis. No calf/thigh tenderness or swelling.

Course in Emergency Department

The patient's chest pain improved after the sublingual nitroglycerin and completely resolved with the nitroglycerin drip at 30 ug/minute. He tolerated the TPA well. He was transferred to the CCU in stable condition.

Procedures

10:40 p.m.: Dr. ABC (cardiologist) apprised. He agrees with TPA per 90-minute protocol and IV nitroglycerin drip. He is to come see patient in the emergency department.

10:45 p.m.: Risks and benefits of TPA discussed with patient and his family. They agree with administration of TPA and are willing to accept the risks.

10:50 p.m.: TPA started.

11:20 p.m.: Dr. ABC presents in emergency department assisting with patient care.

Diagnostic Studies

CBC: WBC 14.2, hematocrit 33.5, platelets 316.

Chem 7: Na 142, potassium 4.5, chloride 102, CO2 22.6, BUN 15, creatinine 1.2, glucose 186.

Serum Troponin I: 2.5.

Chest X-ray: Lung fields clear. No cardiomegaly or other acute findings.

EKG: Atrial fibrillation with ventricular rate of 65. Acute inferior ischemic changes noted (i.e., ST elevation III and aVF).

Cardiac Monitor: Sinus rhythm-atrial of fibrillation rate 60s to 70s.

Treatment

Heparin lock X 2.

Nasal cannula oxygen 3 liters/minute.

Aspirin five grains chew and swallow.

Nitroglycerin drip at 30 micrograms/minute.

Cardiac monitor.

TPA 90-minute protocol.

Heparin IV 5,000 unit bolus followed by 1,000 units/hour.

Impression

Acute inferior myocardial infarction.

Plan

Patient admitted to Coronary Care Unit under the care of Dr. ABC.

Case Study #6—Myocardial Infarction

1. Assign the correct ICD-10-CM codes for the above encounter.

a. I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall; I25.119 Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris; I48.91 Unspecified atrial fibrillation; E11.9 Type 2 diabetes mellitus without complications; Z79.4 Long term (current) use of insulin; Z72.0 Tobacco use

b. I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall; I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris

c. I21.4 Non-ST elevation (NSTEMI) myocardial infarction; I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris; I48.91 Unspecified atrial fibrillation; E11.9 Type 2 diabetes mellitus with unspecified complications; Z79.4 Long term (current) use of insulin; Z72.0 Tobacco use

d. I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall; Z72.0 Tobacco use

The information provided in the impression section of the progress note states the patient's diagnosis is acute inferior myocardial infarction. By delving into the note a bit further, the diagnostic studies section demonstrates ST elevation. In ICD-10-CM, this information is pertinent to myocardial infarction code selection. Look to the alphabetic index under main term "Infarction," and subterm "myocardial." A simple acute MI would be coded with I21.3, but in this instance more detail is available. Coding to the highest level of specificity is always required. The next subterm under myocardial would be "ST elevation" and then "inferior." This directs the coder to I21.19. By visiting the tabular listing, code I21.19 is verified as ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall, the appropriate code to describe the patient's condition.

It is also mentioned in the social history that the patient is a tobacco user, smoking two packs of cigarettes per day. In the instructions associated with category I21, there is information instructing the coder to apply additional codes in several instances regarding exposure to, use of, or dependence upon tobacco. There is no specific mention of dependence in this scenario, though there is indication of use. For tobacco use, the instructions state to use code Z72.0 Tobacco use.

The patient's medical history and list of medications also demonstrates that this patient has a history of insulin dependent Type II diabetes mellitus, coronary artery disease, angina pectoris, and atrial fibrillation. Since all of these conditions can impact the patient's current episode of care, it is necessary to report them as well in accordance with the general rules for other (additional) diagnoses. This is explained at the beginning of the ICD-10-CM guidelines Section III, Reporting Additional Diagnoses, which contains guidelines put forth by the Uniform Hospital Discharge Data Set (UHDDS). These guidelines define additional and other diagnoses as "all conditions that coexist at the time of admission, that develop subsequently, or that affect the treatment received and/or the length of stay. Diagnoses which relate to an earlier episode which have no bearing on the current hospital stay are to be excluded." These conditions affect the care provided to the patient requiring assessment, treatment, diagnostic procedures, extended inpatient hospital length of stay, or increased monitoring and nursing care.

2. In ICD-10-CM, which term is *not* considered important to myocardial infarction code selection?

a. acute

b. inferior

c. TPA treatment

d. ST elevation

In ICD-9-CM, myocardial infarction was coded based on site of the infarct and then episode of care. In ICD-10-CM, there is a bit more information to consider before assigning codes. ST elevation is an important element in coding for myocardial infarction, as is the site of the infarct. Acute versus subsequent episode of care is also an important element of coding for ICD-10-CM. However, types of treatment provided, such as TPA, do not factor into code selection.

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3. Coding guidelines for myocardial infarction are very specific regarding the length of time an MI is considered in its acute phase. If this patient were to be discharged and then readmitted three weeks and four days after the initial MI, how would it be coded?

a. Using acute MI codes

b. Using aftercare codes

c. Using history codes

d. a and c

In ICD-9-CM coding, the acute phase of a myocardial infarction was eight weeks or less. ICD-10-CM has a different set of rules as stated in the ICD-10-CM official guideline Section I.C.9.e.1. Encounters within the first four weeks of the MI, as long as the patient is still receiving care and treatment related to the condition, are reported as acute. After that four week timeframe, an appropriate aftercare code should be chosen. If a patient suffers a subsequent acute MI during that initial four week timeframe, the subsequent acute myocardial infarction codes from category I22 should be reported.

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4. The patient visits his physician for a follow-up visit three years after this incident. The patient doesn't require future care for the MI, but is simply being followed due to his previous myocardial infarction. Based on the ICD-10-CM coding guidelines, what is the appropriate code for this service?

a. I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall

b. I25.2 Old myocardial infarction

c. I22.1 Subsequent ST elevation (STEMI) myocardial infarction of inferior wall

d. I23.8 Other current complications following acute myocardial infarction

Based on the information provided in the ICD-10-CM coding guidelines, section I.C.9.e.1, when a patient returns for a visit for an old or healed myocardial infarction that doesn't require further care, the appropriate code to be assigned is I25.2 Old myocardial infarction. This can be found in the index as well, under the main term "Infarction" and subterms "myocardial" and "healed or old."

5. Which area of this progress note is most important in determining the key terms for ICD-10-CM diagnosis coding?

a. Plan

b. Procedures

c. Impression

d. Treatment

When examining a progress note for information about a diagnosis, several areas need to be examined. In this case, the bulk of the information is coming from a single spot, the impression section. The plan, procedures, and treatment sections do not provide much insight into the condition for which this patient is being treated. The diagnostic studies section does provide a bit more detail for more accurate coding, but is not an option on the above list. The section that provides the most detail for the coder in this progress note is the impression section, although it is important to always review the entire note to glean as much information as possible about the patient's condition.