Advanced ICD-10-CM Code Set Training

2015

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Contents

Commonly Coded Conditions

In this section, diagnoses commonly coded in healthcare will be reviewed, along with how to properly code them in ICD-10-CM. The conditions will be broken down by organ system.

Advanced Coding for Circulatory System Conditions

In ICD-10-CM, codes for diseases of the circulatory system are located in chapter 9. Hypertension, congestive heart failure, and coronary artery disease will be covered.

Hypertension

According to the Centers for Disease Control (CDC), hypertension affects one in three adults in the United States, approximately 68 million people. It contributes to one out of every seven deaths in the United States and to nearly half of all cardiovascular disease–related deaths, including stroke.

From a coding perspective, hypertension is another area where combination codes come in to play. Unlike diabetes, the codes are similar in nature to the way we coded hypertension in ICD-9-CM. The basic code for hypertension (without complications) is actually easier in ICD-10-CM. There is no longer the "benign" or "malignant" issue – there is just essential hypertension, indicated by code I10.

If there is a body system affected, then we have combination codes that kick in. The code set addresses hypertensive heart disease with category I11, hypertensive chronic kidney disease with category I12, and hypertensive heart and chronic kidney disease with category I13.

Hypertensive heart disease is the number one cause of death associated with high blood pressure. It refers to a group of disorders that includes heart failure, ischemic heart disease, hypertensive heart disease, and left ventricular hypertrophy. If the patient has hypertensive heart disease, the physician must make the connection with the conditions in order for the combination code to be assigned. Documentation must state (heart failure due to hypertension) or imply (hypertensive heart failure) a causal relationship in order to assign a code from category I11, *Hypertensive heart disease*, according to the guidelines (I.C.9.a.1).

With hypertensive chronic kidney disease, though, the guidelines state that there is a presumption that a cause-and-effect relationship exists between the two conditions (I.C.9.a.2).

If a patient has all three conditions present, hypertension, heart disease, and chronic kidney disease, the guidelines state that the connection must still be made for the heart disease and hypertension, but not for the CKD and hypertension (I.C.9.a.3).

EXAMPLE 1

Assessment: 1. Hypertension 2. Chronic diastolic congestive heart failure.

I10 Essential (primary) hypertension

I50.32 Chronic diastolic (congestive) heart failure

Since there is no causal relationship indicated, the two conditions would have to be coded separately.

EXAMPLE 2

Assessment: Hypertension with hypertensive chronic diastolic congestive heart failure

I11.0 Hypertensive heart disease with heart failure

I50.32 Chronic diastolic (congestive) heart failure

The causal relationship is indicated, so the first-listed code is now different. The instructional note under code I11.0 states that the second code is still necessary to identify the type of heart failure.

EXAMPLE

The patient is a 68-year-old gentleman with hypertension and stage III CKD with a creatinine of 1.8.

I12.9 Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease

N18.3 Chronic kidney disease, stage 3 (moderate)

According to the guidelines (I.C.9.a.2), the appropriate code from category N18 should be used as a secondary code with a code from category I12 to identify the stage of chronic kidney disease.

EXAMPLE

Patient presents with hypertensive heart disease and stage 2 CKD.

I13.10 Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease

N18.2 Chronic kidney disease, stage2 (mild)

Congestive Heart Failure

With congestive heart failure, the heart isn't able to pump enough blood to meet the needs of the body. This may happen when the heart muscle itself is weaker than normal or when there is a defect in the heart that prevents blood from getting out into the circulation. When the heart doesn't circulate blood normally, the kidneys receive less blood, which in turn, causes them to filter less fluid out of the circulation into the urine. The extra fluid in the circulation builds up in the lungs, the liver, around the eyes, and sometimes in the legs. This is called fluid "congestion," thus the name of the condition—congestive heart failure.

Category I50 in ICD-10-CM contains the codes for heart failure. The subcategories indicate the type:

- I50.1 Left ventricular
- I50.2- Systolic
- I50.3- Diastolic
- I50.4- Combined systolic and diastolic

The codes are further broken down by time parameters acute, chronic, and acute on chronic. There is also an instructional note under I50 that states that the following conditions should be coded first, if applicable:

- heart failure complicating abortion or ectopic or molar pregnancy (O00-O07, O08.8)
- heart failure following surgery (I97.13-)
- heart failure due to hypertension (I11.0)
- heart failure due to hypertension with chronic kidney disease (I13.-)
- obstetric surgery and procedures (O75.4)
- rheumatic heart failure (I09.81)

EXAMPLE

Sheila comes in today for a check-up of her chronic diastolic heart failure. She reports feeling better on Vasotec. She is less fatigued and is sleeping better. Patient to return in 3 months. Will get echo before next visit.

I50.32 Chronic diastolic (congestive) heart failure

EXAMPLE

Subjective: The patient is a 78-year-old female who returns for recheck. She has acute on chronic systolic heart failure due to hypertension. Today, she denies difficulty with chest pain, palpations, orthopnea, nocturnal dyspnea, or edema.

Medications: Atenolol 50 mg daily, Premarin 0.625 mg daily, calcium with vitamin D two to three pills daily, multivitamin daily, aspirin as needed, and TriViFlor 25 mg two pills daily. She also has Elocon cream 0.1 percent and Synalar cream 0.01 percent that she uses as needed for rash.

Family History/Personal History: Mother died from congestive heart failure. Father died from myocardial infarction at the age of 56. Family history is positive for ischemic cardiac disease. She has one brother living who has had angioplasties x 2.

Personal History: Negative for use of alcohol or tobacco.

Physical Examination: Vital Signs: Weight: 227.2 pounds. Blood pressure: 144/72. Pulse: 80. Temperature: 97.5 degrees.
General Appearance: She is an elderly female patient who is not in acute distress.

Mouth: Posterior pharynx is clear.
Neck: Without adenopathy or thyromegaly.
Chest: Lungs are resonant to percussion. Auscultation reveals normal breath sounds.
Heart: Normal S1 and S2 without gallops or rubs.
Abdomen: Without masses or tenderness to palpation.
Extremities: Without edema.

Impression/Plan: Acute on chronic systolic heart failure due to hypertension. She is advised to continue with the same medication.

I11.0 Hypertensive heart disease with heart failure

I50.23 Acute on chronic systolic (congestive) heart failure

Z82.49 Family history of ischemic heart disease and other disease of the circulatory system

Coronary Artery Disease (CAD)

CAD occurs when plaque builds up inside the coronary arteries, which supply oxygen-rich blood to the heart muscle. Over time, the plaque can harden or even rupture, causing a reduction in the flow of blood, which can cause angina, myocardial infarction, heart failure, or arrhythmias. Coronary artery disease is the most common type of heart disease. It is the leading cause of death for both men and women in America.

The codes for CAD in ICD-10-CM are located in category I25, *Chronic ischemic heart disease*, and are broken down by type, affected area, type of graft (if applicable), whether angina is present, and type of angina (if present). The main subcategories are as follows:

- Atherosclerotic heart disease of **native coronary artery** (I25.1-): Code choices are, 1) without angina pectoris, 2) with unstable angina, 3) with angina pectoris with documented spasm, 4) with other forms of angina, and 5) with unspecified angina pectoris;
- Atherosclerosis of **coronary artery bypass graft(s), unspecified**, with angina pectoris) I25.70-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **autologous vein coronary artery bypass graft(s)** with angina pectoris (I25.71-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **autologous artery coronary artery bypass graft(s)** with angina pectoris (I25.72-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **nonautologous biological coronary artery bypass graft(s)** with angina pectoris (I25.73-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **native coronary artery of transplanted heart** with angina pectoris (I25.75-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **bypass graft of coronary artery of transplanted heart** with angina pectoris (I25.76-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris;
- Atherosclerosis of **other coronary artery bypass graft(s)** with angina pectoris (I25.79-): Code choices are, 1) with unstable angina, 2) with angina pectoris with documented spasm, 3) with other forms of angina, and 4) with unspecified angina pectoris; and
- Atherosclerosis of **other coronary vessels without angina pectoris** (I25.81-): Code choices are, 1) coronary artery bypass graft(s), 2) native coronary artery of transplanted heart, and 3) bypass graft of transplanted heart.

According to the guidelines (I.C.9.b), when using one of the combination codes that states angina is present, it is not necessary to use an additional code for angina pectoris. A causal relations can be assumed in a patient with both atherosclerosis and angina pectoris, unless the documentation indicates the angina is due to something other than the atherosclerosis.

EXAMPLE

Patient is seen with unstable angina and CAD. No other conditions are documented.

I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris

Since there is no other condition being treated, the assumption may be made that the unstable angina is due to the atherosclerosis.

There are also instructional notes in this section that need to be followed.

Under category I25, *Chronic ischemic heart disease*, there is an instructional note to use an additional code to identify:

- Chronic total occlusion of coronary artery (I25.82)
- Exposure to environmental tobacco smoke (Z77.22)
- History of tobacco use (Z87.891)
- Occupational exposure to environmental tobacco smoke (Z57.31)
- Tobacco dependence (F17.-)
- Tobacco use (Z72.0)

Under subcategories I25.1-, I25.7-, and I25.81-, there is an instructional note that states to use an additional code, if applicable, to identify:

- Coronary atherosclerosis due to calcified coronary lesion (I25.84)
- Coronary atherosclerosis due to lipid rich plaque (I25.83)

EXAMPLE

A patient with unstable angina presents for consultation when he is found to have three-vessel coronary artery disease.

I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina

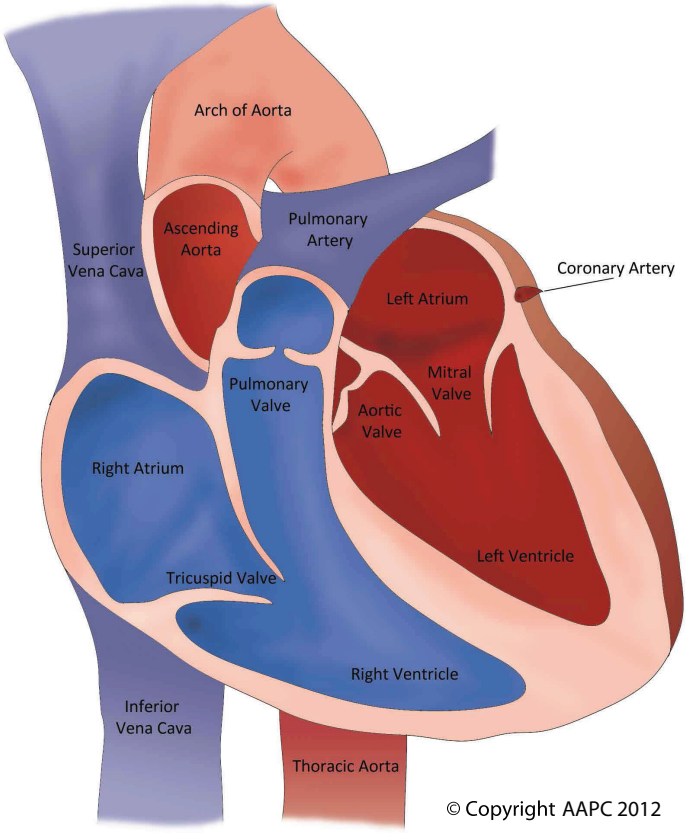
Note: The default for affected area is native coronary artery when there is no indication of prior coronary artery intervention.

Myocardial Infarction

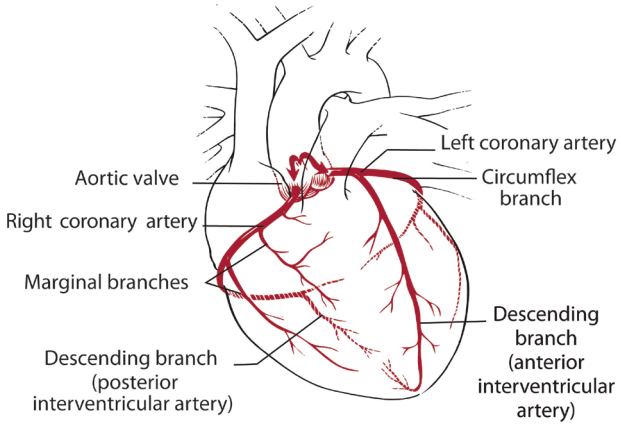
With each heartbeat, blood is sent throughout the body, carrying oxygen and nutrients to all of the cells. The heart beats over 100,000 times per day at an average rate of 80 times a minute, and sends 2,000 gallons of blood through the body. It keeps blood flowing through the 60,000 miles of blood vessels that feed the body's organs and tissues.

The heart has four chambers: the atria (two upper chambers) and the ventricles (two lower chambers). The heart is divided into right and left sides by a septum (a muscular wall). While in utero, there is normally an opening between the atria to allow blood to flow around the lungs. The right and left ventricles are also not separated. If the walls don't completely form by birth, the holes are considered septal defects. Ventricular septal defect is one of the most common congenital heart defects.

The heart also has four valves: *tricuspid, mitral, pulmonary, and aortic*. These valves are fibrous cusps that help the flow of blood throughout the heart by opening to permit blood flow and closing to prevent backflow of blood. The chordae tendineae are tendons made up mostly of collagen that link the papillary muscles to the tricuspid valve in the right ventricle and the mitral valve in the left ventricle. As the papillary muscles contract and relax, the chordae tendineae transmit the resulting increase and decrease in tension to the respective valves, causing them to open and close.



The coronary arteries are a network of arteries that supply blood to different parts of the heart muscle and electrical system. The left main coronary artery and the right coronary artery arise from the aorta. The left main coronary artery bifurcates into the left circumflex and left anterior descending arteries. The right marginal artery of the heart is a branch of the right coronary artery. It branches off at the inferior border of the heart and passes to the left towards the apex. It passes horizontally, branching and tapering along its route. It supplies the right ventricle. **Coronary artery disease** (CAD) is the result of the accumulation of atheromatous plaque within the walls of the coronary arteries. If the blood flow is blocked long enough, a portion of the heart muscle is damaged or dies. This condition is a myocardial infarction (MI), or heart attack.



Acute Myocardial Infarction (AMI)

More than a million people each year in the United States suffer MIs. The site of the MI will reflect the coronary artery experiencing the ischemia. For example, an MI of the anterior wall is caused by ischemia in the left anterior descending coronary artery.

The heart consists of three tissue layers: endocardium, myocardium, and pericardium. The endocardium, the innermost layer, lines the hearts chambers and is bathed in blood. The myocardium is the thick middle layer of the heart. Its cells are unique in that they physically resemble skeletal muscle but have electrical properties similar to smooth muscle. These cells also contain specialized structures that help to rapidly conduct electrical impulses from one muscle cell to another, enabling the heart to contract.

The pericardium is a protective sac surrounding the heart, which consists of two parts: the inner serous pericardium and the outer fibrous pericardium. MIs are initially classified into two categories depending on the depth of necrosis of the tissue layers.

A STEMI myocardial infarction occurs when there is a transmural infarction of the myocardium—which means that the entire thickness of the myocardium (endocardium, myocardium, and pericardium) has undergone necrosis. This results in ST elevation on an ECG. An NSTEMI myocardial infarction occurs when there is a partial dynamic block to coronary arteries. There will be no ST elevation or Q waves on ECG, as transmural infarction is not seen.

Coding of myocardial infarctions is different in ICD-10-CM than in ICD-9-CM. In ICD-9-CM, MIs are coded as acute and chronic, utilizing an 8-week rule as a guide. In ICD-10-CM, MIs are coded as initial and subsequent, utilizing a 4-week rule. The terms initial and subsequent are used in relation to MIs in ICD-10-CM, but not in the same way. In ICD-9-CM, initial and subsequent are used to indicate the episode of care. This concept is not part of the code categories in ICD-10-CM. In ICD-10-CM, the terms initial and subsequent are used to indicate the timing of the acute MIs in relation to each other.

In ICD-10-CM, myocardial infarctions are broken down by type (STEMI or NSTEMI), site, and time parameter (initial, subsequent, or old).

There are two categories for myocardial infarction in ICD-10-CM. They are:

I21 ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction

I22 Subsequent ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction

The includes note under I21 states the category includes myocardial infarction specified as acute or with a stated duration of 4 weeks (28 days) or less from onset. This gives the indication for the new "4 week rule." Notice that it also clarifies the time frame as from onset, not discharge from the hospital, etc.

The includes note under I22 states the category includes acute myocardial infarction occurring within four weeks (28 days) of a previous acute myocardial infarction, regardless of site.

The codes are then broken down by type and specific site of necrosis. There are also inclusion terms for the sites under the codes to assist with correct code selection.

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**

STEMI involving diagonal coronary artery

I21.09 ST elevation (STEMI) myocardial infarction involving **other coronary artery of anterior wall**

Acute transmural MI of anterior wall

Anteroapical transmural (Q wave) infarction (acute)

Anterolateral transmural (Q wave) infarction (acute)

Anteroseptal transmural (Q wave) infarction (acute)

Transmural (Q wave) infarction (acute) (of) anterior (wall) NOS

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**

Acute transmural MI of inferior wall

Inferior transmural (Q wave) infarction (acute)

Transmural (Q wave) infarction (acute) (of) diaphragmatic wall

Transmural (Q wave) infarction (acute) (of) inferior (wall) NOS

I21.21 ST elevation (STEMI) myocardial infarction involving **left circumflex coronary artery**

I21.29 ST elevation (STEMI) myocardial infarction involving **other sites**

Acute transmural myocardial infarction of other sites

Apical-lateral transmural (Q wave) infarction (acute)

Basal-lateral transmural (Q wave) infarction (acute)

High lateral transmural (Q wave) infarction (acute)

Lateral (wall) NOS transmural (Q wave) infarction (acute)

Posterior (true) transmural (Q wave) infarction (acute)

Posterobasal transmural (Q wave) infarction (acute)

Posterolateral transmural (Q wave) infarction (acute)

Posteroseptal transmural (Q wave) infarction (acute)

Septal transmural (Q wave) infarction (acute) NOS

I21.3 ST elevation (STEMI) myocardial infarction of unspecified site

Acute transmural myocardial infarction of unspecified site

Myocardial infarction (acute) NOS

Transmural (Q wave) myocardial infarction NOS

I21.4 Non-ST elevation (NSTEMI) myocardial infarction

Acute subendocardial myocardial infarction

Non-Q wave myocardial infarction NOS

Nontransmural myocardial infarction NOS

EXAMPLE

Cardiology is called to the ED. A 59-year-old man has presented with a 90-minute history of severe crushing chest pain. His ECG shows 3 mm ST segment elevation, and he is diagnosed with an acute MI.

He is given loading doses of aspirin and clopidogrel. Forty-five minutes after admission, he undergoes successful primary percutaneous coronary intervention (PCI) with the insertion of a drug eluting stent into his critically narrowed left anterior descending coronary artery. By the time he is returned to the coronary care unit 30 minutes after the procedure, he is pain free and there is partial resolution of his ECG changes.

I21.02 ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery

Following are the subsequent MI codes:

I22.0 Subsequent ST elevation (STEMI) myocardial infarction of **anterior wall**

Subsequent acute transmural myocardial infarction of anterior wall

Subsequent transmural (Q wave) infarction (acute) (of) anterior (wall) NOS

Subsequent anteroapical transmural (Q wave) infarction (acute)

Subsequent anterolateral transmural (Q wave) infarction (acute)

Subsequent anteroseptal transmural (Q wave) infarction (acute)

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

Subsequent acute transmural myocardial infarction of inferior wall

Subsequent transmural (Q wave) infarction (acute) (of) diaphragmatic wall

Subsequent transmural (Q wave) infarction (acute) (of) inferior (wall) NOS

Subsequent inferolateral transmural (Q wave) infarction (acute)

Subsequent inferoposterior transmural (Q wave) infarction

I22.2 Subsequent non-ST elevation (NSTEMI) myocardial infarction

Subsequent acute subendocardial myocardial infarction

Subsequent non-Q wave myocardial infarction NOS

Subsequent nontransmural myocardial infarction NOS

I22.8 Subsequent ST elevation (STEMI) myocardial infarction of **other sites**

Subsequent acute transmural myocardial infarction of other sites

Subsequent apical-lateral transmural (Q wave) myocardial infarction (acute)

Subsequent basal-lateral transmural (Q wave) myocardial infarction (acute)

Subsequent high lateral transmural (Q wave) myocardial infarction (acute)

Subsequent transmural (Q wave) myocardial infarction (acute) (of) lateral (wall) NOS

Subsequent posterior (true) transmural (Q wave) myocardial infarction (acute)

Subsequent posterobasal transmural (Q wave) myocardial infarction (acute)

Subsequent posterolateral transmural (Q wave) myocardial infarction (acute)

Subsequent posterosepatal transmural (Q wave) myocardial infarction (acute)

Subsequent septal NOS transmural (Q wave) myocardial infarction (acute)

I22.9 Subsequent ST elevation (STEMI) myocardial infarction of unspecified site

Subsequent acute myocardial infarction of unspecified site

Subsequent myocardial infarction (acute) NOS

When a code from category I22 is assigned, there should also be a code from category I21 assigned to designate the initial myocardial infarction site.

EXAMPLE

Martha was admitted to the hospital after suffering an acute STEMI of the left circumflex. Two days after admission, she suffered a second anteroapical STEMI. Cardiology is called back to the hospital to see her for the new MI.

I22.0 Subsequent ST elevation (STEMI) myocardial infarction of anterior wall

I21.21 ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery

Secondary Diagnosis Codes

There are instructional notes under the I21 and I22 categories for myocardial infarctions that state that additional codes should be used to identify:

- Exposure to environmental tobacco smoke (Z77.22)
- History of tobacco use (Z87.891)
- Occupational exposure to environmental tobacco smoke (Z57.31)
- Tobacco dependence (F17.-)
- Tobacco use (Z72.0)

The provider should be informed of the specific terminology as it relates to smoking history to ensure that the proper codes are assigned for these conditions.

There is also another code included in the instructional note that indicates tPA administration. The code is Z92.82 *Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to a current facility.*

tPA stands for tissue plasminogen activator. It is a fast-acting enzyme that dissolves blood clots. It can be produced naturally by cells in the walls of blood vessels, or prepared through the use of genetic engineering. Tissue plasminogen activator is used in the coronary arteries during heart attacks and in the cranial arteries in certain types of strokes. Administering tPAs during the first few hours following the incident can minimize the damage to the heart muscle and can improve the patient's chances of survival.

Code Z92.82 is assigned as a secondary diagnosis code at the receiving facility when a patient is received in transfer into a facility and the documentation indicates that the patient was administered tPA within the last 24 hours prior to admission to the current facility. The instructional note under code Z92.82 states to code first the condition requiring tPA administration, such as acute cerebral infarction (I63.-) or acute myocardial infarction (I21-,

I22-). This code would be assigned even if the patient is still receiving the tPA at the time they are received into the current facility.

EXAMPLE

Patient presents to a rural hospital with chest pressure on and off, arm and shoulder pain, and rapid heartbeat for the past hour. He is diagnosed with acute MI of the left main coronary artery and is administered tPA. He is stabilized and transferred to another facility that has an advanced coronary unit within 2 hours.

Physician at First Hospital: I21.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery

Physician at Second Hospital: I21.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery

Z92.82 Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to a current facility

Current Complications Following STEMI or NSTEMI

Heart attack complications are often related to the damage done to your heart during a heart attack. These are located in category I23, *Certain current complications following ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction (within the 28 day period).*

The complications listed under category I23 are:

Hemopericardium (I23.0)—This occurs when blood replaces pericardial fluid after an MI. This may lead to cardiac tamponade, which is pressure on the heart that occurs when blood or fluid builds up in the space between the myocardium and the pericardium. As a result, the body does not get enough blood.

Atrial septal defect (I23.1)—An ASD allows blood to be shunted from the left side of the heart (oxygenated blood) to the right side of the heart (deoxygenated blood), overloading the muscles on the right side of the heart. This may cause right heart enlargement, heart failure, arrhythmias, stroke, and pulmonary hypertension, among other things.

Ventricular septal defect (I23.2)—Ventricular septal defect is a rare but serious complication of acute MI. VSD tend to occur 3 to 8 days after the initial AMI, but may also occur within the first 24 hours, or as late as 2 weeks post infarction. The defect allows oxygenated and deoxygenated blood to mix between the heart's lower chambers.

Rupture of cardiac wall without hemopericardium (I23.3)—Rarely, the heart muscle ruptures under the pressure of the heart's pumping action because the damaged heart muscle is weak. Rupture usually occurs 1 to 10 days after a heart attack and is more common among women.

Rupture of chordae tendineae (I23.4)—Tearing of the tissue between the heart valves and papillary muscles.

Rupture of papillary muscle (I23.5)—Tearing of the muscle that attaches to heart valves that direct blood flow through the heart.

Thrombosis of atrium, auricular appendage, and ventricle (I23.6)—Erratic blood flow and lack of blood flow in parts of the heart damaged by the MI can cause thrombus to form in the heart's chambers. Thrombus occurs in about 20 percent of people who have had an MI.

Postinfarction angina (I23.7)—Anginal pain that occurs after an MI. This indicates that remaining blood flow to the heart muscle is inadequate. About 20 to 30 percent of MI patients experience postinfarction angina. This condition indicates that the patient is at increased risk for reinfarction.

Other complications (I23.8)

EXAMPLE

Jack is seen for postinfarction angina. He suffered a non-Q wave MI 1 week ago. He is feeling better and his angina symptoms are decreasing.

I23.7 Postinfarction angina

I21.4 Non-ST elevation (NSTEMI) myocardial infarction

Old Myocardial Infarction Versus Aftercare

Another difference between ICD-9-CM and ICD-10-CM as it relates to myocardial infarction is the concept of old or chronic. In ICD-10-CM there is still a code for old myocardial infarction, I25.2. There is not, however, a code subcategory for chronic. The guidelines state that the acute code categories I21 and I22 may be reported for the 28 day duration as long as the patient requires continued care. If the patient requires continued care for the myocardial infarction after the 28 day period, then the aftercare codes must be used instead as ICD-10-CM does not contain codes for chronic myocardial infarction.

EXAMPLE

John suffered an acute MI of the right coronary artery 3 weeks ago. He is presenting for his 2 week hospital follow up.

I21.11 ST elevation (STEMI) myocardial infarction involving right coronary artery

EXAMPLE

Barbara suffered an acute MI of the LAD and underwent stent placement. She is presenting 6 weeks postinfarction. She is complaining of continued fatigue.

Z51.89 Encounter for other specified aftercare

Z48.812 Encounter for surgical aftercare following surgery on the circulatory system

EXAMPLE

Robert presents for a check-up. He suffered an MI of the left main coronary artery. He is asymptomatic and requires no continued care for the MI, but is being followed due to his history.

I25.2 Old myocardial infarction

Advanced Coding for Respiratory System Conditions

In ICD-10-CM, codes for diseases of the respiratory system are located in chapter 10. Asthma, COPD, and sinusitis will be covered.

Asthma

Asthma is a chronic lung disease that inflames and narrows the airways. People with asthma experience symptoms when the airways tighten, inflame, or fill with mucus. According to the American Lung Association, asthma is one of the most common chronic disorders in childhood, with an estimated 7.1 million children less than 18 years of age affected. It is the leading cause of absenteeism from school. Common asthma symptoms include:

- Coughing, especially at night
- Wheezing
- Shortness of breath
- Chest tightness, pain, or pressure

In ICD-10-CM, the code set is expanded. It is subcategorized by severity. The subcategories are:

- J45.2- Mild intermittent
- J45.3- Mild persistent
- J45.4- Moderate persistent
- J45.5- Severe persistent
- J45.9- Other and unspecified asthma

The subcategories are further broken down by complication:

- Uncomplicated
- With acute exacerbation
- With status asthmaticus

According to the guidelines (I.C.10.a.1) an acute exacerbation is a worsening or a decompensation of a chronic condition. An acute exacerbation is not equivalent to an infection superimposed on a chronic condition, though an exacerbation may be triggered by an infection.

With asthma, as with any condition that is located in chapter 10, *Diseases of the Respiratory System*, any exposure to tobacco should be separately reported.

EXAMPLE

A patient with moderate persistent asthma presents to the office with a parent. She uses her rescue inhaler daily and is awakened by her asthma symptoms a few nights per week. She experiences some limitations of play due to her asthma. She is awakened multiple times a week by her symptoms and uses her rescue inhaler daily. At this visit she is tachypneic, with acute shortness of breath with audible wheezing. Patient has been given her prescribed medications of Cromolyn Sodium and Ventolin at home with no relief of symptoms prior to

coming to the office. A physical exam revealed: HR 110, RR 40 with signs of accessory muscle use. Auscultation revealed decreased breath sounds with inspiratory and expiratory wheezing and patient was coughing up small amounts of white sputum. SaO_2 was 93 percent on room air. Two nebulizer treatments were given, with improvement of peak flows. Re-exam indicates clearing of breath sounds and much improved airflow. Symptoms resolved and patient was given prescription for inhaled steroids to be used with current home meds.

J45.41 Moderate persistent asthma with (acute) exacerbation

Chronic Obstructive Pulmonary Disease (COPD)

COPD (chronic obstructive pulmonary disease) is a group of lung diseases that cause obstruction of the airways which results in a decreased ability to move air in and out of the lungs. Symptoms include difficulty breathing, chronic cough, and wheezing. Diseases classified under the heading of COPD include emphysema, chronic bronchitis, and bronchiectasis. COPD is not completely reversible and usually worsens over time.

There are three codes for COPD:

- J44.0 Chronic obstructive pulmonary disease with acute lower respiratory infection
- J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation
- J44.9 Chronic obstructive pulmonary disease, unspecified

There are instructional notes under category J44. The first note states to code also the type of asthma, if applicable. The "code also" notation indicates that the order of the codes will be driven by the reason for the encounter. The other note instructs to use additional code for any smoking history, current tobacco use, or exposure to tobacco, and should be separately reported.

EXAMPLE

Dan is a 68-year-old who is being seen for exacerbation of his COPD. He has had the condition for several years. He had a 40 year history of cigarette smoking, but he quit 10 years ago. He is on home oxygen therapy, but comes today with dyspnea at rest with minimal exertion. The increased work of breathing is causing him to be fatigued.

J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation

Z99.81 Dependence on supplemental oxygen

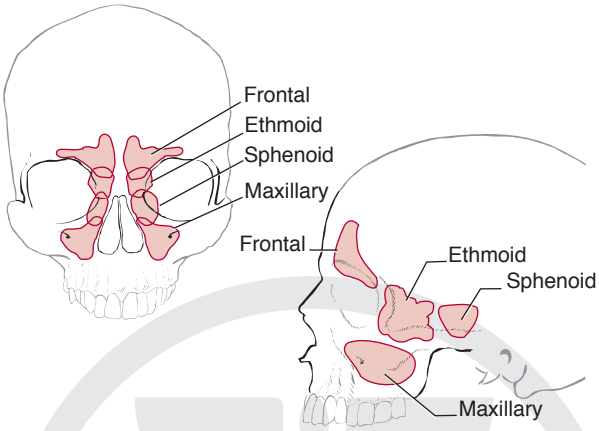
Z87.891 Personal history of nicotine dependence

Sinusitis

The paranasal sinuses are four sets of air-filled sacs located within the bones of the skull and face centered on the nasal cavity. They serve to lighten the weight of the head, humidify and heat inhaled air, and increase the resonance of speech.

The maxillary sinuses are the largest of the paranasal sinuses and lie behind the eyes in the maxillary bone. They are pyramid shaped, with the base along the nasal wall and roof in the floor of the orbit. The frontal sinuses are funnel shaped and located in the frontal bone, above the eyes in the forehead. The sphenoid sinuses originate in the sphenoid bone at the center of the skull, behind the ethmoid sinuses. They reach their full size by the late teenage years. The ethmoid sinuses are

pyramid shaped and located in the ethmoid bone. There are between six and 12 on each side of the nose and are separated by a thin septum.



Sinusitis is inflammation of the sinuses, occurring from an infection due to a virus, bacteria, or fungus. Most sinus infections are caused by a virus. Other causes are allergies, structural issues within the nasal cavity, pollutants, and a week immune system. It affects an estimated 35 million people, with close to 16 million office visits a year.

In ICD-10-CM, the codes for sinusitis are broken down by anatomical location, temporal parameter, whether the condition is recurrent, and contributing factors:

- Acute maxillary sinusitis, unspecified (J01.00)
- Acute maxillary recurrent sinusitis (J01.01)
- Acute frontal sinusitis, unspecified (J01.10)
- Acute frontal recurrent sinusitis (J01.11)
- Acute ethmoidal sinusitis, unspecified (J01.20)
- Acute ethmoidal recurrent sinusitis (J01.21)
- Acute sphenoidal sinusitis, unspecified (J01.30)
- Acute sphenoidal recurrent sinusitis (J01.31)
- Acute pansinusitis, unspecified (J01.40): Pansinusitis affects all paranasal sinuses on one or both sides
- Acute recurrent pansinusitis (J01.41)
- Other acute sinusitis (J01.80)
- Other acute recurrent sinusitis (J01.81)
- Chronic maxillary sinusitis (J32.0)
- Chronic frontal sinusitis (J32.1)
- Chronic ethmoidal sinusitis (J32.2)
- Chronic sphenoidal sinusitis (J32.3)
- Chronic pansinusitis (J32.4)
- Other chronic sinusitis (J32.8)

There are some important things to consider when coding sinusitis. First, if more than one sinus is affected but not all (pansinusitis), then the codes for other sinusitis are to be assigned according to whether it is acute, recurrent, or chronic. When the term *Sinusitis* with the subterms *acute or chronic, affecting more than one sinus other than pansinusitis*, is referenced in the Alphabetic Index, it sends the user to the *other sinusitis* codes. There are also instructional notes that must be taken into account with the sinusitis codes. Under category J01, Acute sinusitis, there is a note that states to use an additional code (B95-B97) to identify the infectious agent. Under category J32, Chronic sinusitis, it states to use an additional to identify current, history of, or exposure to, tobacco/tobacco smoke.

According to the AOA-HNS, vol 137, No 3S, in September of 2007, Acute is defined as less than 4 weeks, subacute 4–12 weeks and chronic more than 12 weeks, with or without acute exacerbation. When there are 4 or more acute episodes per year the condition is considered recurrent acute. This also aligns with the CDC that states, "acute bacterial sinusitis can last up to 4 weeks and subacute bacterial sinusitis can last 4 to 12 weeks, occurring less than 4 times a year and chronic sinusitis typically lasts more than 4 weeks and occurs more than 4 times per year." Educating providers on these definitions and the criteria for code assignment in ICD-10-CM will ensure appropriate, supported code application on claims.

EXAMPLE

Subjective: Janice is seen in the office for discomfort in the maxillary region. For the previous 4-5 years the patient had suffered from chronic sinus problems of a similar type. Symptoms included constant nasal congestion, coughing, and snoring. The patient is exposed to second-hand smoke from family members.

Objective: An initial exam showed edematous red nasal mucosa and colored nasal discharge. Allergy testing results were negative. A CT scan confirmed bilateral maxillary blockage and bilateral thickening of the mucus membrane.

Assessment: Chronic maxillary sinusitis, Secondary tobacco smoke exposure.

J32.0 Chronic maxillary sinusitis

Z77.22 Contact with and (suspected) exposure to environmental tobacco smoke (acute) (chronic)

EXAMPLE

Greg presents for a visit with facial pain. He said he had a cold last week with some nasal congestion and facial pain. His pain is primarily below the eyebrows. Upon examination, his frontal sinuses are tender to percussion and there is injection and erythema in the turbinates. He is diagnosed with acute frontal sinusitis.

J01.10 Acute frontal sinusitis, unspecified

EXAMPLE

Patients presents for consultation on his recurrent frontal and maxillary sinusitis. He was referred to the ENT's office after presenting to his pediatrician's office for the fifth time in a year with this problem.

J01.61 Other acute recurrent sinusitis

In ICD-9-CM, there is no way, other than sending medical records, to indicate the recurrent conditions to the payer. In ICD-10-CM, it will be possible to report these recurrent conditions without the sending of medical records to indicate it by assigning the appropriate ICD-10-CM code(s). Providers must be educated on these changes in order to capture the expanded possibilities in the new code set.

Advanced Coding for Gastrointestinal System Conditions

In ICD-10-CM, codes for diseases of the gastrointestinal system are located in chapter 11. GERD, constipation, hemorrhoids, and hernias will be covered here.

GERD

Gastroesophageal reflux disease (GERD) occurs when the stomach acid or bile flows back into the esophagus. The backwash of acid irritates the lining of the esophagus and causes GERD signs and symptoms such as: burning sensation in the chest, chest pain, difficulty swallowing, and regurgitation of food or sour liquid.

Most people can manage the symptoms with lifestyle changes and over-the-counter medications. Many people with GERD may need stronger medications or surgery to reduce symptoms.

GERD coding in ICD-10-CM is broken down by with or without esophagitis. ICD-10-CM Draft Official Conventions state that when "with" and "without" are the two options available the default is always "without" if there is no documentation to support "with."

In ICD-10-CM GERD is coded to:

K21.0 Gastro-esophageal reflux with esophagitis

K21.9 Gastro-esophageal reflux without esophagitis

Category K20 contains an instructional note that states: Use additional code to identify alcohol abuse and dependence (F10.-).

EXAMPLE

A patient presents to the clinic with GERD with esophagitis. She has been taking her PPI medication without complete relief. She does admit to continuing to smoke cigarettes, though (1 pack per day). Discussion with the patient regarding smoking's effect on the lower esophageal sphincter (LES) and the need to quit smoking.

K21.0 Gastro-esophageal reflux with esophagitis

F17.210 Nicotine dependence, cigarettes, uncomplicated

Constipation

Constipation occurs when bowel movements become difficult or less frequent. The normal length of time between bowel movements ranges widely from person to person. Some people have bowel movements three times a day; others, only one or two times a week. Going longer than three days without a bowel movement is too long. After three days, the stool or feces becomes harder and

more difficult to pass. Constipation is usually caused by a disorder of bowel function rather than a structural problem.

Constipation is coded to the subcategory of K59.0. Code choices include:

K59.00 Constipation unspecified

K59.01 Slow transit constipation

K59.02 Outlet dysfunction constipation

K59.09 Other constipation

Category K59 includes an Excludes1 note for:

Change in bowel habit NOS (R19.4)

Intestinal malabsorption (K90.-)

Psychogenic intestinal disorders (F45.8)

EXAMPLE

Patient presents with complaints of a change in bowel habits. She used to be very regular with three bowel movements daily. Now she states she only has bowel movements once a week. After testing, the physician determines she has dysmotility of the colon and after discussion with the patient they decide to have an antegrade colonic enema.

K59.01 Slow transit constipation

EXAMPLE

Patient presents for colonoscopy with the complaints of abnormal bowel movements. He states he normally has a bowel movement once a day but recently has been only going every other day. Some days he notes runny, loose stools. The physician found no evidence of disease on scope and diagnosed the patient with changing bowel habits.

R19.4 Change in bowel habit NOS

Hemorrhoids

Hemorrhoids are swollen blood vessels of the rectum. The hemorrhoidal veins are located in the lowest area of the rectum and anus. Sometimes they swell so that the vein walls become stretched, thin, and irritated with passing bowel movements. Hemorrhoids are classified into two general categories: internal and external and are coded to the category of K64.

External hemorrhoids lie within the anus and are usually painful. When an external hemorrhoid prolapses to the outside (usually in the course of passing stool), it can be seen and felt. Blood clots sometimes form within prolapsed external hemorrhoids, causing an extremely painful condition called a thrombosis. If an external hemorrhoid becomes thrombosed, it can look rather frightening, turning purple or blue, and could possibly bleed. Despite their appearance, thrombosed hemorrhoids are usually not serious but can be very painful. They will typically resolve themselves in a couple of weeks. If the pain is unbearable, a physician can remove the thrombosed hemorrhoid, which stops the pain.

External hemorrhoids are coded with K64.4 *Residual hemorrhoidal tags which includes external hemorrhoids not otherwise specified* and skin tags of the anus and K64.5 *Perianal venous thrombosis*.

Internal hemorrhoids lie far enough inside the rectum that they can't be seen or felt. They don't usually hurt because there are few pain-sensing nerves in the rectum. Bleeding may be the only sign that they are present. Sometimes internal hemorrhoids prolapse, or enlarge and protrude outside the anal sphincter. Prolapsed hemorrhoids may hurt because the anus is dense with pain-sensing nerves. They usually recede into the rectum on their own; if they don't, they can be gently pushed back into place.

Coding for internal hemorrhoids is dependent upon the degree/stage of the hemorrhoids.

With Stage I internal hemorrhoids, the hemorrhoids are still in the interior anal canal and protrusion or prolapse has not occurred. Itching may occur in this stage, and the internal hemorrhoids may actually be mistaken for anal fissures.

Source: AAPC

Stage II internal hemorrhoids are similar to Stage I internal hemorrhoids except with Stage II bleeding is also a common symptom. Additionally, prolapse, the condition where the internal hemorrhoids sag and protrude from the anal opening, also occurs, especially after a bowel movement. The tissue reverts back to its original position, however, without any intervention.

Source: AAPC

When internal hemorrhoids reach stage III, they have all of the symptoms of the earlier stages with one notable exception: the prolapsed internal hemorrhoids no longer return to their original position on their own. They must be manipulated back into the anal canal manually. This stage of internal hemorrhoids severity is very painful, and requires almost constant treatment for pain.

Finally, when internal hemorrhoids reach stage IV, all of the earlier symptoms of itching, burning, pain and prolapse are present. The difference in stage IV over all of the earlier stages is the hemorrhoids can no longer be manipulated back into place in the rectum. Because of this, strangulation is possible, whereby the sphincter muscle of the anus constricts on the protruding hemorrhoid causing pain and even thrombosis. When internal hemorrhoids reach this stage, a physician's intervention is required, and treatments like surgery or laser coagulation may be necessary.

Source: AAPC

Internal hemorrhoids are coded to the following:

K64.0 First degree hemorrhoids (Grade/Stage I)

K64.1 Second degree hemorrhoids (Grade/Stage II)

K64.2 Third degree hemorrhoids (Grade/Stage III)

K64.3 Fourth degree hemorrhoids (Grade/Stage IV)

K64.8 Other hemorrhoids

Code K64.8 is used when there is no mention of the degree of hemorrhoid for internal or for prolapsed hemorrhoids when no degree is specified in the documentation.

EXAMPLE

A 68-year-old male patient came to the office with complaints of prolapsing pile mass during defecation and bleeding while passing stool. The patient was diagnosed at 11 & 7 o'clock position II degree internal hemorrhoids, deeply situated, projecting one with bleeding tendency. Application of caustic alkaline paste intervention was done to internal hemorrhoids under local anesthesia. No complications were reported after the procedure.

K64.1 Second degree hemorrhoids

Hernia

A hernia occurs when the contents of a body cavity bulge out of the area where they are normally contained. These contents, usually portions of intestine or abdominal fatty tissue, are enclosed in the thin membrane that naturally lines the inside of the cavity. In ICD-10-CM, the code block that contains the hernia codes is K40-K46. There is an instructional note at the beginning of the code block that instructs the coder that if a hernia has both obstruction and gangrene, classify the hernia as having gangrene.

Category K40 is for inguinal hernias. This includes codes for direct inguinal, double inguinal, indirect, oblique inguinal, and scrotal hernias. To assign a code, the following needs to be documented: location, laterality, with or without obstruction, whether the hernia is recurrent and if there is obstruction.

Inguinal (groin) hernia: Making up 75 percent of all abdominal-wall hernias and occurring up to 25 times more often in men than women, these hernias are divided into two different types, direct and indirect. Both types occur in the groin area where the skin of the thigh joins the torso, but they have slightly different origins.

Indirect inguinal hernia: An indirect hernia follows the pathway that the testicles made during fetal development, descending from the abdomen into the scrotum. This pathway normally closes before birth but may remain a possible site for a hernia in later life. Sometimes the hernia sac may protrude into the scrotum. An indirect inguinal hernia may actually occur at any age.

Direct inguinal hernia: The direct inguinal hernia occurs slightly to the inside of the site of the indirect hernia, in an area where the abdominal wall is naturally slightly thinner. It rarely will protrude into the scrotum. Unlike the indirect hernia, which can occur at any age, the direct hernia tends to occur in the middle-aged and elderly because the abdominal walls weaken with age.

EXAMPLE

Jennifer has been diagnosed with a unilateral inguinal hernia with obstruction and gangrene that has been recurrent.

K40.41 Unilateral inguinal hernia, with gangrene, recurrent

Umbilical hernias are common hernias (10–30 percent), often noted at birth as a protrusion at the bellybutton. This is caused when an opening in the abdominal wall, which normally closes before birth, doesn't close completely. If small (less than half an inch), this type of hernia usually closes gradually by age 2. Larger hernias and those that do not close by themselves usually require surgery between the ages of 2–4 years. Even if the area is closed at birth, umbilical hernias can appear later in life because this spot may remain a weaker place in the abdominal wall. Umbilical hernias can appear later in life or in women who are pregnant or who have given birth. Umbilical hernias are coded from category K42 and require knowledge of obstruction or with or without gangrene for proper code assignment.

EXAMPLE

A 42-year-old female patient presents with a gangrenous Meckel's diverticulum in a strangulated umbilical hernia sac and was treated by dissection of diverticulomesenteric bands and diverticulectomy.

K42.1 Umbilical hernia with gangrene

Q43.0 Meckel's diverticulum

Ventral hernias are a type of abdominal hernia that commonly occurs along the midline of the abdominal wall, although they can occur at any location on the abdominal wall. Umbilical hernias are those that occur beneath or near the navel. Ventral hernias that occur at the site of a previous abdominal surgery are called incisional hernias, and incisional hernias are fairly common. Coding for ventral hernias remains consistent with the other categories.

EXAMPLE

Tina noticed a bulge in her abdominal wall. She indicates the bulge appears to expand under increased abdominal pressure, such as when she coughs or lifts a heavy object. The physician diagnosed her with ventral hernia.

K43.9 Ventral hernia without obstruction or gangrene

A diaphragmatic hernia occurs when there is an abnormal opening in the diaphragm, the muscle that helps a person to breathe. The opening allows part of the organs from the abdominal cavity (stomach, spleen, liver, and intestines) to go up into the chest cavity near the lungs. The defect may be congenital or acquired later in life. Acquired diaphragmatic hernias (ADH) may result from blunt or penetrating injuries, such as motor vehicle accidents, falls, stabbings, or gunshot wounds.

Diaphragmatic hernias are coded to category K44 if acquired and Q79.0 if stated as congenital.

EXAMPLE

A 17-year-old female presents with complaints of a congenital diaphragmatic hernia. She originally presented with vague abdominal pain and was thought to have urinary tract infection, ruptured ovarian cyst, and appendicitis by different medical teams in the first few days. Recently she underwent a diagnostic laparoscopy with no significant findings. In the early postoperative recovery period, she suffered from severe cardiorespiratory distress and a large intestinal left diaphragmatic hernia was diagnosed subsequently. Today during surgery a strangulated loop of large bowel herniating through a left antero-lateral congenital diaphragmatic hernia was discovered, which was reduced and repaired with a Prolene mesh through thoracotomy.

Q79.0 Congenital diaphragmatic hernia

Advanced Coding for Musculoskeletal System and Connective Tissue Conditions

In ICD-10-CM, codes for diseases of the musculoskeletal system and connective tissue are located in chapter 13. Fractures, osteoporosis, and arthritis/osteoarthritis will be covered here.

Coding of Traumatic Fractures

The type and number of fractures that can occur are wide and varied. The codes for fractures have greatly expanded in ICD-10-CM due to the specificity of site, inclusion of laterality, nature of the fracture (transverse, oblique, comminuted, segmental, etc), and 7th character extender additions. To accurately assign fracture codes the documentation should provide information about each of these specificities as well the following:

- Type of fracture—open or closed, including the Gustilo classification for open fractures
- Stage of healing—routine or delayed
- Complications—nonunion or malunion

In ICD-10-CM the traumatic fractures codes are located in Chapter 19, Injury, Poisoning and Certain Other Consequences of External Causes While the level of specificity and expansion of codes for traumatic fractures and other injuries in Chapter 19 make memorization of the codes very difficult, the format and structure of the codes found in chapter 19 both provide a logical approach that over time will become quite easy to use.

Whereas in ICD-9-CM the injury chapter was formatted by type of injury, in ICD-10-CM the injury chapter is arranged first anatomically. So instead of finding all the fracture codes listed together, fractures will be found within the appropriate anatomical location of the injury based on the documentation. Another consistency that can be found when coding for fractures will be in the code itself. Each character within a code identifies a unique component of the specificity found in that injury. Within most of chapter 19 the second character identifies the general anatomic site, the third character the general type of injury, the fourth and fifth character will further specify the anatomic site or type of injury and the sixth character indicates the laterality of the injury.

Compare the following two sets of codes for general anatomic site and injury (second and third character).

EXAMPLE

S42.151A Displaced fracture of neck of scapula, right shoulder, initial encounter closed fracture

S43.151A Posterior dislocation of right acromioclavicular joint, initial encounter

S72.25XA Nondisplaced subtrochanteric fracture of right femur, initial encounter closed fracture

S73.121A Ischiocapsular (ligament) sprain of right hip, initial encounter closed fracture

What the ICD-10-CM user will find, and the examples show, all injuries to the shoulder and upper arm, regardless of the type of injury, will have the second character of 4 while all injuries to the hip and thigh will have the second character of 7. The user will also find, as the examples show, the third character in all fractures, except physeal, are identified by a 2 and all dislocations and sprains of joint and ligaments are identified by a 3.

The principles of multiple coding of injuries should be followed in coding fractures. Fractures of specified sites are coded individually by site in accordance with both the provisions within categories S02, S12, S22, S32, S42, S52, S62, S72, S82, S92, and the level of detail furnished by medical record content.

A fracture not indicated as open or closed should be coded to closed. In ICD-10-CM a fracture not indicated whether displaced or non-displaced should be coded to displaced.

In ICD-10-CM the fracture code narratives will have both site and laterality designations. Therefore, it is important to understand the terminology used in regards to bones and types of fractures for proper code assignment. Coding of fractures can be complex without the proper anatomy knowledge.

Common terminology:

- Long bones—bones that are longer than they are wide and have a growth plate. Examples include the femur and phalanges.
- Short bones—approximately as wide as they are long and have a primary function of providing support and stability with little movement. Examples include carpals and tarsals.
- Flat bones—strong, flat plates of bone with the main function of providing protection to the bodies' vital organs and being a base for muscular attachment. Examples include the scapula and cranium.
- Irregular bones—bones which do not fall into any other category, due to their nonuniform shape. Examples include the vertebrae and sacrum.
- Sesamoid bones—usually short or irregular bones, imbedded in a tendon. Examples include the patella and pisiform (smallest of the Carpals).
- Diaphysis—shaft of a long bone
- Epiphysis—end of the shaft of a long bone
- Metaphysis—growth plate region
- Condyle—rounded projection on the end of a bone usually at the point of articulation
- Intercondylar—located between two condyles
- Lateral epicondyle—rounded projection of the bone prior to the condyle which serves as a place of attachment of ligaments. The lateral epicondyle is on the lateral side of the bone.

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- Medial epicondyle—rounded projection of the bone posterior to the condyle which serves as a place of attachment of ligaments. The medial epicondyle is on the medial side of the bone.
- Malunion—faulty union of the fragments of a fractured bone
- Nonunion—failure of the ends of a fractured bone to unite

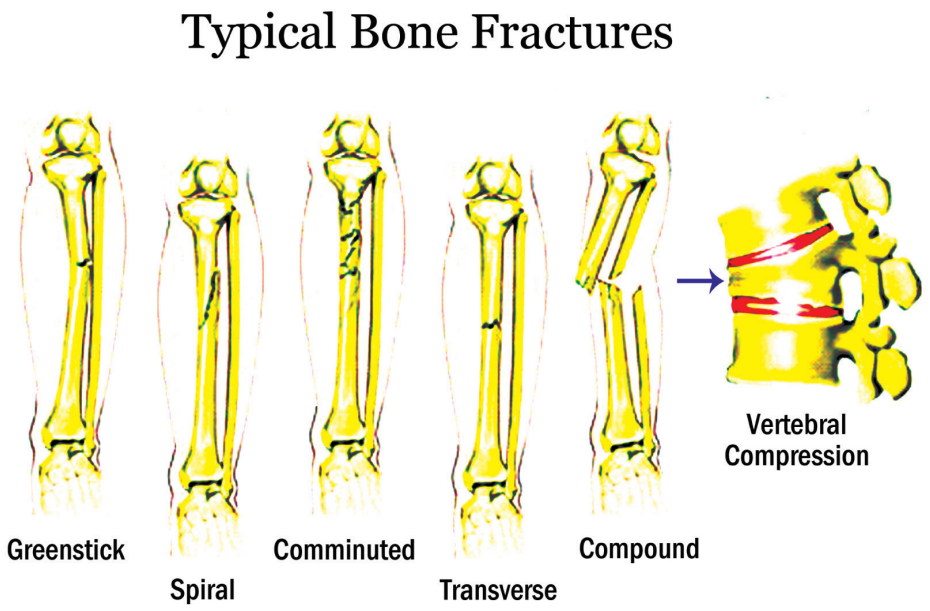
EXAMPLE

Bobby injured his arm during a fall from a tree. After an examination and review of films he is diagnosed with an extraarticular fracture of the left distal radius.

S52.552A Other extraarticular fracture of the lower end of left radius, initial encounter closed fracture

W14.XXXA Fall from tree, initial encounter

Below is a diagram of typical fractures.



Source: AAPC

A Greenstick fracture is an incomplete fracture in which the bone is fractured on one side and bent on the other. This type occurs most often in children. Greenstick fractures can take a long time to heal (about 6 weeks) because they tend to occur in the middle, slower growing parts of bone.

A bent bone fracture is a fracture where the bone is bent, creating multiple tiny fractures along the bone. This type of fracture is difficult to diagnosis as the fractures do not show up on X-rays. Bent bone fractures are also known as plastic deformations and most commonly occur in the forearm.

A spiral fracture is a bone fracture caused by a twisting force. It may also be called a torsion fracture. This is a common fracture suffered by people who snow ski.

A comminuted fracture is a fracture in which the bone fragments into several pieces. Comminuted fracture is associated with crush injuries. It is rather common in the elderly.

EXAMPLE

Charlotte was attempting to keep her 8-year-old grandson from running into the corner of a display case. She struck her right arm on the case which was subsequently struck by his head. She reports the pain was immediate and she was unable to flex her hand without pain. Imaging shows a fracture of the mid radius shaft with comminution of multiple bone fragments and splinters.

S52.351A Displaced comminuted fracture of shaft of radius, right arm, initial encounter closed fracture

W22.09XA Striking against other stationary object, initial encounter

W50.0XXA Accidental hit or strike by another person, initial encounter

A segmental fracture is a fracture in which the bone breaks into two or more large pieces at the fracture site. This type of fracture frequently causes soft tissue injury and is usually the result of high-energy trauma, such as car accidents.

EXAMPLE

Patient is seen in ED after being involved in a traffic accident with several other vehicles. Imaging shows a three part displaced segmental fracture of the right femoral shaft. Patient is brought to the OR for ORIF of the femoral fracture.

S72.361A Displaced segmental fracture of the shaft of the right femur, initial encounter closed fracture

V89.2XXA Person injured in unspecified motor-vehicle accident, traffic, initial encounter

A transverse fracture is a fracture at a right angle to the bone's axis. Most times, transverse fractures occur from some sort of direct blow or heavy repetitive action like running. Transverse fractures often occur in high impact sports and car accidents.

A compound fracture is a fracture in which broken bone fragments lacerate soft tissue and protrude through an open wound in the skin.

A vertebral compression fracture is a fracture that occurs when the bones of the spine become broken due to trauma. Usually the trauma necessary to break the bones of the spine is quite large.

A Monteggia's fracture is a fracture of the proximal third of the ulna with an associated dislocation of the head of the radius. This type of fracture is more common in young children and rarely seen in adults.

A Galeazzi's fracture is a fracture of the radius shaft with an associated subluxation or dislocation of the distal ulna. While closed reduction is possible for children with this type of fracture, adults usually require open treatment. Galeazzi's fractures are also known as a reverse Monteggia's fracture.

EXAMPLE

S52.371F Galeazzi's fracture of right radius, subsequent encounter for open fracture type IIIA, IIIB, or IIIC with routine healing

A torus fracture is a partial fracture where the bone is broken on one side and buckles outward on the other side. This type of fracture is common in children and is also known as a buckle fracture.

An oblique fracture is a fracture running diagonally along the axis of a bone. These types of fracture are the result of trauma that causes the bone to bend and twist resulting in the break.

A burst fracture is a fracture of the vertebra caused by a high-energy axial load. This type of fracture is traumatic and may be the result of auto accidents, falls from height, or high speed. Pieces of the fractured bone may be forced into the surrounding tissue including the spinal canal.

A Colles' fracture is a fracture of the distal end of radius within one inch of the joint. The proximal end of the radial fracture is displaced towards the inside (ventral) of the wrist. This type fracture typically occurs from landing on an outstretched arm, palm down, and is particularly common in patients with osteoporosis.

EXAMPLE

Patient suffered an extra-articular fracture of the right distal radius that occurred as the result of a fall onto an out stretched hand while the patient was running on the sidewalk and tripped over a displaced piece of concrete. X-ray showed a fracture of the distal radial metaphyseal region with dorsal angulation and impaction, but without involvement of the articular surface. The patient returns for a follow--up today and new X-rays indicate a malunion.

S52.531P Colles' fracture of right radius, subsequent encounter for closed fracture with malunion

W18.31XD Fall on same level due to stepping on an object

A Smith's fracture is a fracture of the distal end of the radius. The proximal end of the radial fracture is displaced towards the back (dorsal) of the wrist. This type of fracture is usually caused by landing on an outstretched arm but on the backside of the hand.

A Barton's fracture is an intra-articular fracture of the distal radius with an associated dislocation of the radiocarpal joint.

A bimalleolar fracture is a fracture of both the lateral malleolus and the medial malleolus of the ankle. This type of fracture usually requires open reduction and internal fixation to restore the ankle.

A trimalleolar fracture is a fracture of the lateral malleolous, medial malleolus, and the posterior malleolus. Ligament damage associated with the fracture may also be present.

A Maisonneuve's fracture is a fracture of the proximal fibula with an associated tear of the distal tibiofibular syndesmosis and interosseous membrane. Fractures of the distal tibia and medial or lateral malleoli are also associated with this type of fracture as well as a rupture of the deep deltoid ligament. This type of fracture is typically caused by an external rotational force.

EXAMPLE

S82.861A Displaced Maisonneuve's fracture of right leg, initial encounter for closed fracture

A pilon fracture is a comminuted fracture of the tibia near the ankle. Many times there is an associated fracture of the fibula. This type of fracture is caused by high-energy vertical axial loading which may occur due to a fall from height or motor vehicle accident. Pilon fractures are most common in adult males between 35 and 40 years-of-age.

EXAMPLE

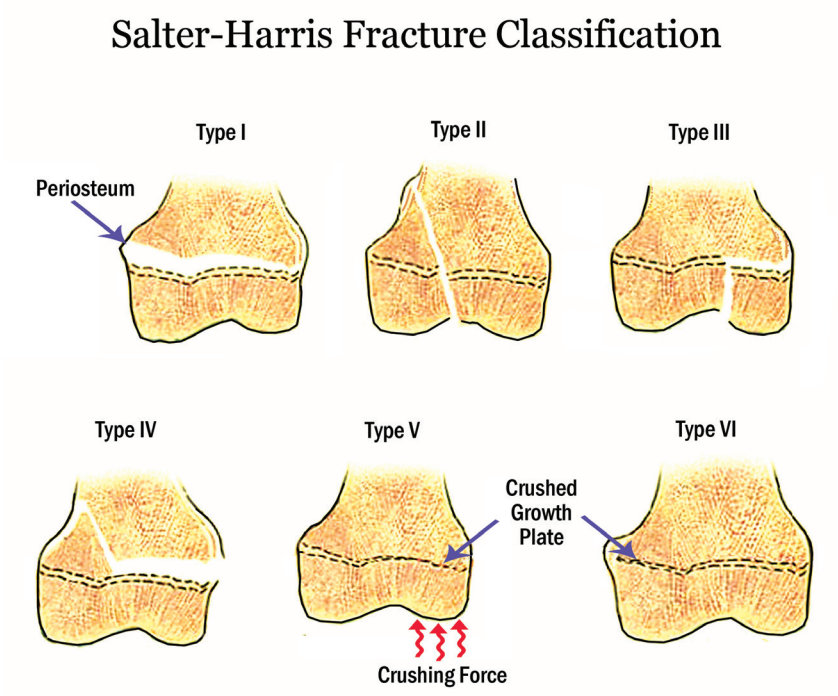
While painting, Jacob felt the foot of the ladder sink into the ground pitching the ladder to the left, causing him to lose his balance and jump to the ground from two-stories up. He is seen in the ED with left ankle and leg pain. Imaging shows a pilon fracture of the tibia and an associated comminuted fracture of the fibula.

S82.872A Displaced pilon fracture of left tibia, initial encounter closed fracture

S82.452A Displaced comminuted fracture of shaft of left fibula, initial encounter closed fracture

W11.XXXA Fall on and from ladder, initial encounter

Another common fracture seen in children is Salter-Harris fracture.



Source: AAPC

A Salter-Harris fracture is a traumatic fracture of the physeal and/or epiphyseal growth plate. Salter-Harris fractures occur in the extremities of children at the point where new bone is being formed as the bones grow. Salter-Harris Type I and Type II are commonly treated by family practitioners. Salter-Harris Types III–VI tend to need the care of orthopaedic specialists.

Type I Growth Plate Fracture:
Type I Salter-Harris fractures tend to occur in younger children. These injuries go directly across the growth plate, and the surrounding bone is not involved. Often, X-rays of a child with a type I growth plate fracture will appear normal. Healing of type I fractures tends to be rapid and complications are rare. Most type I growth plate injuries are treated with a cast.

Type II Growth Plate Fracture:
A type II growth plate fracture starts across the growth plate, but the fracture then continues up through the shaft of the bone (away from the joint). This is the most common type of growth plate fracture, and tends to occur in older children. Type II growth plate fractures usually heal quickly and complications are uncommon.

Type III Growth Plate Fracture:
A type III Salter-Harris fracture begins across the growth plate and continues by turning outward toward the joint and exits out the end of the bone into the joint, disrupting the cartilage. This type of fracture tends to occur in older children.

Type IV Growth Plate Fracture:
A type IV Salter-Harris fracture transects the growth plate with a fracture to the bone on each side of the growth plate. This type of fracture can affect the cartilage of the joint and may impair bone growth.

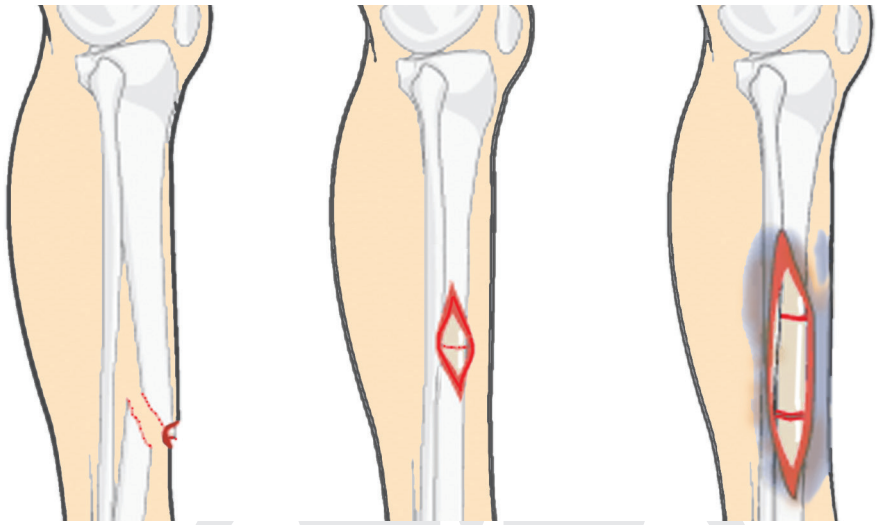
Type V Growth Plate Fracture:
A type V Salter-Harris fracture is the result of a crushing injury to the growth plate and end of the bone. This type of fracture may cause permanent damage to the growth plate affecting bone growth and limb alignment.

EXAMPLE

15-year-old Sarah presents with a displaced fracture of the right distal femur. Plain films reviewed, the fracture is found to be within the growth plate continuing proximally approximately 12 cm through the diaphysis.

S79.122A Salter-Harris Type II physeal fracture of lower end of left femur, initial encounter closed fracture

Open fractures are classified with the Gustilo classifications in ICD-10-CM. The Gustilo open fracture classification classifies fractures into three major categories depending on the mechanism of the injury, soft tissue damage and degree of skeletal involvement. The categories are Type I, Type II, and Type III. Type III is further subdivided into IIIA, IIIB, or IIIC. The higher up in the category, the worse the fracture and the more serious the injury.



Source: AAPC

Type I

The wound is less than 1 cm with minimal soft tissue injury, wound bed is clean. The fracture is usually a simple transverse, short oblique fracture, or with minimal comminution.

Type II

The wound is greater than 1 cm with moderate soft tissue injury. The fracture is usually a simple transverse, short oblique fracture, or with minimal comminution.

Type III

Fractures that involve extensive damage to the soft tissues, including muscle, skin, and neurovascular structures (gunshot wounds, neurovascular injury, farm injuries with soil contamination, and traumatic amputations).

Type IIIA

Adequate soft tissue coverage despite soft tissue laceration or high-energy trauma irrespective of size of wound, and includes segmental or severely comminuted fractures.

Type IIIB

Extensive soft tissue loss with periosteal stripping and bony exposure usually associated with massive contamination.

Type IIIC

Major arterial injury repair is required for limb salvation.

EXAMPLE

Patient is seen in emergency department following a motor vehicle accident. Patient was attempting to exit his car when it was struck by another car. He was not fully out of the vehicle, and the resulting impact caused the door to slam shut on his right forearm where it was wedged until assistance arrived.

Assessment: Open displaced transverse fracture of right ulna. Open fracture of radius with extensive comminution of the distal shaft. There is also injury due to bone fragments to the abductor pollicis longus muscle and possibly a laceration of the extender carpi radialis brevis tendon.

S52.351C Displaced comminuted fracture of the shaft of radius, right arm, initial encounter for open fracture type IIIA

S52.221C Displaced transverse fracture of shaft of right ulna, initial encounter for open fracture type IIIA

V43.42XA Person boarding or alighting a car injured in collision with other type car, initial encounter

Initial vs. Subsequent Encounter for Fractures

Most categories in chapter 19 have seventh character extensions that are required for each applicable code. Most categories in this chapter have three extensions (with the exception of fractures): A, initial encounter, D, subsequent encounter and S, sequela.

CODING TIP

Remember, the seventh character must always be the seventh character in the data field. If a code that requires a seventh character is not six characters in length, a placeholder X must be used to fill in the empty characters.

Traumatic fractures are coded using the appropriate seventh character extension for initial encounter (A, B, C) while the patient is receiving active treatment for the fracture. Examples of active treatment are: surgical treatment, emergency department encounter, and evaluation and treatment by a new physician.

A initial encounter for closed fracture

B initial encounter for open fracture type I or II or initial encounter for open fracture NOS

C initial encounter for open fracture type IIIA, IIIB, or IIIC

EXAMPLE

A patient underwent surgery for an open burst fracture of the first lumbar vertebra, which became unstable.

S32.012B Unstable burst fracture of first lumbar vertebra

Note: The seventh character B identifies the initial encounter for a nonspecified open fracture

After the patient has completed active treatment of the fracture and is receiving routine care for the fracture during the healing or recovery phase, fractures are coded using the appropriate seventh character extension for subsequent care with routine healing (D, E, F). An encounter for the care of fractures taking longer than normal to heal should be coded using the seventh character extension for delayed healing (G, H, J). Examples of subsequent care are: routine cast changes or removal, removal of external or internal fixation device, medication adjustment, other aftercare and follow-up visits following treatment of the injury.

G subsequent encounter for closed fracture with delayed healing

H subsequent encounter for open fracture type I or II with delayed healing

J subsequent encounter for open fracture type IIIA, IIIB, or IIIC with delayed healing

Care of complications of fractures, such as malunion and nonunion, should be reported with the appropriate seventh character extensions for subsequent care with nonunion (K, M, N) or subsequent care with malunion (P, Q, R).

K subsequent encounter for closed fracture with nonunion

M subsequent encounter for open fracture type I or II with nonunion

N subsequent encounter for open fracture type IIIA, IIIB, or IIIC with nonunion

P subsequent encounter for closed fracture with malunion

Q subsequent encounter for open fracture type I or II with malunion

R subsequent encounter for open fracture type IIIA, IIIB, or IIIC with malunion

EXAMPLE

A patient presents for a recheck of her closed fracture of the neck of the left radius. X-rays are taken and show a malunion of the fracture.

S52.132P Displaced fracture of neck of left radius, subsequent encounter for closed fracture with malunion

Care for complications of surgical treatment for fracture repairs during the healing or recovery phase should be coded with the appropriate complication codes. The aftercare Z codes should not be used for aftercare for traumatic injuries. For aftercare of a traumatic fracture, assign the acute fracture code with the appropriate seventh character.

EXAMPLE

Mr. Johnson presents with complaints of left hip pain. He is six months post total replacement of same. He states that the pain is constant and if he sleeps on his left side he is woken at night by a stabbing pain at the upper end of his thigh. After examining the area and reviewing films, the orthopaedist diagnosis the condition as pain due to prosthetic hip.

ICD-10-CM: T84.84XD Pain due to internal orthopedic prosthetic devices, implants and grafts, subsequent encounter

Seventh character extension S, sequela, is for use with complications or conditions that arise as a direct result of an injury, such as osteonecrosis or posttraumatic osteoarthritis. The necrosis of the bone is a sequelae of the fracture. When using extension S, it is necessary to use both the injury code that precipitated the sequela and the code for the sequela itself. The S is added only to the injury code, not the sequela code. The S extension identifies the injury responsible for the sequela. The specific type of sequela (eg, osteonecrosis) is sequenced first, followed by the injury code.

EXAMPLE

William presents to the office with increasing right shoulder joint pain and a decrease in the previous range of motion for the same. He was seen in this office six months ago for a comminuted fracture of the right proximal humeral shaft which subsequently healed nicely. X-rays now show necrosis of the humeral head.

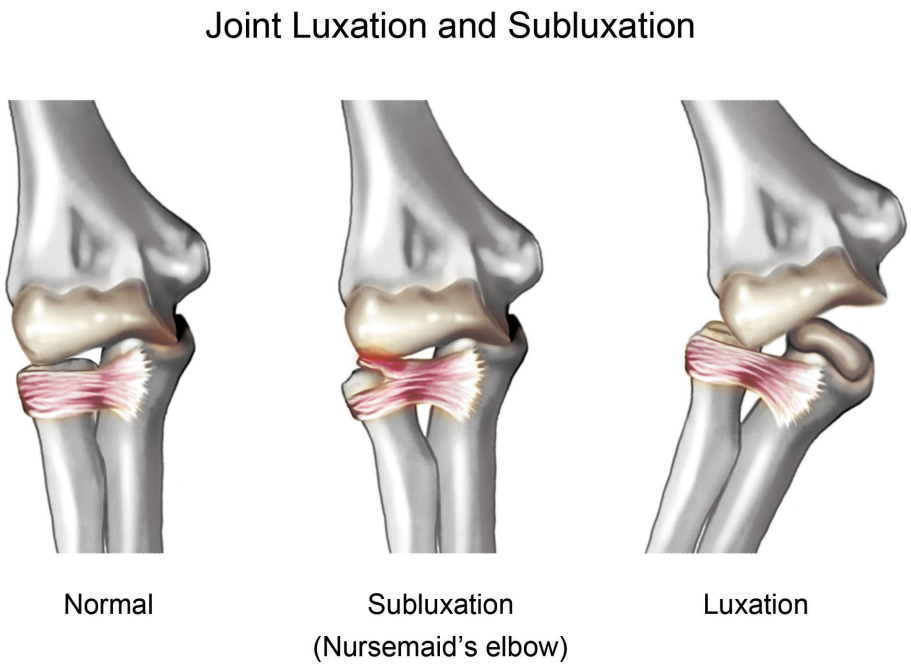
M87.221 Osteonecrosis due to previous trauma, right humerus
S42.351S Displaced comminuted fracture of shaft of humerus, right arm, sequela

Fractures Sequencing

Multiple fractures are sequenced in accordance with the severity of the fracture. The provider should be asked to list the fracture diagnoses in the order of severity.

Dislocations

As with the codes for fractures, codes for dislocations in ICD-10-CM have greatly expanded to include the joint dislocated, laterality, extent, position of the dislocation, and seventh character extender additions.

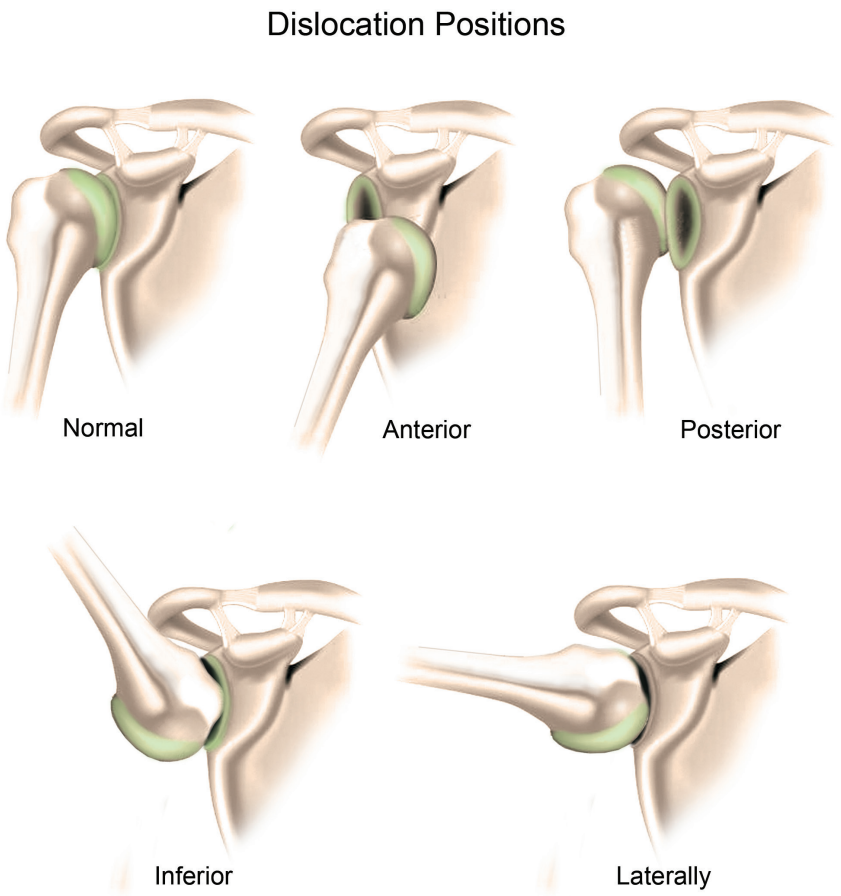


Source: AAPC

To assign a code to the highest level of specificity for a dislocation the documentation should be reviewed for information related to:

- Extent of the dislocation—
  - ☐ Subluxation—partial of incomplete dislocation of joint
  - ☐ Dislocation—is a complete dislocation of the joint and is also known as luxation of the joint

- ☐ Percentage—dislocations of certain joints are further classified by the extent based upon percentage of the dislocation.



Source: AAPC

Certain dislocation subcategories are further classified by the position of the dislocation

- Anterior—The end of the bone is displaced to the anterior, medial and slightly inferior to its normal anatomic position.
- Posterior—The end of the bone is displaced posterior to the joint and its normal anatomic position.
- Inferior—The end of the humerus is forced against the acromion causing the arm to lock in an upward and backward position.
- Laterally—The end of the bone is displaced outwardly (laterally) to the joint and its normal anatomic position.

EXAMPLE

10-year-old Sara jumped from her swing while she was on a swing set. She states she landed on her feet but fell forward and landed on her outstretched right arm. When she stood up she had pain in her shoulder and was unable to lift her arm. Plain films were completed.

Assessment: Anterior partial dislocation of right humerus

S43.011A Anterior subluxation of right humerus, initial encounter

In ICD-10-CM open or closed is no longer a combination code when coding for dislocations. Instead, ICD-10-CM includes an instructional note at the beginning of each category of dislocation (S03, S13. S23, S33, S43, S53, S63, S73, S83, S93) that informs the user to code separately any associated open wound.

EXAMPLE

Jessie was knocked down while feeding her pigs on the farm. She attempted to catch herself on her outstretch left forearm resulting in an open anterior dislocation of the left humerus.

ICD-9-CM: 831.11 Anterior dislocation of humerus, open

ICD-10-CM: S43.015A Anterior dislocation of left humerus, initial encounter
S41.042A Puncture wound with foreign body of left shoulder, initial encounter

Traumatic Connective Tissue and Muscle Injuries

Connective tissues within the musculoskeletal system work with the muscles and bones to aide in the production of movement, dictate your degree of flexibility, and protect surrounding tissue during muscle movement.

For proper code assignment in ICD-10-CM it is important to understand the terminology used in regard to both connective tissue and muscles.

Common terminology

- Fascia is a thin membrane surrounding the muscles, tendons, bones and other organs and tissues. In the musculoskeletal system it protects tissues around muscles during movement.
- Cartilage is a tough flexible tissue found in many places throughout the body. In relation to orthopaedics, cartilage covers and protects the end of the bone at the joint and allows the bones to articulate smoothly.

EXAMPLE

While playing basketball with some friends, Tim was attempting to pivot around another player when he bumped into them and lost his balance, placing his weight on the pivoting left foot and wrenching his knee. He was initially seen in the ED and referred to Orthopaedics. MRI studies show a complex tear of the lateral meniscus.

S83.272A Complex tear of lateral meniscus, current injury, left knee, initial encounter

W51.XXXA Accidental striking against or bumped into by another person, initial encounter

Y93.67 Activity, basketball

- Tendons are strong cords that attach muscle to bone at the point of insertion. They aid in movement as the muscle at the origin of the tendon is flexed.
- Ligaments, like tendons are tough cords that connect bone to bone. Ligaments provide stability to joints by holding the end of bones in place at the joint.
- Flexor muscles contract to bend a body part at the joint.
- Extensor muscles contract to straighten a body part at the joint.

- Adductor muscles are the muscles that contract to bring a body part (limb) toward the median line of the body. These include the adductor brevis, adductor magnus, and adductor longus of the thigh.

Injuries to the muscles or tendons in ICD-10-CM are classified by the laterality, site, and type of injury: strain, laceration or other injury. In categories S56, S66, and S96 the codes for injuries of the tendon or muscle are further classified by whether the muscle injured is a flexor or extensor muscles. Certain codes in categories S76 and S86 are further classified by the specific tendon or by muscle specified by type (adduction), name (quadriceps) or location (anterior, posterior).

EXAMPLE

James has a two day history of right groin pain. He states he woke up with the pain Sunday and it has continued since that time. Upon exam the area does not appear red or hot to touch. There is minor swelling in the area and there is pain to the touch and movement. Pain is localized to the inner thigh. Assessment: Strained adductor longus muscle.

S76.211A Strain of adductor muscle, fascia and tendon of right thigh, initial encounter

- Fasciitis is inflammation of the fascia; it may be due to an injury or another cause or condition.
- Strains are an injury to the muscle and/or tendon.
- Sprains are a tear or stretch of the ligament and are graded on a level of severity:
  - ☐ Grade 1—Mild damage to the ligament resulting from a slight stretch. The ligament is still able to hold the joint in correct anatomic position.
  - ☐ Grade 2—Partial tear of the ligament resulting from a stretch that causes the ligament to become loose.
  - ☐ Grade 3—Complete tear of the ligament resulting in instability of the joint.

ICD-10-CM does not classify sprains by degree or grade. When documentation includes the grade or degree of sprain it is coded to the specific site and laterality of the injury.

ICD-10-CM groups traumatic injuries such as tears, avulsions, and ruptures of the ligament under the condition of sprain. Sprains are further classified by laterality and the ligament or joint injured.

EXAMPLE

While playing soccer, Keegan attempted to retrieve the ball and collided with an opposing team player. Upon attempting to stand he states he immediately felt pain upon standing and ambulating. MRI was reviewed and demonstrates a partial PCL tear of the right knee.

S83.521A Sprain of the posterior cruciate ligament of the right knee, initial encounter

W51.XXXA Accidental striking against or bumped into by another person, initial encounter

Y93.66 – Activity soccer

Osteoporosis

Osteoporosis, meaning porous bone, is a systemic condition affecting all bones of the musculoskeletal system. Osteoporosis occurs when too little bone is made or too much bone is lost.

Human bones, much like blood cells, are constantly being remodeled. Old bone is broken down and recycled as new bone is made. This process of renewal occurs much more rapidly in childhood and young adulthood. As we age, the process slows down and over time the rate of breaking down old bone surpasses the rate of new bone growth. When great enough, this loss in bone mass or density causes the bone to become porous, brittle, weak, and more easily broken.

Bone Density Measurement (BDM) testing is used to determine the amount of bone loss present. A patient's current BDM is compared to the BDM at age 30. The difference is then calculated to determine if the patient's T-score. Depending upon the T-score a patient may have osteopenia (low bone mass) or osteoporosis (very low bone mass).

T-score	
-1.0	Normal bone mass
-1.0 to -2.5	Osteopenia
-2.5 or lower	Osteoporosis

More than nine million Americans have osteoporosis. Osteoporosis is more prevalent in women than men, with approximately 80 percent of Americans with osteoporosis being women. Risk factors for osteoporosis include:

- Nutritional deficiencies: calcium, vitamin D, and anorexia
- Hormonal disorders: hyperparathyroidism, hyperthyroidism, low estrogen, and low testosterone
- Medications/Drugs: Corticosteroids and antiseizure medications
- Other conditions: cystic fibrosis, acquired absence of ovaries, rheumatoid arthritis, asthma, and irritable bowel syndrome
- Lifestyle: smoking, inactivity, and alcohol use

Coding for osteoporosis in ICD-10-CM is not specified by the site of the condition so the anatomic site is not a component of the codes under category M81, Osteoporosis without current pathological fracture. The site codes under category M80, Osteoporosis with current pathological fracture, identify the site of the fracture, not the osteoporosis. This change in classification more accurately reflects the progression of the condition and increased treatment planning and care needed for the condition.

ICD-10-CM further classifies osteoporosis due to the underlying cause as age related or other.

Subcategory M80.0- *Age-related osteoporosis with a current pathological fracture* and M81.0- *Age-related osteoporosis without a current fracture,* also known as primary osteoporosis, includes:

Involutional osteoporosis is the loss of bone due to age. Involutional osteoporosis is also known as primary osteoporosis

Postmenopausal osteoporosis is due to the lack of estrogen leading to bone resorption at a faster rate than the production of new bone. Postmenopausal osteoporosis is also known as Type I osteoporosis.

Senile osteoporosis involves thinning of both the cortical (hard outer bone) and trabecular (spongy interior bone) bone typically occurs after age 70. Senile osteoporosis is also known as Type II osteoporosis.

Subcategory M80.8 Other osteoporosis with current pathological fracture and M81.8 *Other osteoporosis without current fracture* is also known as secondary osteoporosis and includes:

Certain medications and drugs may cause bone loss or retard bone growth and this is referred to as drug-induced osteoporosis. These drugs include; antiseizure medications, chemotherapy drugs, steroids, Proton pump inhibitors, and thyroid hormones.

Osteoporosis in which no underlying cause can be determined, such as osteoporosis in a seemingly healthy young adult is called idiopathic osteoporosis.

Osteoporosis of disuse occurs due to immobilization or lack of use of a bone.

Postoophorectomy osteoporosis is due to the underlying cause, which would be menopause, loss of estrogen, and higher rates of bone absorbtion.

Postsurgical malabsorption osteoporosis is a form of osteoporosis is caused by malabsorption of calcium, zinc, and other nutrients that occur after procedure done on the gastrointestinal tract, including bariatric surgery.

Post-traumatic osteoporosis is osteoporosis due to the decreased blood supply, which may be caused by nerve damage due to an injury or disuse of the body part in relation to pain caused by an injury.

Osteoporosis with Current Pathological Fracture

Category M80 *Osteoporosis with current pathological fracture*, is for patients who have a current pathologic fracture at the time of an encounter. The codes under M80 identify the site of the fracture. A code from category M80, not a traumatic fracture code, should be used for any patient with known osteoporosis who suffers a fracture, even if the patient had a minor fall or trauma, if that fall or trauma would not usually break a normal, healthy bone.

ICD-10-CM further classifies subcategories M80.0-, *Age-related osteoporosis with a current pathological fracture* and subcategory M80.8- *Other osteoporosis with current pathological fracture*, at the fifth and sixth character to identify the site and laterality of the fracture.

Pathological fracture sites included in category M80.0- are:

- M80.01- Age-related osteoporosis with a current pathological fracture, shoulder
- M80.02- Age-related osteoporosis with a current pathological fracture, humerus
- M80.03- Age-related osteoporosis with a current pathological fracture, forearm
- M80.04- Age-related osteoporosis with a current pathological fracture, hand

Pathological fracture sites included in subcategory M80.8 include:

- M80.85- Other osteoporosis with current pathological fracture, femur
- M80.86- Other osteoporosis with current pathological fracture, lower leg
- M80.87- Other osteoporosis with current pathological fracture, ankle and foot
- M80.88- Other osteoporosis with current pathological fracture, vertebra(e)

Subcategory M80.8- includes an instructional note directing the coder to use an additional code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5).

EXAMPLE

87-year-old Anne is seen today following a fall at home. She said she was preparing to use the toilet when the rug slipped and she fell the remaining distance to the seat. She believes she fell approximately four to five inches from above the seat. She was unable to raise herself up or walk without assistance and has pain in her low back.

Imaging-compression fracture of L4 and L5 secondary to post-menopausal osteoporosis

M80.08XA Age-related osteoporosis with current pathological fracture, vertebra(e), initial encounter

Osteoporosis Without Pathological Fracture

Category M81, Osteoporosis without current pathological fracture, is for use for patients with osteoporosis who do not currently have a pathologic fracture due to the osteoporosis, even if they have had a fracture in the past. For patients with a history of osteoporosis fractures, status code Z87.310 *Personal history of healed osteoporosis fracture* should follow the code from M81.

Identifying the history of a healed osteoporotic fracture reflects both the progression of the condition of osteoporosis but also the quality of management of the condition.

EXAMPLE

A patient is treated with medication for postmenopausal osteoporosis. The patient had a pathologic fracture one year ago and the physician is following her condition every three months.

M81.0 Age-related osteoporosis without current pathological fracture

Z87.310 Personal history of (healed) osteoporosis fracture

There is an instructional note under both category M80 and category M81 that instructs the coder to use an additional code to identify major osseous defect, if applicable (M89.7-) A major osseous defect is caused when large amounts of bone is lost. This may occur due to a breakdown of bone after prosthetic joint replacement or due to osteomyelitis, osteonecrosis or other pathologic conditions like osteoporosis.

Arthritis and Osteoarthritis

Arthritis and osteoarthritis have both site and laterality designations in ICD-10-CM. It also includes the type of arthritis such as primary, secondary, or post-traumatic.

Primary osteoarthritis is considered "wear and tear" osteoarthritis. Secondary osteoarthritis is more commonly diagnosed. Secondary osteoarthritis is usually caused by an injury, heredity, obesity, or something else. The treatment for both types is usually the same.

ICD-10-CM classifies osteoarthritis to categories M15 through M19. Each of these categories are further classified by the type, joint affected and laterality.

Types of polyosteoarthritis classified to category M15 include:

- M15.0 Primary Generalized
- M15.1 Heberden's nodes
- M15.2 Bouchard's nodes
- M15.3 Secondary multiple arthritis
- M15.4 Erosive osteoarthritis
- M15.8 Other polyosteoarthritis
- M15.9 Polyosteoarthritis, unspecified

ICD-10-CM classifies primary, secondary, post-traumatic, and osteoarthritis due to other contributing factors to categories M16 through M19. These categories are further broken down by type, site, and laterality and many include choices for bilateral sites.

Subcategory Examples:

- M16.0 Bilateral primary osteoarthritis of hip
- M16.3- Unilateral osteoarthritis resulting from hip dysplasia
- M16.4 Bilateral post-traumatic osteoarthritis of hip
- M16.7 Other unilateral secondary osteoarthritis of hip
- M17.0 Bilateral primary osteoarthritis of knee
- M17.3- Unilateral post-traumatic osteoarthritis of knee
- M17.4 Other bilateral secondary osteoarthritis of knee
- M18.1- Unilateral primary osteoarthritis of first carpometacarpal joint
- M18.2 Bilateral post-traumatic osteoarthritis of first carpometacarpal joints

EXAMPLE

Subjective: 62-yr-old female with osteoarthritis for 3 years. Takes anti-inflammatory medications when needed. She complains of pain in both knees. It is affecting her walking ability and preventing her from going up and down stairs.

Objective: Upon exam there is edema at the anterior/posterior aspect of the knee joints and edema at the medial/superior aspect of the right knee. There is tenderness to palpation bilaterally.

Assessment: Primary osteoarthritis confined to the knees

M17.0 Bilateral primary osteoarthritis of knee

Rheumatoid arthritis (RA) is a chronic systemic disease that affects the joints, connective tissues, muscle, tendons, and fibrous tissue. RA is a chronic disabling condition often causing pain and deformity. An autoimmune disorder, RA is the result of the immune system mistakenly attacking its own body's tissues.

Rheumatoid arthritis is much more common in women than in men and generally occurs between the ages of 40 and 60. Rheumatoid arthritis increases the risk of developing osteoporosis, carpal tunnel syndrome, heart problems, and lung disease.

Juvenile RA is the most common type of arthritis in children under the age of 16 and causes persistent joint pain, stiffness, and swelling. Children with juvenile RA are at a higher risk for developing eye and growth problems.

Codes for rheumatoid arthritis in ICD-10-CM are combination codes and broken down by site, laterality, complication, and with or without rheumatoid factor. Rheumatoid factor is an antibody in the blood that's present in many, but not all, people with RA.

EXAMPLES

M05.141 Rheumatoid lung disease with rheumatoid arthritis of right hand

M06.022 Rheumatoid arthritis without rheumatoid factor, left elbow

M08.261 Juvenile rheumatoid arthritis with systemic onset, right knee

Gout

Gout is one of the most painful forms of arthritis. Gout is caused by high levels of uric acid in the blood which in turn may cause urate crystals to accumulate in joints. Common symptoms of gout include pain in the joints, itchy and peeling skin, redness and inflammation at the site, red or purplish skin, fever, loss of flexibility of the joint, and/or nodules in the elbows, hands, or ears.

Gout may be acute or chronic and primary or secondary. There are many underlying causes that may increase the levels of uric acid leading to gout. Family history, alcohol, drugs or other chemicals, renal impairment, and diet may also play a role. Primary or classic gout is also known as idiopathic gout and may be caused by a hormonal, genetic, or dietary factors or a combination of these. Secondary gout is caused by drug therapy or other medical conditions.

Gouty tophi may develop as the result of chronic gout. Gouty tophi are caused by the accumulation of uric acid crystals below the skin yet can occur anywhere in the body. They are usually painless but may need to be excised if they become inflamed or interfere with day-to-day task due to the location.

ICD-10-CM classifies gout to categories M1A through M10.9. The codes for gout are combination codes which identify the type of gout as chronic or acute, primary or secondary, underlying cause, site, laterality, and the presence of tophi.

ICD-10-CM subcategories for gout include;

- M1A.0- Idiopathic chronic gout
- M1A.1- Lead-induced chronic gout
- M1A.2- Drug-induced chronic gout
- M1A.3- Chronic gout due to renal impairment
- M1A.4- Other secondary chronic gout
- M10.0- Idiopathic gout (acute)
- M10.1- Lead-induced gout
- M10.2- Drug-induced gout
- M10.3- Gout due to renal impairment
- M10.4- Other secondary gout

Codes from category M1A, *Chronic gout*, have a 7th character extender to indicate the presence of tophus:

> The appropriate 7th character is to be added to each code from category M1A:
>
> 0 without tophus (tophi)
>
> 1 with tophus (tophi)

When the site of the condition is specified but the gout is not specified as acute or chronic, the condition is coded to category M10 based upon the underlying cause as primary or secondary, and the site. If the underlying cause or if the condition is acute or chronic the condition is coded to subcategory M10.0- *Idiopathic gout*, based upon the site.

There are multiple instructional notes found throughout the section of codes for gout.

Both categories M1A and M10 include instructional notes to use additional codes to identify associated conditions:

Autonomic neuropathy in diseases classified elsewhere (G99.0)

Calculus of urinary tract in diseases classified elsewhere (N22)

Cardiomyopathy in diseases classified elsewhere (I43)

Disorders of external ear in diseases classified elsewhere (H61.1-, H62.8)

Disorders of iris and ciliary body in diseases classified elsewhere (H22)

Glomerular disorder in disease classified elsewhere (N08)

Subcategories M1A.1 and M10.1 include an instructional note that states to code first toxic effect of lead and its compounds (T56.0-).

Subcategories M1A.2- and M10.2 include an instructional note that states to use an additional code for an adverse effect, if applicable, to identify the drug (T36-T50 with fifth or sixth character 5).

Subcategories M1A.3- and M10.3- include an instructional note that states to code first associated renal disease.

Category M1A and subcategory M10.4- include an instructional note that states to code first the associated condition.

EXAMPLE

A 62-year-old male presents with severe pain in his left ankle and great toe. The affected joints are swollen, erythematous, and painful. He denies recent or past injury to these areas. On exam the joints are very tender to even light touch with limited range of motion of these joints related to pain. Lab values show a normal WBC and a uric acid level of 9.7 (above normal).

Assessment: Acute primary gout of left ankle and toe.

M10.072 Idiopathic gout, left ankle and foot

Advanced Coding for Urinary System Conditions

In ICD-10-CM, codes for diseases of the urinary system are located in chapter 14. Chronic kidney disease and urinary tract infections will be covered here.

Chronic Kidney Disease

Chronic kidney disease is characterized by the gradual loss of kidney function over time. the kidneys have decreased ability to filter blood as well as possible, which can cause waste to build up in the body and lead to other health issues, like cardiovascular disease, anemia, and bone disease. The Centers for Disease Control and Prevention (CDC) estimates more than 10 percent of people aged 20 and over in the United States have CKD, more than 35 percent of people aged 20 and over with diabetes have CKD, and more than 20 percent of people aged 20 and over with hypertension have CKD. It is usually irreversible and over time can lead to end stage renal disease (ESRD), for which the only treatment options are dialysis or kidney transplant.

ESRD is when the kidneys are no longer able to provide waste removal for the body. The leading causes of ESRD are diabetes and hypertension, but glomerulonephritis, hereditary kidney disease, and malignancies also are factors.

As in ICD-9-CM, the codes for CKD in ICD-10-CM are based on severity, designated by stage. The stages are mainly based on measured or estimated glomerular filtration rate (GFR), which estimates how much blood passes through the tiny filters in the kidneys (glomeruli) each minute. It indicates how well the kidneys are filtering creatinine (waste produced by the muscles). When the kidneys are not functioning properly, creatinine builds up in the blood.

The codes are located in category N18:

- N18.1 Chronic kidney disease, stage 1,
- N18.2 Chronic kidney disease, stage 2 (mild),
- N18.3 Chronic kidney disease, stage 3 (moderate),
- N18.4 Chronic kidney disease, stage 4 (severe),
- N18.5 Chronic kidney disease, stage 5,
- N18.6 End stage renal disease, and
- N18.9 Chronic kidney disease, unspecified.

The National Kidney Foundation Kidney Disease Outcomes Quality Initiative (NKF KDOQI) has provided evidence-based clinical practice guidelines for all stages of CKD, including a staging template for CKD based on the GFR:

Stage	GFR*	Description	Treatment stage
1	**90+**	Normal kidney function but urine findings or structural abnormalities or genetic trait point to kidney disease	Observation, control of blood pressure. More on management of Stages 1 and 2 CKD.
2	**60-89**	Mildly reduced kidney function, and other findings (as for stage 1) point to kidney disease	Observation, control of blood pressure and risk factors. More on management of Stages 1 and 2 CKD.
3A **3B**	**45-59** **30-44**	Moderately reduced kidney function	Observation, control of blood pressure and risk factors. More on management of Stage 3 CKD.
4	**15-29**	Severely reduced kidney function	Planning for endstage renal failure. More on management of Stages 4 and 5 CKD.
5	**<15 or on dialysis**	Very severe, or **endstage** kidney failure (sometimes call **established renal failure**)	Treatment choices. More on management of Stages 4 and 5 CKD.

There are other factors to consider when coding CKD that may affect the sequencing of the codes reported. The instructional notes at the beginning of the category state to code first any associated diabetic chronic kidney disease or hypertensive chronic kidney disease. The guidelines (I.C.14.3) confirm this as they state, "The sequencing of the CKD code in relationship to codes for other contributing conditions is based on the conventions in the Tabular List." The codes for diabetic chronic kidney disease (E08.22, E09.22, E10.22, E11.22, E13.22) and the codes for hypertensive chronic kidney disease (I12.-, I13.-) all have an instructional note to use an additional code to identify the stage of chronic kidney disease.

Category N18 also states to use an additional code to identify kidney transplant status, if applicable with code Z94.0. This relates to guideline (I.C.14.2) which acknowledges that patients that have undergone kidney transplant may still have some form of CKD because the kidney transplant may not fully restore kidney function. It also makes it clear that the presence of CKD in a transplant patient does not, by itself, denote a transplant complication. If the documentation is unclear as to whether the patient has a complication of the transplant, the provider should be queried.

There is an important *Excludes1* note for code N18.5 that states if the patient has CKD Stage 5 that requires chronic dialysis, it should be coded to N18.6, *End stage renal disease*

Under code N18.6 it also states to use an additional code to identify dialysis status with code Z99.2 (dependence on renal dialysis).

EXAMPLE

A 75-year-old patient presents for evaluation. He has stage 3 CKD and hypertension. He now has anemia of renal disease. He is feeling weak and tired. His GFR is at 31mL/min. He has no hematuria, foamy urine, pyuria, frequency, dysuria, weak stream or dribbling. His last creatinine was 2.2.

CKD stage 3

Hypertension. well controlled. Cozaar dosage unchanged.

Anemia of renal disease. will start on Aranesp 60 mcg every two weeks.

See him back in 3 months.

I12.9 Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease

N18.3 Chronic kidney disease, stage 3

D63.1 Anemia in chronic kidney disease

In this example, the instructional note under I12.9 and category N18 indicates the hypertension code should be first listed. Under the code for anemia (D63.1) it states to code first the chronic kidney disease. This creates the order of the codes listed above: hypertension, CKD, anemia.

EXAMPLE

Laura presents to the clinic. She is a 55-year-old diabetic patient with diabetic chronic kidney disease. She is overweight with a BMI at 29, not exercising, and not following her dietary regimen planned for her by the dietitian. She was diagnosed in her teens and states that she was used to eating whatever she wanted and has trouble sticking to her plan. I informed her that her GFR results have been declining and are now at 28, which makes her CKD stage 4.

E11.22 Type 2 diabetic chronic kidney disease

N18.4 Chronic kidney disease, stage 4

E66.3 Overweight

Z68.29 Body mass index (BMI) 29.0-29.9, adult

Z91.11 Patient's noncompliance with dietary regimen

In this example, the instructional note under E11.22 and the category N18 indicates the diabetes code should be first listed. Under the code for overweight (E66.3) it states to code the BMI, if known. The patient was also noted to be noncompliant with the dietary regimen given to her by the dietitian.

EXAMPLE

Vera presents to the clinic. She had a kidney transplant 30 years ago and has not been feeling well, noting some edema and weight loss. Her test results are discussed, showing an increase in BUN and creatinine and a GFR of 60. She is diagnosed with CKD stage 2.

N18.2 Chronic kidney disease, stage 2

Z94.0 Kidney transplant status

Patients with chronic kidney disease usually have other conditions that need to be considered when coding. A thorough understanding of the guidelines will ensure appropriate coding and sequencing when reporting these cases.

Urinary Tract Infections (UTI) and Inflammation

A UTI can occur anywhere in the urinary system—kidneys (pyelonephritis), ureters (ureteritis), bladder (cystitis), or urethra (urethritis). Bacteria are the most common cause of UTI, with Escherichia coli (E. coli) being the most common infectious agent. Urinary tract infections are the second most common type of infection in the body. Women are more prone to UTIs because the female urethra is shorter (allowing bacteria quicker access to the bladder) and the urethral opening is near the anus and vagina (sources of bacteria). A woman's chance of having a UTI is greater than 50 percent. UTIs account for approximately 8.1 million visits to health care providers each year.

The codes for urinary tract infections and inflammation in ICD-10-CM are grouped by site, additionally broken down by temporal parameters and whether or not hematuria is present. They include:

- Acute cystitis (N30.00 without hematuria and N30.01 with hematuria): Infection of the bladder, usually bacterial in nature;
- Interstitial cystitis (N30.10 without hematuria and N30.11 with hematuria): Chronic condition that results in recurring discomfort or pain in the bladder and the surrounding pelvic region. It may also be referred to as painful bladder syndrome;
- Other chronic cystitis (N30.20 without hematuria and N30.21 with hematuria);
- Trigonitis (N30.30 without hematuria and N30.31 with hematuria): Although the name suggests inflammation of the trigone, it is actually a metaplastic (changing of one tissue into another) process. The cause is unknown, but usually occurs in response to an irritative or infectious process;
- Irradiation cystitis (N30.40 without hematuria and N30.41 with hematuria): Inflammation of the urinary bladder following radiation therapy of pelvic organs;
- Other cystitis (N30.80 without hematuria and N30.81 with hematuria);
- Nonspecific urethritis (N34.1): Inflammation of the urethra due to an unknown cause (sometimes called non-gonococcal urethritis); and
- Other urethritis (N34.2): The examples under this code include urethral meatitis, postmenopausal urethritis, ulcer of urethra, and urethritis NOS.

There is an instructional note with all of these codes that states to use an additional code to identify the infectious agent (B95-B97).

EXAMPLE

Janet presents for bladder instillation for her chronic interstitial cystitis with associated hematuria. She states she is in a lot of discomfort and says she cannot function on a daily basis and care for her children in this condition. She was given 10 mg of morphine subcutaneously for comfort during the procedure. The bladder was instilled with lidocaine gel, and after a 10-minute wait, DMSO (Dimethyl Sulfoxide), Kenalog, heparin, and sodium bicarbonate. The catheter was removed and the solution retained for one hour, with changing position every 15 minutes. Patient tolerated the procedure well.

N30.11 Interstitial cystitis (chronic) with hematuria

EXAMPLE

Monica presents for a follow-up visit for urethritis. Patient originally presented with complaints of burning, urgent urination, abdominal pain, and fever/chills. Urine culture revealed E. coli. She has completed her course of antibiotics and presents for a repeat urine culture. Will call with results.

N34.1 Nonspecific urethritis

B96.20 Unspecified Escherichia coli as the cause of diseases classified elsewhere

Advanced Coding for Integumentary System Conditions

In ICD-10-CM, codes for diseases of the skin and subcutaneous tissue are located in chapter 12. Pressure ulcers and non-pressure ulcers will be covered here.

Pressure Ulcers

Pressure ulcers are injuries to skin and underlying tissues that result from prolonged pressure on the skin. The codes are located in category L89 in ICD-10-CM. Pressure ulcers most often develop on skin that covers bony areas of the body, such as the heel, ankles, hips or buttocks. In ICD-10-CM, pressure ulcers are now combination codes that integrate site, laterality, and stage. There is also an instructional note that states to code first any associated gangrene.

The subcategories for the specific sites are listed below.

- L89.0- Elbow (right and left)
- L89.1- Back, upper and lower (right and left)
- Includes sacral region (L89.15-)
- L89.2- Hip (right and left)
- L89.3- Buttock (right and left)
- L89.4- Back, buttock, and hip
- L89.5- Ankle (right and left)
- L89.6- Heel (right and left)
- L89.8- Other sites

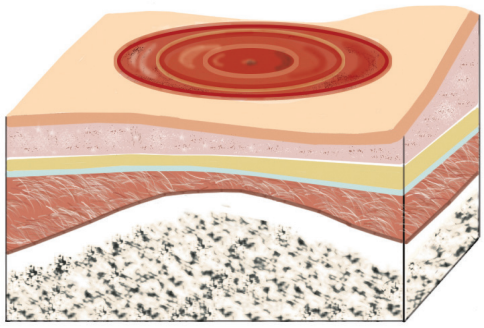
Severity is the final piece of the coding puzzle for pressure ulcers in ICD-10-CM. The National Pressure Ulcer Advisory Panel, a professional organization that promotes the prevention and treatment of pressure ulcers, has defined each stage as follows:

Stage I

The beginning stage of a pressure sore has the following characteristics:

- The skin is intact.
- The skin appears red on people with lighter skin color, and the skin doesn't briefly lighten (blanch) when touched.

- On people with darker skin, there may be no change in the color of the skin, and the skin doesn't blanch when touched. Or the skin may appear ashen, bluish or purple.
- The site may be painful, firm, soft, warmer or cooler compared with the surrounding skin.

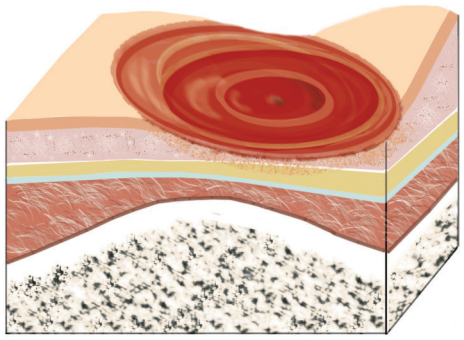


Source: AAPC

Stage II

The stage II ulcer is an open wound:

- The outer layer of skin (epidermis) and part of the underlying layer of skin (dermis) is damaged or lost.
- The pressure ulcer may appear as a shallow, pinkish-red, basin-like wound.
- It may also appear as an intact or ruptured fluid-filled blister.



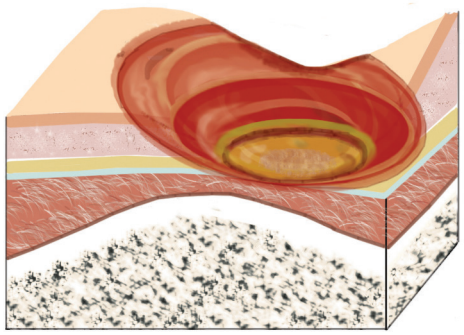
Source: AAPC

Stage III

At this stage, the ulcer is a deep wound:

- The loss of skin usually exposes some amount of fat.
- The ulcer has a crater-like appearance.
- The bottom of the wound may have some yellowish dead tissue (slough).

The damage may extend beyond the primary wound below layers of healthy skin.



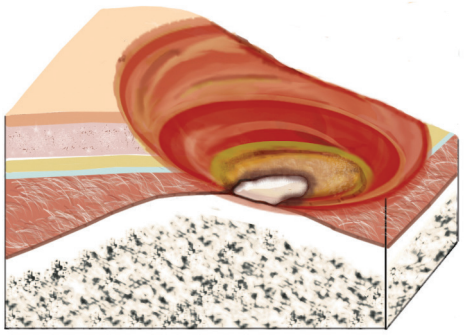
Source: AAPC

Stage IV

A stage IV ulcer exhibits large-scale loss of tissue:

- The wound may expose muscle, bone and tendons.
- The bottom of the wound likely contains slough or dark, crusty dead tissue (eschar).

The damage often extends beyond the primary wound below layers of healthy skin.



Source: AAPC

There are separate codes for stage 1-4 and one for unstageable. Unstageable is *not* the same as unspecified. The guidelines state that assignment of the code for unstageable pressure ulcer should be based on the clinical documentation. These codes are used for pressure ulcers whose stage cannot be clinically determined (eg, the ulcer is covered by eschar or has been treated with a skin or muscle graft) and pressure ulcers that are documented as deep tissue injury but not documented as due to trauma. This code should not be confused with the codes for unspecified stage. When there is no documentation regarding the stage of the pressure ulcer, assign the appropriate code for unspecified stage.

A coder needs to be able to pull this information from the medical record and understand how it correlates to the correct ICD-10-CM code or codes.

EXAMPLE

A wheelchair-bound patient presents for a checkup. He complains of buttock pain and is moved to the exam table for a more thorough exam. A 3 X 3.25 cm stage 2 pressure ulcer is found over the right ischial tuberosity.

L89.312 Pressure ulcer of right buttock, stage 2

Z99.3 Dependence on wheelchair

EXAMPLE

Patient is 72 and has recently been discharged from the hospital. She complains of pain in her left buttock. It hurts when she sits down, so she has been shifting her weight to her right side to stop the pain, but this is causing stiffness. On examination, there is an oval area of broken skin, with dermal and epidermal skin loss, about 1 cm in diameter, indicating a Stage 2 pressure ulcer.

L89.322 Pressure ulcer of left buttock, stage 2

Non-Pressure Chronic Ulcers

A bigger change from a coding perspective will be seen with non-pressure ulcers, located in categories L97 and L98 in ICD-10-CM. In ICD-9-CM, the non-pressure ulcers are only broken down by site. But in ICD-10-CM, they are now similar to pressure ulcers, including site, laterality and severity in the code classification. There are also instructional notes for the codes that state to code first and associated underlying conditions, such as:

any associated gangrene (I96)

atherosclerosis of the lower extremities(I70.23-, I70.24-, I70.33-, I70.34-, I70.43-, I70.44-, I70.53-, I70.54-, I70.63-, I70.64-, I70.73-, I70.74-)

chronic venous hypertension (I87.31-, I87.33-)

diabetic ulcers (E08.621, E08.622, E09.621, E09.622, E10.621, E10.622, E11.621, E11.622, E13.621, E13.622)

postphlebitic syndrome (I87.01-, I87.03-)

postthrombotic syndrome (I87.01-, I87.03-)

varicose ulcer (I83.0-, I83.2-)

The subcategories for the specific sites are listed below.

- L97.1- Thigh (right and left)
- L97.2- Calf (right and left)
- L97.3- Ankle (right and left)
- L97.4- Heel and midfoot (right and left)
- L97.5- Other part of foot (right and left)
- L97.8- Other part of lower leg (right and left)
- L98.41- Buttock
- L98.42- Back
- L98.49- Skin of other sites

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Severity is the final component to look for in the documentation of non-pressure ulcers. From a coding perspective, the codes are broken down in the following manner:

- Limited to breakdown of skin
- With fat layer exposed
- With necrosis of muscle
- With necrosis of bone

It will be necessary to work with family practitioners on the new coding parameters to ensure that the documentation meets the ICD-10-CM standards. If not, unspecified codes will have to be assigned, which may pose reimbursement issues.

EXAMPLE

Patient is a type 2 diabetic who presents with a type 2 diabetic left midfoot ulcer open into the dermis, but no full-thickness.

E11.621 Type 2 diabetes mellitus with foot ulcer

L97.421 Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin

EXAMPLE

Patient seen for venous stasis ulcer of right calf with the fat layer exposed.

I83.012 Varicose veins of right lower extremity with ulcer of calf

L97.212 Non-pressure chronic ulcer of right calf with fat layer exposed

Advanced Coding for Endocrine, Nutritional, and Metabolic System Conditions

In ICD-10-CM, codes for diseases of the endocrine, nutritional, and metabolic systems are located in chapter 4. Diabetes mellitus and overweight/obesity will be covered here.

Diabetes Mellitus

Diabetes mellitus is a condition that occurs when the body can't use glucose normally. Glucose is the main source of energy for the body's cells. The levels of glucose in the blood are controlled by a hormone called insulin, which is made by the pancreas. Insulin helps glucose enter the cells. Type 1 diabetes develops when the pancreas does not make enough insulin. Type 2 diabetes develops when the body is unable to respond normally to the insulin that is made. The inability of the body to process insulin causes glucose levels to rise in the blood leading to symptoms such as increased urination, extreme thirst, and unexplained weight loss. Diabetes mellitus is a chronic disease that causes serious health complications including renal failure, heart disease, stroke, and blindness.

According to the American Diabetes Association, the latest data released from the National Diabetes Fact Sheet (released Jan. 26, 2011), there are 25.8 million Americans living with diabetes. That is 8.3 percent of the population. This figure includes 18.8 million people diagnosed with diabetes, and 7 million people that are undiagnosed. There are 79 million people estimated to have prediabetes.

According to the guidelines (I.C.4.a), the diabetes mellitus codes are combination codes that include the type of diabetes mellitus, the body system affected, the complications affecting that body system, and if the patient is on long term insulin if a non-type 1 diabetic patient. As many codes within a particular category as are necessary to describe all of the complications of the disease may be used. They should be sequenced based on the reason for a particular encounter. Assign as many codes from categories E08–E13 as needed to identify all of the associated conditions that the patient has.

In all specialties, diabetes will be a common condition seen in the practice. The way diabetes is coded is different than in ICD-9-CM with all of the combination codes. A thorough understanding of what to look for in the documentation and how it fits together for coding purposes is necessary in order to assign codes properly in ICD-10-CM.

There are five diabetes mellitus categories in the ICD-10-CM. They are:

- E08 Diabetes mellitus due to an underlying condition
- E09 Drug or chemical induced diabetes mellitus
- E10 Type 1 diabetes mellitus
- E11 Type 2 diabetes mellitus
- E13 Other specified diabetes mellitus

Definitions for the types of diabetes mellitus are included in the "Includes notes" under each DM category. Physicians should be instructed to document the type of diabetes as type 1 or type 2, when appropriate, and not insulin and non-insulin dependent as these terms are no longer used in the coding schema.

The subcategories for the complications with the body systems affected by diabetes mellitus are as follows:

- Ketoacidosis
  - ☐ Without coma
  - ☐ With coma
- Kidney complications
  - ☐ Diabetic nephropathy
  - ☐ Diabetic chronic kidney disease
  - ☐ Other diabetic kidney complications
- Ophthalmic complications
  - ☐ Diabetic retinopathy
    - » Mild nonproliferative with/without macular edema
    - » Moderate nonproliferative with/without macular edema
    - » Severe nonproliferative with/without macular edema
    - » Proliferative with/without macular edema
  - ☐ Diabetic cataract
  - ☐ Other diabetic ophthalmic complications

- Neurological complications
  - ☐ Diabetic neuropathy
    - » Diabetic mononeuropathy
    - » Diabetic polyneuropathy
    - » Diabetic autonomic (poly)neuropathy
  - ☐ Diabetic amyotrophy
  - ☐ Other diabetic neurological complications
- Circulatory complications
  - ☐ Diabetic peripheral angiopathy with/without gangrene
  - ☐ Other circulatory complications
- Other specified complications
  - ☐ Diabetic arthropathy
    - » Diabetic neuropathic arthropathy
    - » Other diabetic arthropathy
  - ☐ Skin complications
    - » Diabetic dermatitis
    - » Foot ulcer
    - » Other skin ulcer
    - » Other skin complication
  - ☐ Oral complications
    - » Periodontal disease
    - » Other oral complications
  - ☐ Hypoglycemia
    - » With coma
    - » Without coma
  - ☐ Hyperglycemia
  - ☐ Other specified complication

All the categories above with the exception of E10 include a note directing users to use an additional code to identify any insulin use, which is Z79.4. The concept of insulin and non-insulin requiring are not a component of the diabetes mellitus (DM) categories in ICD-10-CM. Code Z79.4 *Long-term current use of insulin* is added to identify the use of insulin for diabetic management even if the patient is not insulin dependent in code categories E08–E09 and E11–E13.

EXAMPLE

Patient is a 34-year-old male with significant type 1 diabetic polyneuropathy. Exam is significant for lower extremity numbness throughout. Monofiliament test shows more than 3 regions without sensation bilaterally. Bottoms of feet appear calloused and dry. Skin is intact.

E10.42 Type 1 diabetes mellitus with diabetic polyneuropathy

Codes from categories E10–E13 (diabetes mellitus) are sequenced first, followed by codes for any additional complications outside of these categories if applicable.

EXAMPLE

70-year-old female with type 2 diabetic CKD, stage 4. Patient's current and regular medications include NovoLog 20 units with each meal, Lantus 30 units at bedtime.

E11.22 Type 2 diabetic mellitus with diabetic chronic kidney disease

N18.4 Chronic kidney disease, stage 4 (severe)

Z79.4 Long term (current) use of insulin

Categories E08, E09, and E13 identify complications/manifestations associated with secondary diabetes mellitus. According to the guidelines (I.C.4.6.b), the sequencing of secondary diabetes codes in relationship to codes for the cause of the diabetes is based on the Tabular List instructions. Diabetes codes from category E08 have a "Code first" note indicating that diabetes is to be sequenced after the underlying condition. Diabetes codes from category E09 have two sequencing notes. It states to code first poisoning due to drug or toxin, if applicable and to use an additional code for the adverse effect, if applicable, to identify the drug.

EXAMPLE

Janet presents for cystic fibrosis-related diabetes check. She is doing well on her insulin and continues to consume the correct protein (15 percent) and fat levels (35 percent) daily. Eating a lot of fish and chicken and consuming extra salt when hot outside. Diagnosis: CFRD. Doing well. Labs before next visit. See back in 2 months.

E84.8 Cystic fibrosis with other manifestations

E08.9 Diabetes mellitus due to underlying condition without complications

Z79.4 Long term use of insulin

There is a specific guideline regarding the sequencing of secondary diabetes due to a pancreatectomy (I.C.4.6.b.i)). For postpancreatectomy diabetes mellitus assign code E89.1, Postprocedural hypoinsulinemia. Assign a code from category E13 and a code from subcategory Z90.41- Acquired absence of pancreas, as additional codes.

EXAMPLE

A patient presents with diabetes secondary to a partial pancreatectomy. The patient uses insulin on a regular basis.

E89.1 Postprocedural hypoinsulinemia

Z90.411 Acquired partial absence of pancreas

E13.9 Other specified diabetes mellitus without complications

Z79.4 Long-term (current) use of insulin

Following the instructional notes leads to the sequencing of the above example. Under code E89.1, it states to use an additional code to identify the acquired absence of the pancreas, postprocedural diabetes, and insulin use. When code Z90.411 is referenced, it states to use an additional code to identify the postprocedural diabetes, and insulin use. This means that the E89 category code would be listed first, followed by the Z90 category code, followed by the E13 category code, with the final code from category Z79.

Overweight and Obesity

Overweight and obesity are abnormal or excessive fat accumulation that may impair health. The main cause of overweight and obesity is an energy imbalance between the calories taken in and the calories expended. Body mass index (BMI) is an index of weight-to-height that is commonly used to classify overweight and obesity in adults. It is a person's weight in kilograms divided by the square of the person's height in meters (kg/m^2). The World Health Organization (WHO) uses the following measures for overweight and obesity:

- BMI greater than or equal to 25 is overweight
- BMI greater than or equal to 30 is obese

Overweight and obesity are major global problems. According to WHO, in 2008 almost 1.5 billion adults (35 percent) were overweight with over 200 million men and almost 300 million women (11 percent) were obese. In 2011, the WHO statistics indicate that more than 40 million children under the age of five were overweight.

Being overweight or obese puts a patient at a higher risk for many health problems, including:

Coronary artery disease

Hypertension

Type 2 diabetes mellitus

Cholelithiasis

Breathing problems

Certain cancers

In ICD-10-CM, codes for overweight and obesity are located in category E66 and are broken down by severity, contributing factors, and manifestation:

- E66.01 Morbid (severe) obesity due to excess calories
- E66.09 Other obesity due to excess calories
- E66.1 Drug-induced obesity: There is an instructional note that states to use an additional code for adverse effect, if applicable, to identify the drug (T36–T50 with a fifth or sixth character 5)
- E66.2 Morbid (severe) obesity with alveolar hypoventilation
- E66.3 Overweight
- E66.8 Other obesity
- E66.9 Obesity, unspecified

There are instructional notes at the beginning of the category that state to code first obesity complicating pregnancy, childbirth, and the puerperium, if applicable (O99.21-), and to use an additional code to identify the body mass index (BMI), if known (Z68.-).

The body mass index codes are in category Z68. There are codes for adult BMI and codes for pediatric BMI. The adult codes are based on the numerical scale (eg, 28.0–28.9) and the pediatric scale is based on the percentile for age range (eg, 5th percentile to less than 85th percentile). There is an important note in this section regarding definition of adult and pediatric. The note states that

BMI adult codes are for use for persons 21 years of age or older and the pediatric codes are for use for persons 2–20 years of age. Care should be taken in assigning the BMI codes due to this fact.

EXAMPLE

Subjective: A 49-year-old woman presented for weight loss treatment. She has attempted to lose weight through a variety of diets but has had no meaningful success. She states that she "loves food" and particularly is "addicted to sweets."

Objective: On exam, she was 64 inches tall and weighed 230 pounds, yielding a body mass index (BMI) of 39.5.

Assessment: Severe obesity due to excessive caloric intake

E66.01 Morbid (severe) obesity due to excessive calories

Z68.39 Body mass index (BMI) 39.0-39.39, adult

Advanced Coding for Conditions for Diseases of the Ear and Mastoid Process

In ICD-10-CM, codes for diseases of the ear and mastoid process are located in chapter 8. Otitis media will be covered here.

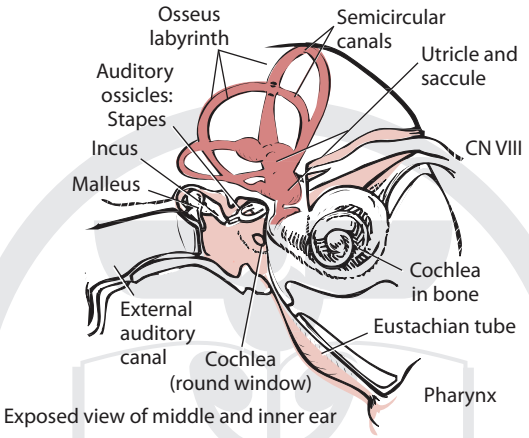
Otitis Media

The ear has three main portions: the external, the middle, and the inner. The outer ear is also called the pinna or the auricles. It is a funnel of cartilage attached to the outside of the head and helps to collect sound vibrations near the opening of the ear. It assists in directing the sound waves into the external auditory canal in the external ear. The external auditory canal (EAC) or external auditory meatus (EAM) is the second portion of the external ear and is an air-filled, S-shaped, passageway connected to the tympanic membrane (TM) about one inch in length. It amplifies the sound waves, contains natural acidity that helps protect the ear against infection, and secretes cerumen to protect the canal against drying out.

The middle ear is made up of the tympanic membrane (TM), auditory ossicles, middle ear cavity, and the Eustachian tube. The tympanic membrane, also called the ear drum, is a thin, tough, flexible, fibrous membrane that is attached to the EAC. It is grey, cone shaped, and rests at a 90-degree angle into the middle ear cavity. When the sound waves from the EAC reach the tympanic membrane, they cause it to vibrate. The tympanic membrane reproduces frequency and a form of sound waves. The auditory ossicles are the three bones in the ear and the smallest bones in the human body: the malleus (hammer), the incus (anvil), and the stapes (stirrup). Together, they form the mechanical linkage between the tympanic membrane and the inner ear. They deliver sound vibrations to the inner ear fluids and amplify airborne sound. The Eustachian tube connects the middle ear with the back of the nasal cavity and is normally closed unless a person is swallowing or yawning. It equalizes air pressure inside and outside the tympanic membrane and allows drainage of middle ear secretions.

The inner ear is made up of the oval window, round window, cochlea, and semicircular canals. The oval window is a membrane that connects the middle ear with the upper half of the cochlea. The footplate of the stapes fits within the oval window and moves in and out with a pumping action.

Vibrations from the ossicles are transferred to the cochlea by the action of the stapedial footplate in the oval window. The round window is a membrane that connects the middle ear with the lower half of the cochlea. It aids fluid motions within the cochlea and serves to equalize the hydraulic pressure. The cochlea is a bony, spiral-shaped, pea-sized cavity coiled two and-a-half times, resembling a snail shell. It is filled with fluid and divided into three sections; the lower channel, middle channel, and upper channel. The organ of Corti is in the center of the cochlea and contains 15,000 to 20,000 microscopic hairs. It converts stimulus into nerve impulses for transmission to the brain.



Otitis media (H65–H67) is inflammation or infection in the middle ear. Infections may be caused by viruses or bacteria. The most common bacterial pathogens are Pseudomonas aeruginosa and Hemophilus influenzae. The most common viruses are respiratory syncytial virus (RSV) and those that cause the common cold. Ear infections are most common in infants and young children because the Eustachian tubes are narrower and shorter than an adults'. This makes it easier for fluid to get trapped. According to the National Institutes of Health, three out of every four children experiences an ear infection by the time they are three-years-old. For many children, it is a recurrent issue with more than one third of children experiencing six or more episodes by age seven. It is the second most common disease of childhood behind upper respiratory infections.

The ICD-10-CM codes for otitis media are broken down by temporal parameters, whether the condition is recurrent, laterality, type, and whether the tympanic membrane is ruptured:

- Serous otitis media (Acute and recurrent: H65.00-H65.07; Chronic: H65.20-H65.23): Also called otitis media with effusion (OME) or secretory otitis media; is a collection of non-infected fluid in the middle ear space that may be the result of a cold, sore throat, or upper respiratory infection. As it is not infectious, antibiotics are not warranted and the condition usually resolves on its' own within four to six weeks.
- Allergic otitis media (Acute, subacute, and recurrent: H65.111-H65.119; Chronic: H65.411-H65.419): otitis media due to allergic factors.
- Other nonsuppurative otitis media (acute, subacute, and recurrent: H65.191-H65.199; Chronic: H65.491-H65.499): For acute, subacute, and recurrent, the examples include mucoid (thick, grey fluid), sanguinous (bloody effusion), and seromucinous (both serous and mucous). For chronic, examples include exudative (oozing) and seromucinous.

- Chronic mucoid otitis media (MOM) (H65.30-H65.33): Chronic otitis media with mucoid effusion. According to the National Institutes of Health, it is the leading cause of hearing loss in children.
- Suppurative otitis media without spontaneous rupture of tympanic membrane (Acute and recurrent: H66.001-H66.009): This is otitis media with the discharge of pus. The common infectious organisms are beta hemolytic streptococcus, pneumo-coccus, and staphylococcus.
- Suppurative otitis media with spontaneous rupture of tympanic membrane (Acute and recurrent H66.011-H66.019): Otitis media often results in accumulation of fluid in the middle ear, which can cause pressure to build up and cause the tympanic membrane to rupture.
- Chronic tubotympanic suppurative otitis media (H66.10-H66.13): Chronic otitis media limited to the mucosa and the anteroinferior part of the middle ear cleft. The discharge is profuse and mucopurulent.
- Chronic atticoantral suppurative otitis media (H66.20-H66.23): Chronic otitis media that spreads by erosion of the bony wall of the attic (small upper space of the middle ear, containing the head of the malleus and the body of the incus). Cholesteatoma (cystic bag-like structure line by stratified squamous epithelium on a fibrous matrix) and granulation tissue is commonly present. Surgery is usually required.

At the beginning of the code block, *Diseases of middle ear and mastoid (H65-H75)*, there are instructional notes that state to use an additional code to identify any of the following:

Associated perforated tympanic membrane (H72.-)

Exposure to environmental tobacco smoke (Z77.22)

Exposure to tobacco smoke in the perinatal period (P96.81)

History of tobacco use (Z87.891)

Occupational exposure to environmental tobacco smoke (Z57.31)

Tobacco dependence (F17.-)

Tobacco use (Z72.0)

EXAMPLE

Tony, a 3-year-old male patient, presents to be seen with his mother. He has had bilateral OM multiple times since the age of one, with significant amounts of fluid accumulation in both ears. The ear complaints are worse during allergy season. The mother now presents with the child after she and the preschool teacher noticed that he is not responding well to auditory stimuli and is having speech troubles with pronunciation of certain words. Upon exam, both ears have nonpurulent effusion noted.

Assessment: Recurrent acute allergic bilateral OM

H65.116 Acute and subacute allergic otitis media (mucoid) (sanguinous) (serous), recurrent, bilateral

EXAMPLE

Nate is a 10-month-old baby brought in by his mother. The child has been cranky, running a fever, and pulling at his left ear. The mother smokes in the house. Examination notes some pus, bulging TM, and inflammation of the left ear. Diagnosis is made of acute suppurative OM. The mother is an active cigarette smoker and admits to smoking around the child.

H66.002 Acute suppurative otitis media without spontaneous rupture of ear drum, left ear

Z77.22 Contact with and (suspected) exposure to environmental tobacco smoke (acute) (chronic)

EXAMPLE

Patient presents for tympanostomy and myringotomy tube placement. The indications for the procedure are documented as bilateral chronic serous otitis media and bilateral conductive hearing loss.

H65.23 Chronic serous otitis media, bilateral

H90.0 Conductive hearing loss, bilateral

Advanced Coding for Conditions for Diseases of the Eye and Adnexa

In ICD-10-CM, codes for diseases of the eye and adnexa are located in chapter 7. Glaucoma and cataracts will be covered here.

Glaucoma

Glaucoma is a group of diseases that can damage the eye's optic nerve and is the leading cause of blindness in the United States. The codes for glaucoma are located in categories H40-H42 in ICD-10-CM and are broken down by type, laterality (in some cases), and stage (in some cases):

- Preglaucoma, unspecified (H40.00- through H40.06-): Also called glaucoma suspect. A person with one or more risk factors which may lead to glaucoma, but currently does not have definite glaucomatous optic nerve damage or visual field defect. The codes have choices for right, left, bilateral, and unspecified.
- Primary open angle glaucoma (H40.11-): This is the most common form of glaucoma that occurs mainly in people over the age of 50. There are no symptoms with primary open-angle glaucoma. It occurs when the eye's drainage canals become clogged over time, causing the intraocular pressure (IOP) to rise. There is no laterality to this code.
- Low-tension glaucoma (H40.12-): Also called normal-pressure glaucoma. The optic nerve is damaged even though the pressure in the eye is not very high. The codes have choices for right, left, bilateral, and unspecified.
- Pigmentary glaucoma (H40.13-): This type of glaucoma occurs when extra material is produced and shed off internal eye structures and blocks the meshwork, slowing fluid drainage. The codes have choices for right, left, bilateral, and unspecified.
- Capsular glaucoma with pseudoexfoliation of lens (H40.14-): Deposits in all parts of the eye, including the lens capsule, of a material derived from basement membranes, eventually

clogging the trabecular meshwork, obstructing the outflow of aqueous humor from the eye, causing glaucoma. The codes have choices for right, left, bilateral, and unspecified.

- Residual stage of open-angle glaucoma (H40.15-): The codes have choices for right, left, bilateral, and unspecified.
- Acute angle-closure glaucoma (H40.21-): This type of glaucoma is caused by a blocked drainage canals, which results in sudden, severe, and painful rise in intraocular pressure. The codes have choices for right, left, bilateral, and unspecified.
- Chronic angle-closure glaucoma (H40.22-): this form of angle-closure occurs over time and not suddenly. The codes have choices for right, left, bilateral, and unspecified.
- Intermittent angle-closure glaucoma (H40.23-): A patient with intermittent episodes of angle closure that resolve between attacks. The codes have choices for right, left, bilateral, and unspecified.
- Residual stage of angle-closure glaucoma (H40.24-): The codes have choices for right, left, bilateral, and unspecified.
- Glaucoma secondary to eye trauma (H40.3-): There is an instructional note indicating to code also the underlying condition. The codes have choices for right, left, bilateral, and unspecified.
- Glaucoma secondary to eye inflammation (H40.4-): There is an instructional note indicating to code also the underlying condition. The codes have choices for right, left, bilateral, and unspecified.
- Glaucoma secondary to other eye disorders (H40.5-): There is an instructional note indicating to code also the underlying condition. The codes have choices for right, left, bilateral, and unspecified.
- Glaucoma secondary to drugs (H40.6-): There is an instructional note to use an additional code for adverse effect, if applicable, to identify the drug (T36-T50 with fifth or sixth character 5)
- Other glaucoma (H40.8-): Includes glaucoma with increased episcleral venous pressure, hypersecretive glaucoma, and aqueous misdirection. The codes have choices for right, left, bilateral, and unspecified.Glaucoma in diseases classified elsewhere (H42): There is an instructional note that states to code first the underlying condition, such as:
  - ☐ Amyloidosis (E85.-)
  - ☐ Aniridia (Q13.1)
  - ☐ Lowe's syndrome (E72.03)
  - ☐ Reiger's anomaly (Q13.81)
  - ☐ Specified metabolic disorder (E70-E88)

Some subcategories in the glaucoma code block require 7th character extenders to indicate the stage of glaucoma. The 7th character extenders are as follows:

0 Stage unspecified

1 Mild stage

2 Moderate stage

3 Severe stage

4 Indeterminate stage

The 7th character extenders are applicable to the following subcategories:

H40.10, H40.11, H40.12-, H40.13-, H40.14-, H40.20, H40.22-, H40.3-, H40.4-, H40.5-, and H40.6-.

Some codes will require the use of the dummy placeholder X's. For example, code H40.61X3 is reported for glaucoma secondary to drugs, right eye, severe stage.

EXAMPLE

A patient has bilateral intermittent angle-closure glaucoma.

H40.233 Intermittent angle-closure glaucoma, bilateral

This exemplifies the guideline (I.C.7.3) that states when a patient has bilateral glaucoma and each eye is documented as having a different type or stage, and the classification distinguishes laterality, assign the appropriate code for each eye rather than the code for bilateral glaucoma.

EXAMPLE

A patient has severe primary angle-closure glaucoma in the right eye and moderate open-angle glaucoma in the left eye.

H40.20X3 Unspecified primary angle-closure glaucoma, severe stage

H40.10X2 Unspecified open-angle glaucoma, moderate stage

This exemplifies the guideline (I.C.7.3) that states when a patient has bilateral glaucoma and each eye is documented as having a different type, and the classification does not distinguish laterality, assign one code for each type of glaucoma with the appropriate seventh character for the stage.

Cataracts

A cataract is a clouding of the normally clear lens of the eye. For a person with a cataract, it is like looking through a frosty or fogged-up window, making it more difficult to read, drive, or see clearly. Most cataracts develop slowly over time and usually affect both eyes.

The codes for cataracts are located in categories H25 and H26 in ICD-10-CM. Some of the descriptors are different in ICD-10-CM for cataracts. Instead of senile cataract, ICD-10-CM uses the verbiage age-related. Instead of hypermature cataracts, ICD-10-CM uses the verbiage morganian. The descriptor pre-senile has been removed and ICD-10-CM uses only infantile and juvenile. The codes for cataracts are broken down by type and laterality:

- Age-related incipient cataract – H25.0- subcategory:
  - ☐ Cortical age-related cataract (H25.01-): The most common senile cataract; white, wedgelike opacities are like spokes around the periphery of the cortex. The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Anterior subcapsular polar age-related cataract (H25.03-): Cataract at the center of the anterior pole of the lens. The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Posterior subcapsular polar age-related cataract (H25.04-): Cataract at the center of the posterior pole of the lens. The codes have choices for right, left, bilateral, and unspecified.

- ☐ Other age-related incipient cataract (H25.09-): These include coronary age-related cataracts, punctate age-related cataracts, and water clefts. The codes have choices for right, left, bilateral, and unspecified.

- Age-related nuclear cataract – (H25.1-): Cataracts in which the opacity is in the central nucleus of the eye. The codes have choices for right, left, bilateral, and unspecified.
- Age-related cataract, morganian type (H25.2-): This is a mature cataract in which the cortex has liquefied and the nucleus moves freely within the lens. The codes have choices for right, left, bilateral, and unspecified.
- Combined forms of age-related cataract (H25.81-): The codes have choices for right, left, bilateral, and unspecified.
- Other age-related cataract (H25.89)
- Infantile and juvenile cataract—H26.0- subcategory:
  - ☐ Infantile and juvenile cortical, lamellar, or zonular cataract (H26.01-): Either cortical (defined above) and/or lamellar/zonal (cataract affecting only certain layers between the cortex and nucleus of the lens. The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Infantile and juvenile nuclear cataract (H26.03-): The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Anterior subcapsular polar infantile and juvenile cataract (H26.04-): The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Posterior subcapsular polar infantile and juvenile cataract (H26.05-): The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Combined forms of infantile and juvenile cataract (H26.06-): The codes have choices for right, left, bilateral, and unspecified.
- Traumatic cataract – H26.1- subcategory: Cataracts due to injury to the eye.
  - ☐ Localized traumatic opacities (H26.11): The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Partially resolved traumatic cataract (H26.12-): The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Total traumatic cataract (H26.13-): The codes have choices for right, left, bilateral, and unspecified.
- Complicated cataract – H26.2- subcategory:
  - ☐ Cataract with neovascularization (H26.21-): There is an instructional note that states to code also the associated condition, such as chronic iridocyclitis (H20.1-). The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Cataract secondary to ocular disorders (H26.22-): There is an instructional note that states to code also the associated ocular disorder. The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Glaucomatous flecks (subcapsular) (H26.23-): Spots on the lens of the eye (also called glaukimflecken). The codes have choices for right, left, bilateral, and unspecified.
- Drug-induced cataract (H26.3-): There is an instructional note that states to use an additional code for the adverse effect, if applicable, to identify the drug. The codes have choices for right, left, bilateral, and unspecified.

- Secondary cataract – H26.4- subcategory:
  - ☐ Soemmering's ring (H26.41-): Doughnut-shaped remnant of the lens behind the pupil, occurring after cataract surgery or secondary to traumas as a result of contact between the anterior capsule and the posterior capsule. The codes have choices for right, left, bilateral, and unspecified.
  - ☐ Other secondary cataract (H26.49-): The codes have choices for right, left, bilateral, and unspecified.
- Congenital cataract (Q12.0)

EXAMPLE

60-year-old patient presents with complaints of decreased distance acuity but near vision unaffected. After, thorough history and examination, the patient is diagnosed with age-related nuclear cataracts bilaterally.

H25.13 Age-related nuclear cataract, bilateral

EXAMPLE

A patient is seen for bilateral cataract following electrical trauma. He had progressive painless loss of vision after sustaining injury from a high voltage electric current. He has total traumatic cataracts bilaterally. Surgical options are discussed.

H26.133 Total traumatic cataract, bilateral

Advanced Coding for Conditions for Pregnancy

In ICD-10-CM, codes for pregnancy, childbirth, and the puerperium are located in chapter 15. Diabetes, preeclampsia, twins, threatened preterm labor, and delivery will be covered here.

New coding concepts for pregnancy include code selection based on trimester depending on the category, use of seventh character extenders to identify the fetus affected by a condition requiring maternal care depending on the category, and an additional code from category Z3A to report the weeks of gestation.

The trimesters are defined as follows at the beginning of Chapter 15:

- First trimester-less than 14 weeks, 0 days
- Second trimester-14 weeks, 0 days to less than 28 weeks, 0 days
- Third trimester-28 weeks, 0 days until delivery

The majority of the codes have a final character indicating the trimester of pregnancy. The trimester will not be a component of the code if the condition occurs in a specific trimester, or if it is not applicable to the condition. Codes for unspecified trimester should not be reported unless it is impossible to determine the trimester. If a patient is admitted and the length of stay crosses two trimesters, report the trimester in which the complication developed.

Codes from chapter 15 take sequencing priority over all other chapters and are only reported on the maternal record. If the patient is seen for a condition that the provider documents is not affecting pregnancy, the first listed code is the condition followed by Z33.1 *Pregnant state, incidental*.

EXAMPLE

A pregnant patient sprained her right ankle when she missed a step walking to her front door. The provider wraps the ankle with an ace bandage and instructs her to stay off her ankle. The physician documents the condition is not affecting the pregnancy.

S93.401A Sprain of unspecified ligament of the right ankle, initial encounter

Z33.1 Pregnant state, incidental

Common complications affecting pregnancy include diabetes, drug dependence, fatigue, herpes, insufficient weight gain, preeclampsia, twins, and chromosomal abnormality. Certain categories will distinguish whether the complication is pre-existing or developed as a result of the pregnancy.

Diabetes Mellitus in Pregnancy

Codes for pregnant patients with diabetes mellitus are found in category O24, *Diabetes mellitus in pregnancy, childbirth, and the puerperium*. The documentation must include the type of diabetes (Type I, Type II, gestational). When the patient has preexisting Type I or Type II diabetes, an additional code from E10 or E11 will be required to identify any manifestations. If a patient with Type II diabetes is treated with insulin, use additional code Z79.4 *Long term (current) use of insulin*. The last character for gestational diabetes codes identify how the gestational diabetes is controlled (diet, insulin, unspecified). Do not report Z79.4 *Long term (current) use of insulin* for patients with gestational diabetes because the method of control is included in the code description. The subcategories for diabetic complications with the body systems affected have already been covered in the endocrine system.

EXAMPLE

A 24 week pregnant patient with Type I diabetes develops a diabetic foot ulcer on her left heel involving breakdown of the skin.

O24.012 Pre-existing diabetes mellitus, type 1, in pregnancy, second trimester

E10.621 Type 1 diabetes mellitus with foot ulcer

L97.421 Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin

Z3A.24 24 weeks gestation of pregnancy

Preeclampsia

Preeclampsia is an abnormal condition in pregnancy that involves high blood pressure and a high level of protein in the urine. The condition will usually appear during the third trimester but can also appear earlier. Symptoms include:

- Swelling in the feet, legs, and hands
- Rapid weight gain
- Severe headaches
- Abdominal pain
- Reduced urine output
- Vomiting and nausea

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Preeclampsia can cause serious complications for the mom and the baby. Patients with preeclampsia are closely monitored.

In ICD-10-CM, codes for preeclampsia are found in category O14. The severity of the preeclampsia must be documented for accurate code selection.

The subcategories for preeclampsia include:

O14.0 Mild to moderate preeclampsia

O14.1 Severe preeclampsia

O14.2 Hemolysis, elevated liver enzymes and low platelet count (HELLP) syndrome

O14.9 Unspecified preeclampsia

EXAMPLE

A patient 29 weeks pregnant complains of excessive swelling in her feet. Her blood pressure is high and her urine shows high levels of protein. The patient is diagnosed with mild preeclampsia.

O14.03 Mild to moderate preeclampsia, third trimester

Z3A.29 29 weeks gestation of pregnancy

Twins

Multiple gestations are becoming more common. The documentation must include the number of gestations (single, twins, triplets, quadruplets, sextuplets, other). For multiple gestations, the documentation must also include the number of amniotic sacs and the number of placentae. Monochorionic means the fetuses share the same placenta. Monoamniotic means the fetus share the same amniotic sac. Dichorionic means each fetus has its own chorionic and amniotic sac.

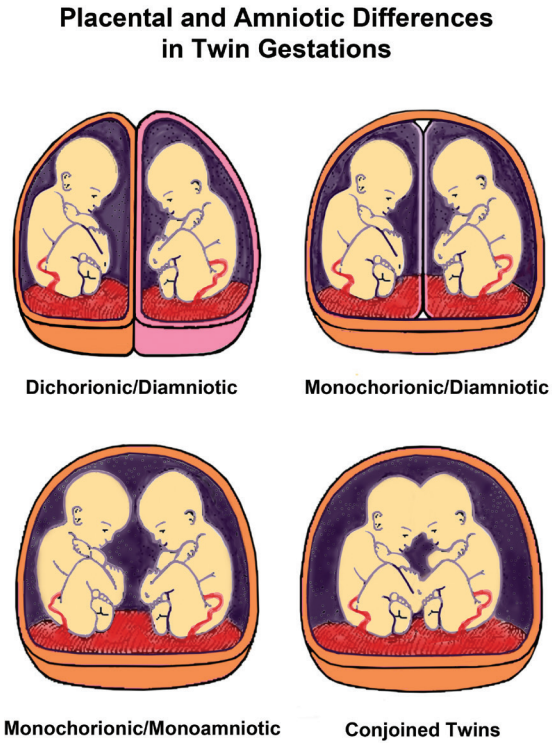
In ICD-10-CM, codes for multiple gestations are found in category O30 and codes specific to complications of multiple gestations are found in category O31. A seventh character is required for codes in category O31 to identify the fetus for which the code applies. Seventh character 0 is reported for a single gestation or multiple gestations where the fetus is unspecified.

EXAMPLE

A patient 16 weeks pregnant with triplets comes to the office for her routine OB appointment.

O30.102 Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester

Z3A.16 16 weeks gestation of pregnancy



Threatened Preterm Labor

Threatened preterm labor is the presence of uterine contractions of sufficient frequency and intensity to effect progressive effacement and dilation of the cervix prior to term gestation (between 20 and 37 weeks). In ICD-10-CM, the documentation must include the trimester of the pregnancy to select the most specific code. An additional code from category Z3A is reported to identify the number of weeks of gestation, just as with all other codes from chapter 15.

The codes for threatened preterm labor are as follows:

- O47.00 False labor before 37 completed weeks of gestation, unspecified trimester
- O47.02 False labor before 37 completed weeks of gestation, second trimester
- O47.03 False labor before 37 completed weeks of gestation, third trimester

EXAMPLE

A woman at 32 weeks gestation presents with threatened preterm labor. She is admitted and given tocolytic drugs.

O47.03 False labor before 37 completed weeks of gestation, third trimester

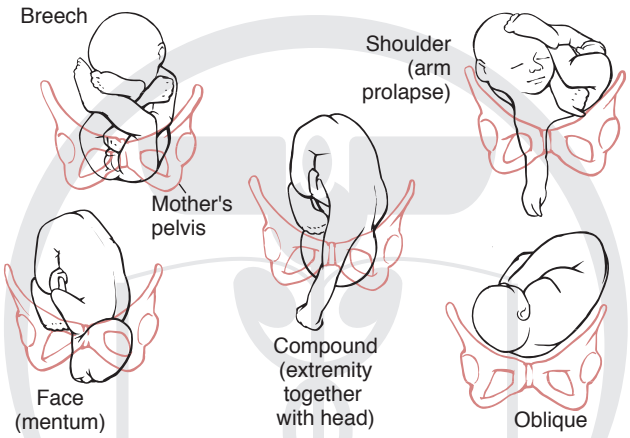
Z3A.32 32 weeks gestation of pregnancy

Delivery

When a delivery occurs, select the principal code based on the circumstances of the delivery. In ICD-10-CM, the codes are categorized by type (cesarean, breech, normal) and complications (eg, arrested inertia, malposition, preeclampsia, diabetes, hemorrhage, failed induction, laceration).

When a delivery involves multiple complications, select a code for each complication. In some categories, the trimester of the pregnancy will need to be indicated.

An additional code from Z3A is reported to indicate the weeks of gestation. A code from category Z37 *Outcome of delivery* should be reported on the maternal chart only.



The options under the category for outcome of delivery include:

- Single Live Birth
- Single Stillbirth
- Twins, both liveborn
- Twins, one liveborn and one stillborn
- Twins, both stillborn
- Other Multiple Births, all liveborn
  - ☐ Triplets
  - ☐ Quadruplets
  - ☐ Sextuplets
  - ☐ Other multiple births
- Other Multiple Births, some liveborn
  - ☐ Triplets
  - ☐ Quadruplets
  - ☐ Sextuplets
  - ☐ Other multiple births
- Other multiple birth, all stillborn

When a delivery involves multiple complications, select a code for each complication. When an episode of care does not result in a delivery, report the complication causing the patient to be seen. Normal deliveries are reported with O80 *Encounter for full-term uncomplicated delivery*. According to the guidelines (I.C.15.n.1), code O80 should be assigned when a woman is admitted for a full-term normal delivery and delivers a single, healthy infant without any complications antepartum, during the delivery, or postpartum during the delivery episode. Code O80 is always a principal diagnosis. It is not to be used if any other code from chapter 15 is needed to describe a current complication of the antenatal, delivery or perinatal period. The guidelines further state (I.C.15.n.2) that code O80 may be used if the patient had a complication at some point during the pregnancy, but the complication is not present at the time of the admission for delivery. So, just because a patient had an issue during the pregnancy, it does not necessarily negate the use of the normal delivery code.

EXAMPLE

A pregnant patient delivers twins at 30 weeks gestation. Fetus 1 is delivered vaginally. During the delivery, fetus 2 turned into the transverse position during labor. The decision is made to perform a cesarean to deliver the second baby.

O32.2XX2 Maternal care for transverse and oblique lie, fetus 2

O60.14X1 Preterm labor third trimester with preterm delivery, third trimester, fetus 1

O60.14X2 Preterm labor third trimester with preterm delivery, third trimester, fetus 2

O30.003 Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester

Z3A.30 30 weeks of gestation of pregnancy

Z37.2 Twins, both liveborn

Advanced Coding for Conditions for Neoplasms

In ICD-10-CM, codes for neoplasms are located in chapter 2. According to the Centers for Disease Control and Prevention, the most common neoplasm in the United States is non-melanoma skin cancer, followed by lung cancer. The most common cancer among women is breast cancer and the most common cancer among men is prostate cancer. These are the conditions that will be covered here.

To properly code neoplasms, the documentation in the medical record must indicate if the neoplasm is benign, in situ, malignant, or of uncertain histologic behavior. If there is a malignancy, the secondary (metastatic) site should also be reported as it is currently with ICD-9-CM.

As in ICD-9-CM there is a separate Table of Neoplasms. The codes should be selected from the table. The guidelines in ICD-10-CM state; "If the histology (cell type) of the neoplasm is documented, that term should be referenced first, in the main section of the Index, rather than going immediately to the Neoplasm Table, in order to determine which column in the Neoplasm Table is appropriate."

An important guideline to discuss with providers is the one regarding the assignment of a code for a current malignancy versus a code for history of malignancy. When a primary malignancy has been excised but further treatment, such as additional surgery for the malignancy, radiation

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therapy or chemotherapy is directed at the site, the primary malignant code should be used until treatment is completed. This portion of the guideline is clear and does not cause many issues. If the cancer is still present, or is still being treated, it needs to be coded as still existing.

When a primary malignancy has been previously excised or eradicated from its site, there is no further treatment (of the malignancy) directed to that site, and there is no evidence of any existing primary malignancy, a code from category Z85, Personal history of malignant neoplasm, should be used to indicated the former site of the malignancy. This is an important portion of the guideline to ensure the provider understands. It seems straightforward, but many factors need to be considered in the office/facility in regards to this. How are certain drugs regarded as far as cancer is concerned (prophylactic versus treatment)? This guideline is the same as the current ICD-9-CM guidelines in reference to current malignancy versus history of malignancy.

Since some forms of cancer are prone to recur, or tend to have a familial predominance, any family or personal history of skin cancers should always be documented and reported.

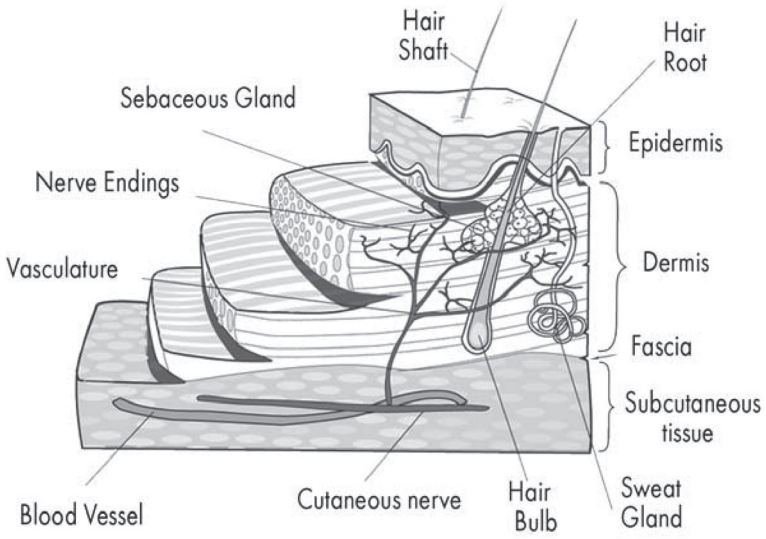
Non-Melanoma skin cancer

The skin is the largest organ system of the body. It is made up of two layers – the epidermis and the dermis. The epidermis has four to five layers that are called stratum—the Stratum Corneum, Stratum Lucidem, Stratum Granulosum, Stratum Spinosum, and Stratum Basale. The stratum basale is the layer of reproducing cells that lie at the base of the epidermis and receives its nourishment from dermal blood vessels.

The epidermis contains mostly dead cells and has no blood vessels. The basal layer of the epidermis contains melanocytes, Ih are cells that produce melanin, a dark brown pigment. The difference in people's skin color comes from the amount of melanin the melanocytes produce and distribute. The epidermis is important as it protects against water loss, mechanical injury, chemicals, and microorganisms.

The dermis has two layers (Papillary Dermis and Reticular Dermis) and lies under the epidermis. The dermis contains structures that nourish and innervate the skin. They are: nerves/nerve endings, cutaneous blood vessels, hair, nails, and glands. The dermis binds the epidermis to underlying tissues and consists of connective tissue with collagen and elastic fibers within a gel-like ground substance.

Beneath the skin is the subcutaneous tissue. It contains fat and connective tissue that houses the larger blood vessels and nerves. The subcutaneous layer assists in regulating the temperature of the skin itself and the body. The size of the subcutaneous tissue varies throughout the body and from person to person.



Non-melanoma skin cancers include basal cell carcinoma, squamous cell carcinoma, and Merkel cell carcinoma.

Basal Cell Carcinoma (BCC)

BCCs are the most common type of skin cancer, occurring in about 80 percent of cases of skin cancer. BCC begins in the basal cells, which are the cells in the epidermis that produce new skin cells as old ones die. They tend to grow slowly, and rarely metastasize. According to skincancer.org, there are an estimated 2.8 million cases of basal cell carcinoma diagnosed in the United States each year. BCCs most often occur on the sun-exposed areas of the body, especially the head and neck. Anyone with a history of sun exposure can develop BCC. The highest risk group, though, are fair skinned people, those with blond or red hair, and blue, green, or hazel eyes.

Category C44 has the codes for basal cell carcinomas. They are broken down in the same manner as the melanoma and Merkel cell carcinomas. The fifth character 1 in the code category indicates the type of carcinoma as basal cell.

EXAMPLE

C44.1**1**2 **Basal cell** carcinoma of skin of right eyelid, including canthus

C44.2**1**9 **Basal cell** carcinoma of skin of left ear and external auricular canal

EXAMPLE

70-year-old May presents with a history of basal cell carcinoma of the right thigh two years ago. She complains of 2 months of crusting on the right nasal tip. Patient with a long history of sun exposure with multiple bad sunburns. Biopsy reveals new basal cell carcinoma of the nasal tip. The patient will undergo Mohs surgery.

C44.311 Basal cell carcinoma of skin of nose

Z85.828 Personal history of other malignant neoplasm of skin

EXAMPLE

A patient presents for treatment options for his basal cell carcinoma on his left ear. He has done some research and is asking about excision, Mohs, radiation, cryosurgery, photodynamic therapy, and 5-fluorouracil. After discussion, he decides on surgical excision.

C44.219 Basal cell carcinoma of skin of left ear and external auricular canal

Squamous Cell Carcinoma (SCC)

SCCs are the second most common type of skin cancer. SCC begins in the squamous cells, which compose most of the skin's epidermis. According to skincancer.org, there are an estimated 700,000 cases of squamous cell carcinoma in the United States each year. SCCs often occur on the sun-exposed areas of the body, such as the rim of the ear, lower lip, face, bald scalp, neck, hands, arms, and legs. They can occur on all areas of the body, though, including the mucous membranes and genitals. They tend to grow and spread more than BCCs and are more likely to invade fatty tissues beneath the skin. SCCs are also more likely to metastasize to the lymph nodes or other parts of the body, although still an uncommon occurrence.

Category C44 also has the codes for squamous cell carcinomas. They are broken down in the same manner as the melanoma and Merkel cell carcinomas. The fifth character 2 in the code category indicates the type of carcinoma as squamous cell.

EXAMPLE

C44.1**2**2 **Squamous cell** carcinoma of skin of right eyelid, including canthus

C44.2**2**9 **Squamous cell** carcinoma of skin of left ear and external auricular canal

EXAMPLE

A patient returns to the dermatologist to discuss removal of his SCC on his lower lip.

C44.02 Squamous cell carcinoma of skin of lip

EXAMPLE

A patient had a suspicious lesion removed from the back of his right hand. The patient is informed that the biopsy results confirm squamous cell carcinoma.

C44.622 Squamous cell carcinoma of skin of right upper limb, including shoulder

NOTE: Many codes in the subcategories for skin cancer do not follow the laterality pattern (1=right, 2=left, 3=bilateral).

Merkel Cell Carcinoma (MCC)

MCC is a rare form of skin cancer. It develops from the neuroendocrine cells, which are hormone-making cells, in the skin. MCC is thought to be caused from sun exposure and Merkel cell polyomavirus (MCV). MCV is a common virus that usually causes no symptoms. In rare cases, changes in the virus' DNA can lead to Merkel cell carcinoma. According to merkelcell.org, there are an estimated 1,500 cases of Merkel cell carcinoma in the United States each year. Unlike basal or squamous cell carcinomas, Merkel cell carcinomas often metastasize to the lymph nodes and internal organs. They also tend to recur.

Category C44 contains codes for basal cell, squamous cell, other, and unspecified malignant neoplasms of the skin. The subcategories break down by type of malignancy, site, and laterality, when applicable. Category C4A contains codes for Merkel cell carcinoma. The subcategories break down by site and laterality, when applicable.

The subcategories and codes for C4A are as follows:

C4A.0 Merkel cell carcinoma of lip

C4A.1- Merkel cell carcinoma of eyelid, including canthus

C4A.2- Merkel cell carcinoma of ear and external auricular canal

C4A.3- Merkel cell carcinoma of other and unspecified parts of face

C4A.4 Merkel cell carcinoma of scalp and neck

C4A.5- Merkel cell carcinoma of trunk

C4A.6- Merkel cell carcinoma of upper limb, including shoulder

C4A.7- Merkel cell carcinoma of lower limb, including hip

C4A.8 Merkel cell carcinoma of overlapping sites

C4A.9 Merkel cell carcinoma, unspecified

EXAMPLE

75-year-old male patient presents with a rapidly enlarging mass near his upper lip. He is fair skinned and lives on a farm, using no sun protection other than a baseball cap. The mass has been rapidly increasing in size for the past 2 months. After diagnostic testing he is diagnosed with Merkel cell carcinoma of the peri-oral area.

C4A.39 Merkel cell carcinoma of other parts of face

Lung Cancer

Lung cancer is the second most common cancer among both men and women in the United States, but it is the leading cause of cancer death among both sexes. The number one risk factor for lung cancer is cigarette smoking. The more cigarettes smoked per day and the earlier the age of onset of smoking, the higher the risk for lung cancer.

There are two main types of lung cancer, which are named for the kinds of cells and how the cells look microscopically. Small cell carcinoma includes oat cell cancer and combined small cell carcinoma. Non-small cell cancer includes squamous cell carcinoma (also called epidermoid carcinoma), large cell carcinoma, and adenocarcinoma. The code selection in ICD-10-CM is the same regardless.

In ICD-10-CM the codes for lung cancer are broken down by morphology, site, and laterality, with the exception of code C34.2 for malignant neoplasm of middle lobe as only the right lung has a middle lobe, so further breakdown is unnecessary. The subcategories that breakdown by laterality are as follows:

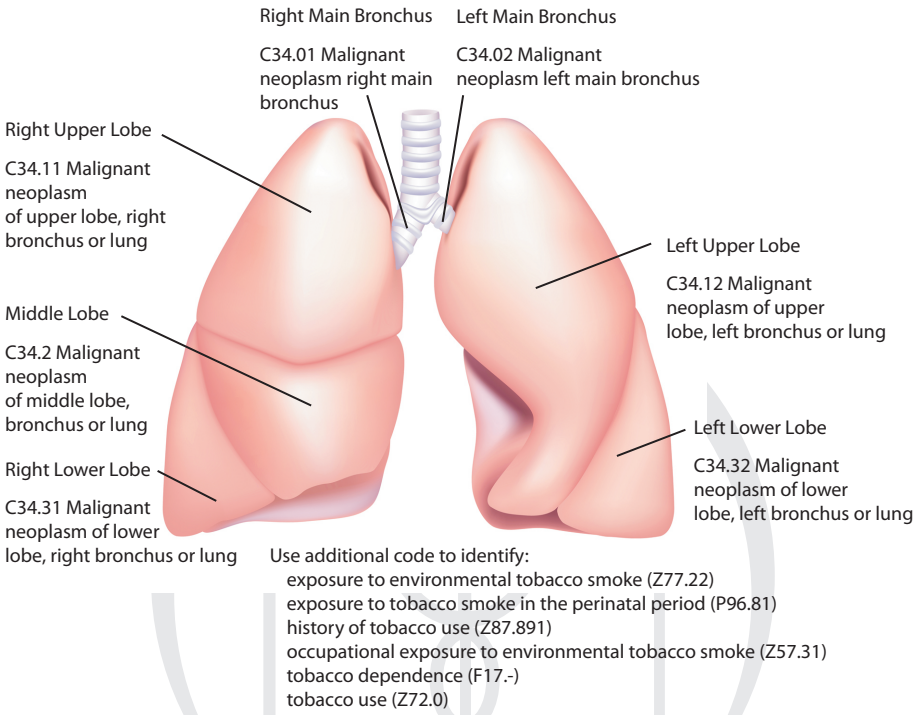
C34.0- Malignant neoplasm of main bronchus

C34.1- Malignant neoplasm of upper lobe, bronchus or lung

C34.3- Malignant neoplasm of lower lobe, bronchus or lung

C34.8- Malignant neoplasm of overlapping sites of bronchus and lung

C34.9- Malignant neoplasm of unspecified part of bronchus or lung



Source: AAPC

ICD-10-CM also contains a code for carcinoid tumor of the lung, C7A.090, which has no specific site or laterality contained within the code.

Secondary malignant neoplasms are broken down by laterality:

C78.00 Secondary malignant neoplasm of unspecified bronchus or lung

C78.01 Secondary malignant neoplasm of right bronchus or lung

C78.02 Secondary malignant neoplasm of left bronchus or lung

EXAMPLE

A patient with cancer in the lower lobe of his left lung presents for lobectomy.

C34.32 Malignant neoplasm of lower lobe, left bronchus or lung

Breast Cancer

According to the Centers for Disease Control, breast cancer is the most common cancer among women. Ductal carcinoma is the most common type of female breast cancer. Risk factors for breast cancer in women include:

- Early age menarche
- Elderly primigravida or nulligravida

- Personal or family history of breast cancer
- Inheritance of the BRCA1 or BRCA2 genes
- Radiation therapy treatment to the breast
- Taking hormones
- Taking or being a daughter of a woman who took diethylstilbestrol (DES) during pregnancy

Breast cancer may also occur in pregnant and postpartum women most often between the ages of 32 and 38. These cancers are sometimes hard to detect as women who are pregnant, nursing, or have just delivered tend to have swollen and tender breasts which may make it hard to detect small lumps.

Breast cancer in males is uncommon, making up less than one percent of all cases of breast cancer. It is usually detected in men between the ages of 60 and 70, but can occur at any age. Survival rates for men are similar to women when their stage at diagnosis is the same. Risk factors for breast cancer in men include:

- Exposure to radiation
- Having a disease linked to high levels of estrogen in the body (cirrhosis of the liver, Klinefelter syndrome, etc)
- Having several female relatives who have had breast cancer, especially with a BRCA2 gene alteration

The codes in ICD-10-CM for breast cancer are greatly expanded in relation to the codes in ICD-9-CM. The codes are still broken down by specific site (upper-outer, lower-inner, etc), but now also contain laterality and gender. In ICD-9-CM there are two codes for male breast cancer. In ICD-10-CM, for every code for female breast cancer, there is a matching code for male breast cancer.

EXAMPLES

C50.011 Malignant neoplasm of nipple and areola, **right female** breast

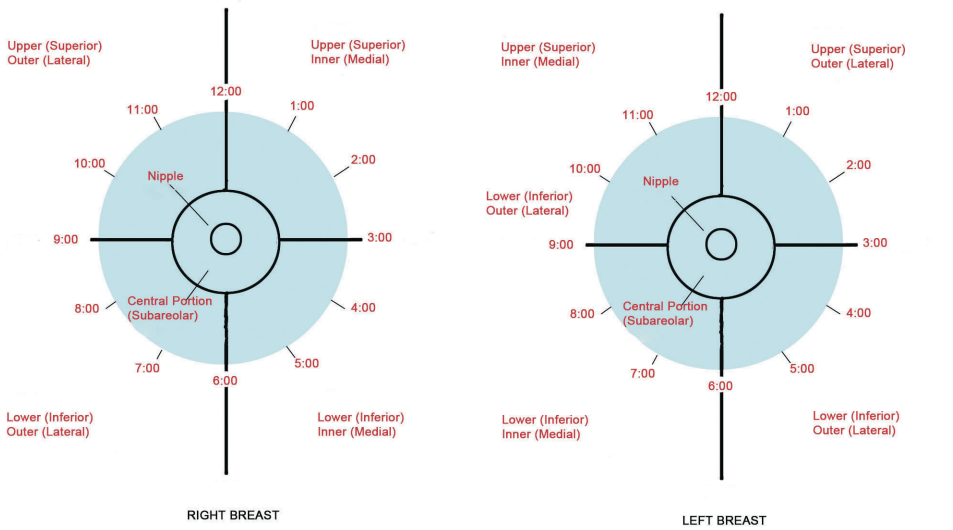
C50.021 Malignant neoplasm of nipple and areola, **right male** breast

C50.212 Malignant neoplasm of upper-inner quadrant of **left female** breast

C50.222 Malignant neoplasm of upper-inner quadrant of **left male** breast

There is also an instructional note under category C50 that states to use an additional code to identify the estrogen receptor status of the patient. If the cancer is estrogen receptor positive, it can be treated with hormone therapy, like tamoxifen and aromatase inhibitors. If the cancer is estrogen receptor negative, hormonal therapies will not be effective.

Clock and Quadrants of the Breast



EXAMPLE

A female patient with Stage IIB cancer in the lower-outer quadrant of her right breast. She is scheduled for mastectomy and is presenting for discussion of radiation and chemotherapy treatments. Her estrogen receptor status is negative.

C50.511 Malignant neoplasm of lower-outer quadrant of right female breast

Z17.1 Estrogen receptor negative status (ER-)

Cancer in pregnant patients, just as in ICD-9-CM, will have a pregnancy-related code as the first-listed code. According to the guidelines (I.C.15.a.1), codes from chapter 15 (Pregnancy, childbirth, and puerperium) have sequencing priority over codes from other chapters.

They are broken down by trimester and stage of pregnancy. The choices in ICD-10-CM include:

O9A.111 Malignant neoplasm complicating pregnancy, first trimester

O9A.112 Malignant neoplasm complicating pregnancy, second trimester

O9A.113 Malignant neoplasm complicating pregnancy, third trimester

O9A.12 Malignant neoplasm complicating childbirth

O9A.13 Malignant neoplasm complicating the puerperium

There is an instructional note under subcategory O9A.1- that states to use an additional code to identify the neoplasm. This dictates the sequencing order and follows the guidelines. A code from category Z3A, Weeks of gestation, should also be reported with any chapter 15 code.

EXAMPLE

A woman in her third trimester at 31 weeks presents for a consultation for surgical and adjuvant treatment options. She has a biopsy-proven malignancy in the central portion of her left breast.

O9A.113 Malignant neoplasm complicating pregnancy, third trimester

C50.112 Malignant neoplasm of central portion of left female breast

Z3A.31 31 weeks of gestation

The code for secondary malignant breast cancer is C79.81 *Secondary malignant neoplasm of breast*. There is no laterality or gender designation for the code.

Prostate Cancer

The prostate is a gland that surrounds the urethra. It helps make semen and is about the size of a walnut in a young male, but grows as a man ages. Prostate cancer is common in older men, but rare in men younger than 40. According to the Centers for Disease Control and Prevention, it is the most common cancer in men. Symptoms include problems passing urine, like pain, difficulty starting or stopping the stream of urine, or urine dribbling; low back pain; and pain with ejaculation. Prostate cancer is the most common in American men with one out of every 10 men to develop the disease at some point in his life.

ICD-10-CM contains a limited number of codes for cancer of the prostate:

C61 Malignant primary,

C79.82 Malignant secondary,

D07.5 Carcinoma in situ,

There are also codes in the Neoplasm Table under *Prostate* for the prostatic utricle (Latin for pouch). This is a small, epithelium-lined diverticulum near the prostate that opens into the urethra, and is a rare site for cancer. The Neoplasm Table lists code C68.0 for primary malignant neoplasm of the utricle. The descriptor of the code is malignant neoplasm of the urethra, as the utricle is not technically part of the prostate. There are also codes in the Table for the utricle (secondary, carcinoma in situ, etc) also code to the urethra.

EXAMPLE

A 64-year-old man presents for treatment options. He originally presented to his physician with increased frequency, dribbling, and nocturia. He also complained of increasing low back pain. On digital rectal exam, he was noted to have a hard nodule in the right lobe of his prostate, and his PSA was documented as 18.6. A biopsy revealed a high-grade adenocarcinoma. An MRI scan showed bony metastasis to L2 and L3.

C61 Malignant neoplasm of prostate

C79.51 Secondary malignant neoplasm of bone

Additional Coding with Neoplasms

There are many factors that may increase a patient's risk for cancer. There may also be other factors that may be present that either increase the complexity of the patient's condition, or should be reported to indicate the complete nature of the patient's case. Most of these conditions are located

in chapter 21, *Factors Influencing Health Status and Contact With Health Services*. These include:

- personal and family histories of malignancy
- acquired absence of organs (from surgical resections for cancer)
- long-term drug therapy
- encounters for/history of therapy
- estrogen receptor status
- surveillance visits after completed treatment for neoplasms
- history of smoking

The use of these additional codes assist in indicating medical necessity and complexity of the case.

EXAMPLE

A patient presents for consultation for treatment options. She has been diagnosed with breast cancer in the lower-inner quadrant of her left breast. She has a strong family history of breast cancer. Her estrogen receptor status is positive.

C50.312 Malignant neoplasm of lower-inner quadrant of left female breast

Z17.0 Estrogen receptor status positive (ER+)

Z80.3 Family history of malignant neoplasm of breast

There is an instructional note under category C50 that states to use an additional code to identify the estrogen receptor status.

EXAMPLE

Patient presents for radiation therapy for prostate cancer after prostatectomy.

Z51.0 Encounter for antineoplastic radiation therapy

C61 Malignant neoplasm of prostate

Z90.79 Acquired absence of other genital organ(s)

There is an instructional note under category Z51 that states to code also condition requiring care. Since the patient is presenting for radiation therapy, it would be listed first, followed by the prostate cancer (condition being treated), with the acquired absence of the prostate as the third code.

EXAMPLE

Julie presents with a history of right breast cancer. She had a mastectomy and chemotherapy. She is four years with no evidence of recurrence. She is seen for yearly surveillance.

Z08 Encounter for follow-up examination after completed treatment for malignant neoplasm

Z90.11 Acquired absence of right breast and nipple

Z85.3 Personal history of malignant neoplasm of breast

Z92.21 Personal history of antineoplastic chemotherapy

There are instructional notes under code Z08 that state to use an additional code to identify any acquired absence of organs and use an additional code to identify the personal history of malignant neoplasm.

Advanced Coding for Conditions for Mental, Behavioral and Neurodevelopmental Disorders

In ICD-10-CM, codes for mental, behavioral, and neurodevelopmental disorders are located in chapter 5. Mood affective disorders and mental and behavioral disorders due to psychoactive substance use are covered here.

Mood Affective Disorders

Mood or affective disorders are mental disorders that primarily affect mood and interfere with the activities of daily living. They include anxiety disorder, bipolar disorder, and depression among others.

Bipolar Disorder

Also known as manic-depressive illness, bipolar disorder affects the brain and causes unusual shifts in a person's mood, energy, and ability to function. Approximately 5.7 million American adults experience a bipolar disorder annually and it typically develops in late adolescence or early adulthood. Symptoms of bipolar disorder are severe. They are different from the normal ups and downs that everyone goes through from time to time. Bipolar disorder symptoms can result in damaged relationships, poor job or school performance, and even suicide. In ICD-10-CM bipolar disorder is coded to the category of F31. Codes are further broken down by episode type such as manic, hypomanic and depressed and then based on severity. Current severity and psychotic features are only indicated if full criteria are currently met for a manic or major depressive episode. Remission specifiers are only indicated if the full criteria are not currently met for a manic, hypomanic, or major depressive episode. Patients with periods of remission while on medications would be coded to remission.

CODING EXAMPLES

F31.11 Bipolar disorder, current episode manic without psychotic features, mild

F31.32 Bipolar disorder, current episode depressed, moderate

F31.61 Bipolar disorder, current episode mixed, mild

F31.74 Bipolar disorder, in full remission, most recent episode manic

The following criteria is defined for bipolar disorder and must meet a manic episode. The criteria has not changed from DSM-IV. The manic episode may have been preceded by and may be followed by hypomanic or major depressive episodes. A manic episode is a distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy, lasting at least one week and present most of the day, nearly every day. During the period of mood disturbance and increased energy or activity, three or more of the

symptoms listed below are present to a significant degree and represent a noticeable change from usual behavior.

- Inflated self-esteem or grandiosity
- Decreased need for sleep
- More talkative than usual or pressure to keep talking
- Flight of ideas or subjective experience that thoughts are racing
- Distractibility as represented or observed
- Increase in goal-directed activity or psychomotor agitation
- Excessive involvement in activities that have a high potential for painful consequences

The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features. The episode is not attributable to the physiological effects of a substance or to another medical condition. A full manic episode that emerges during antidepressant treatment but persists at a full syndrome level beyond the physiological effect of that treatment is sufficient evidence for a manic episode and, a bipolar I disorder.

EXAMPLE

Patient is a 39-year-old woman who, 5 weeks prior to hospitalization, began to use SAMe on a daily basis to "boost" her mood. She had an unremarkable medical history and denied any history of head injury, seizure disorder, or recent illness. She also denied the use of alcohol or illicit substances. Patient was admitted to an inpatient psychiatric unit and diagnosed with bipolar I disorder, manic, using criteria, severe. Results of all screening laboratory tests, including a complete blood count, chemistry panel, liver function, erythrocyte sedimentation rate, thyroid-stimulating hormone, rapid plasma egain, human immunodeficiency virus, urinalysis, urine drug screen, and urine pregnancy test, were within normal limits or negative. The patient stabilized on a combination of risperidone and divalproex sodium extended release within 4 days. Once stable, she mentioned that for 1 month prior to her manic episode, she had been taking SAMe, 400 mg, on a daily basis. She also related that her mother had a history of bipolar disorder.

F31.13 Bipolar disorder, current episode manic without psychotic features, severe

Hypomanic episodes are defined as a distinct period of abnormality and persistently elevated, expansive, or irritable mood and abnormality and persistently increased activity or energy, lasting at least 4 consecutive days and present most of the day, nearly every day. During the period of mood disturbance and increased energy and activity, three or more of the symptoms listed below have persisted, represent a noticeable change from usual behavior and have been present to a significant degree.

- Inflated self-esteem or grandiosity
- Decreased need for sleep
- More talkative than usual or pressure to keep talking
- Flight of ideas or subjective experience that thoughts are racing
- Increase in goal-directed activity or psychomotor agitation
- Excessive involvement in activities that have high potential for painful consequences

The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic. The disturbance in mood and the change in functioning is noticeable by others. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization. If there are psychotic features, the episode is, by definition, manic. The episode is not attributable to the physiological effects of a substance.

EXAMPLE

A 40-year-old-male with a history of TBI and BPAD I who presented in the custody of the Police Department after his girlfriend called them due to her concern that he was in a manic state since discontinuation of Abilify. She observed pressured and disorganized speech, impaired sleep, hyperreligiosity, and engagement in impulsive and reckless behaviors prior to admission including promiscuity. He initially appeared manic and disorganized on the unit; however, he has improved since admission in his organization. He now is hypomanic.

He does not accept the diagnosis of bipolar disorder; however, he does accept that periods of stress lead to mood stability, which is a part of the bipolar diagnosis. He is willing to consider treatment and was started on a low-dose trial of Risperidone, which will continue through the weekend. We expect to raise this dose as tolerated, with awareness of his reticence to take medications and need to do this slowly.

Diagnosis: Axis 1: BPAD I, severe, current episode hypomanic

F31.0 Bipolar disorder, current episode hypomanic

Major depressive episodes are defined as five or more of the symptoms listed below that have been present during the same two week period and represent a change from previous functioning and at least one of the symptoms is depressed mood or loss of interest or pleasure.

- Depressed mood most of the day, nearly every day
- Markedly diminished interest or pleasure in all or almost all activities
- Significant weight loss when not dieting or weight gain or change in appetite
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day
- Fatigue or loss of energy nearly every day
- Diminished ability to think or concentrate, or indecisiveness
- Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. The episode is not attributable to the physiological effects of a substance or another medical condition.

EXAMPLE

Divorced male with a history of bipolar I disorder, who presents with depression and suicidal ideation with a plan to hang himself. Despite losing over 300 pounds and avoiding the amputation of his leg from diabetes, the patient has suffered from significant depression since his gastric bypass surgery 3 years ago, due to multiple stressors. The pain, the continued weight loss, and his gastrointestinal side effects have caused the patient to become suicidal as he feels that he cannot continue living like this. Current level of depression and suicidal ideation requires inpatient admission for safety and stabilization. His level of intensity in requesting medications suggests some level of dependence. Similar presentation as last admission when he began as fairly antagonistic then improved. Improving rapport with team which bodes well for the rest of his stay.

Diagnosis: Axis 1: Bipolar I disorder, most recent episode depressed, without psychotic features

F31.4 Bipolar disorder, current episode depressed, severe, without psychotic features.

Bipolar II Disorder

Bipolar II Disorder is defined by a pattern of depressive episodes shifting back and forth with hypomanic episodes, but no full-blown manic or mixed episodes. Bipolar II is less severe than bipolar I disorder.

EXAMPLE

Shelly is a 20-year-old sophomore at a small college. For the past five days she has gone without any sleep whatsoever and she has spent this time in a heightened state of activity which she herself describes as "out of control." For the most part, her behavior is characterized by strange and grandiose ideas that often take on a mystical or sexual tone. Some of Shelly's bizarre thinking centers on the political, such as believing that she had somehow switched souls with the senior senator from her state. From what she believed were his thoughts and memories, she developed six theories of government that would allow her to single-handedly save the world from nuclear destruction. She went around campus, explaining these theories to friends and even to her professors and began to campaign for an elected position in the U.S. government. She feels that her recent experiences with switching souls with the senator would make her particularly well suited for a high position in government; perhaps even the presidency.

Shelly often worries that she will forget some of her thoughts and has begun writing notes to herself everywhere; in her notebooks, on her computer—even on the walls of her dorm room. Shelly's family and friends, who have always known her to be extremely tidy and organized, have been shocked to find her room in total disarray with frantic and incoherent messages written all over the walls and furniture. These messages reflect her disorganized, grandiose thinking about spiritual and sexual themes.

Shelly has experienced two previous episodes of wild and bizarre behavior similar to what she is experiencing now; both alternated with periods of intense depression. When she was in the depressed state, she could not bring herself to attend classes or any campus activities; she suffered from insomnia, poor appetite, and difficulty concentrating. At the lowest points of the depressive side of her disorder, Shelly contemplated suicide. At the present time she is moderately depressed and not demonstrating any psychotic behavior.

F31.32 Bipolar disorder, current episode depressed, moderate

A distinct period of abnormally and persistently increased activity or energy lasting at least 4 consecutive days and present for most of the day, nearly every day. During the periods of mood disturbances and increased energy and activity, represent a noticeable change from usual behavior, and have been present to a significant degree.

- Inflated self-esteem or grandiosity
- Decreased need for sleep
- More talkative than usual
- Flight of ideas or subjective experience that thoughts are racing
- Distractibility
- Increase in goal-directed activity
- Excessive involvement in activities that have a high potential for painful consequences

The episode is associated with change in functioning that is uncharacteristic when not symptomatic. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization and the episode is not attributable to the physiological effects of a substance.

Five or more of the symptoms listed below must be present for the same 2-week period and represent a change in functioning. At least one of the symptoms is either depressed or has loss of interest/pleasure.

- Depressed mood most of the day, nearly every day, as indicated in the subjective report or in observation made by others
- Markedly diminished interest in pleasure in all, or almost all, activities most of the day and nearly every day
- Significant weight loss when not dieting or weight gain, for example, more than 5 percent of body weight in a month or changes in appetite nearly every day
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day
- Fatigue or loss of energy nearly every day
- Feelings of worthlessness or excessive or inappropriate guilt
- Diminished ability to think or concentrate, or indecisiveness nearly every day
- Recurrent thoughts of death

These symptoms will cause clinically significant distress or impairment in social or work conditions or other areas of functioning. In determining grief from a major depressive disorder it is important to consider the predominant effect of feelings of emptiness and loss, while in a major depressive disorder it is a depressed mood and the inability to anticipate happiness or pleasure. Grief is likely to decrease in intensity over time or come in waves.

For a diagnosis of bipolar II disorder the criteria have been met for at least one hypomanic episode and at least one major depressive disorder and there has never been a manic episode. There is only one diagnosis code for bipolar II disorder in ICD-10-CM. Even though current severity, presence of psychotic features or other specifiers cannot be captured in the coding it should be well documented. From a coding standpoint, documentation that includes the additional specifiers would not be coded separately from the bipolar II disorder code. The code for bipolar II disorder is F31.81.

Major Depressive Disorder

Depression is a medical illness that causes a persistent feeling of sadness and loss of interest. Depression can cause physical symptoms, too. Also called major depression, major depressive disorder and clinical depression, it affects how a person feels, thinks and behaves. Depression can lead to a variety of emotional and physical problems. Major Depressive Disorder is the leading cause of disability in the U.S. for ages 15–44 and affects approximately 14.8 million adults. The median age of onset is 32½ years of age and is more prevalent in females.

Some studies have indicated that up to half of the population will experience changes in mood that meet the DSM-V criteria for a major depressive episode at some time during their lives making the diagnostic statement inflated from loose definitions. The DSM-V committee has attempted to modify the criteria, warning providers to not diagnose major depression if grief, even if prolonged, accounts for symptoms.

Major depressive disorder is coded to the category of F32 in ICD-10-CM. It is divided by single episode, recurrent, in remission, or in partial remission. The severity of the major depression as well such as mild, moderate or severe and with or without psychotic features is also part of the code selections.

According to the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V), five or more of the symptoms listed below must be present during the same 2-week time period that represents changes in functioning. At least one symptom is either a depressed mood or loss of interest.

- Depressed mood most of the day, nearly every day, as indicated in the subjective report or in observation made by others
- Markedly diminished interest in pleasure in all, or almost all, activities most of the day and nearly every day
- Significant weight loss when not dieting or weight gain, for example, more than 5 percent of body weight in a month or changes in appetite nearly every day
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day
- Fatigue or loss of energy nearly every day
- Feelings of worthlessness or excessive or inappropriate guilt
- Diminished ability to think or concentrate, or indecisiveness nearly every day
- Recurrent thoughts of death

These symptoms will cause clinically significant distress or impairment in social or work conditions or other areas of functioning. In determining grief from a major depressive disorder it is important to consider the predominant effect of feelings of emptiness and loss, while in a major depressive disorder it is a depressed mood and the inability to anticipate happiness or pleasure. Grief is likely to decrease in intensity over time or come in waves. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders. Remission specifiers are only indicated if the full criteria have not currently been met for a major depressive disorder. For an episode to be considered recurrent there must be an interval of at least two consecutive months between separate episodes where the criteria was not met for major depressive episode.

EXAMPLE

Jessica is a 17-year-old, white female admitted to the hospital because of active suicidal ideations manifested by holding a knife to her arm that morning. This was accompanied by thoughts of hanging herself by wrapping a telephone cord around her neck. Jessica has a history of suicidal ideation and has tried to cut herself in the past, but reported that the knife would not penetrate her skin. She was concerned that she would not be able to stop herself again.

Jessica reported depression for the past 2 years and an obsession with death since 8th grade. She is an obese female who appeared sad, making poor eye contact and demonstrating poor social skills. Her affect was flat and apathetic. Jessica reported difficulty sleeping, decreased energy, irritable mood and trouble with her appetite. She also reported significant feelings of worthlessness, helplessness and hopelessness.

In addition to the above symptoms, Jessica spoke about her imaginary friends, which she has had since 6 years of age. The characters are from television and movies, and she acts out their voices and argues with them. She recognizes that they are not real, but she will avoid her friends to spend time with her imaginary ones. She reported one auditory hallucination, a week before her admission, as a voice telling her to get out of bed to feel better.

F33.3 Major depressive disorder, recurrent, severe with psychotic features

EXAMPLE

Melanie is a 41-year-old woman who presents to the mental health clinic with symptoms of difficulty concentrating, problems sleeping, and complaints of having a "jumpy" feeling all the time. Melanie works as an accountant and states that she is seeking help, because these symptoms are interfering with her ability to perform her work. Further interviewing reveals that in addition to having difficulty sleeping, a loss of cognitive abilities, and agitated behaviors, Melanie also has experienced a loss of appetite, weight change with no intentional change in diet, and a loss of interest in activities she used to enjoy. Melanie states that she has experienced the majority of these symptoms for the last month. Melanie states that this is the first time she has ever felt this "bad," and it is a "constant struggle" to do daily activities like getting out of bed, bathing, and eating. When asked how her culture has impacted her life, Melanie explains that her culture and religious beliefs do not allow for suicide, and that she would never think of taking her own life. Melanie's interview revealed no other cause for these symptoms and she denies having had a traumatic event within the past six months and has had no episode of mourning within the past year. Melanie appears very motivated to get well, stating that she will "do whatever it takes to feel good again." Melanie is experiencing a first, single major mild depressive episode.

F32.0 Major depressive disorder, single episode, mild

Persistent Mood (Affective) Disorders

Cyclothymic disorder is a mild form of bipolar disorder (manic depressive illness) in which a person has mood swings over a period of years that go from mild depression to emotional highs. People with cyclothymic disorder have milder symptoms than in full-blown bipolar disorder. In ICD-10-CM cyclothymic disorder is coded to F34.0. According to the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) the patient has been experiencing for at least two-years numerous periods with hypomanic symptoms that do not meet the criteria for a hypomanic episode and numerous periods with depressive symptoms that do not meet the criteria for a major depressive episode. During that two-year period, the hypomanic

and depressive periods have been present for at least half the time and the individual has not been without the symptoms for more than two-months at a time. The criteria for a major depressive, manic, or hypomanic episode have been met.

EXAMPLE

The woman, a 29-year-old junior ad executive, complained of chronic feelings of depression since the age of 16 or 17. Despite doing well in college, she brooded about how other people were "genuinely intelligent." She felt she could never pursue a man she might be interested in dating because she felt inferior and intimidated. Although she had extensive therapy through college and graduate school, she could never recall a time during those years when she did not feel somewhat depressed. She got married shortly after college graduation to the man she was dating at the time, although she didn't think that he was anything "special." She just felt she needed to have a husband for companionship, and he was available. But they soon began to quarrel, and she's lately begun to feel that marrying him was a mistake. She has had difficulties at work, turning in "slipshod" work and never seeking anything more than what was basically required of her and showing little initiative. Although she dreams of acquiring status and money, she doesn't expect that she or her husband will rise in their professions because they lack "connections." Her husband's friends and their spouses dominate her social life, and she doesn't think that other women would find her interesting or impressive. She lacks interest in life in general and expresses dissatisfaction with all facets of her life—her marriage, her job, her social life.

F34.0 Cyclothymic disorder

Dysthymic disorder is a less severe form of depression. Although less extreme, dysthymic disorder causes long-lasting moodiness, and low, dark moods that invades a patient's life nearly every day for two years or more. Dysthymic disorder can occur alone or along with other psychiatric or mood disorders. As with depression, dysthymic disorder is more common in women than in men. A family history of mood disorders is not uncommon. This mood disorder tends to appear earlier than major depression, although it can begin anytime from childhood to later in life. It is estimated that up to 5 percent of the general population is affected by dysthymic disorder.

In ICD-10-CM dysthymic disorder is coded to F34.1. According to the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) the patient would be experiencing a depressed mood for most of the day, more often than not and while depressed two or more of the following criteria must be met for at least two years:

- Poor appetite or overeating
- Insomnia or hypersomnia
- Low energy or fatigue
- Low self-esteem
- Poor concentration or difficulty making decisions
- Feelings of hopelessness

During the two-year period of the disturbance, the individual has never been without the above listed symptoms and criteria for more than two-months at a time, the criteria for major depressive disorder may be continuously present for two years and there has never been a manic episode, and criteria have never been met for cyclothymic disorder.

EXAMPLE

James is a 19-year-old college student who was seeking psychotherapy because, after reading about depression in his "Introduction to Psychology" textbook, he decided that the description fit him. Despite doing quite well in his classes he complained of feeling a constant tiredness. However, along with feeling tiredness, he also felt blue, down, and hopeless. He described himself as being a loner, with a few friends but no girls, no dates, and no sexual experiences. He also had no goals and no aspirations for himself. His parents remained married but unhappily so and that was one of those open secrets. His father was a teacher but always felt unfilled and openly stated how much he hated his job. His mother, a housewife, also seemed to never have any enthusiasm for life.

It soon became clear that James never really felt loved by his parents, whose lives seemed colorless and bland. The boredom of home was broken by episodes of loud arguing between his mother and father. The issues usually centered around money and how much his mother spent for food and clothing. The fights would suddenly erupt for no apparent reason and would fill him with enormous dread. James always experienced an ill-defined sense of guilt, as though the lives of his parents would have been better had he never been born. A good student since elementary school, neither parent seemed to take any joy in his achievements and never expressed any goals they wished or hoped he would achieve. He was diagnosed with dysthymic disorder.

F34.1 Dysthymic disorder

Mental and Behavioral Disorders Due to Psychoactive Substance Use

Alcohol Related Disorders

Alcohol use disorders are medical conditions that doctors can diagnose when a patient's drinking causes distress or harm. In the United States, about 18 million people have an alcohol use disorder, classified as either alcohol dependence or alcohol abuse. The codes for alcohol related disorders are found in the category of F10.

Alcohol use disorder is a problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following that occur within a 12-month period, according to the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V).

- Alcohol is often taken in larger amounts or over a longer period than was intended
- There is a persistent desire or unsuccessful efforts to cut down or control alcohol use
- A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects
- Craving or a strong desire or urge to use alcohol
- Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home
- Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol
- Important social, occupational, or recreational activities are given up or reduced because of alcohol use

- Recurrent alcohol use in situations which it is physically hazardous
- Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol
- Tolerance as defined by:
  - ☐ A need for markedly increased amounts of alcohol to achieve intoxication or desired effect
  - ☐ A markedly diminished effect with continued use of the same amount of alcohol
- Withdrawal, as manifested by either of the following:
  - ☐ The characteristic withdrawal syndrome for alcohol
  - ☐ Alcohol is taken to relieve or avoid withdrawal symptoms

Early remission is when the full criteria for alcohol use disorder were previously met, none of the criteria for alcohol use disorder have been met for at least three-months but for less than 12-months. Sustained remission occurs after full criteria for alcohol use disorder were previously met, none of the criteria for alcohol use disorder have been met at any time during a period of 12-months or longer. For ICD-10-CM coding the code is based on current severity. In addition to the codes for the alcohol use disorder a secondary code is used to indicate the blood alcohol level if applicable. These secondary codes are found in the category of Y90.-. Mild (use) is considered the presence of 2–3 symptoms listed above, moderate (abuse) is the presence of 4–5 symptoms, and severe (dependence) is the presence of 6 or more symptoms.

EXAMPLE

Devon is a 19-year-old single male who was born in Los Angeles, California, where he still lives with his family. His dad is a sales rep and is on the road during the week. Devon states that when his dad is home on the weekend he just drinks and watches the ball games on TV. When he gets drunk he yells at everyone and throws things around the house. Mom also drinks. He started drinking and smoking when he was 13, in the eighth grade. He says it was a total drag, not that any of the other grades were any better, but all the kids were talking about high school and the classes they were going to take, and he was just trying to figure out where he was going get money for his next bottle of vodka. He has a cup of coffee in the morning before school with a shot of alcohol and that's it until at night when he'll drink 3 or 4 beers plus a few shots of vodka. On the weekends is when he really starts his drinking.

He states that when he is partying, he likes to mix things up a bit. Maybe do some tequila and whatever happens to be around. If he drinks too much he blacks out. He saw a doctor when he was 16. His parents said he was out of control. Right now, except for drinking, he doesn't take any medication. He presents to the office today clearly intoxicated. His blood alcohol level is 110 mg/100 ml. He has been previously diagnosed with alcohol dependence.

F10.220 Alcohol dependence with intoxication, uncomplicated

Y90.5 Blood alcohol level of 100–119 mg/100 ml

Opioid Related Disorders

Opioid related disorders is defined by the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) as a problematic pattern of opioid use leading to clinically significant impairment or distress that is manifested by at least two of the symptoms listed below that occur within a 12-month period.

- Opioids are often taken in larger amounts over a longer period than was intended
- There is a persistent desire or unsuccessful efforts to cut down or control opioid use
- A great deal of time is spent in activities necessary to obtain the opioid, use it or recover from its effects
- Craving or strong desire to use opioids
- Continued opioid use despite having persistent or recurrent social or interpersonal problems caused by or exacerbated by the effects of opioids
- Important social, occupational or recreational activities are given up or reduced because of opioid use
- Recurrent opioid use in situations where it is physically hazardous
- Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
- Tolerance as defined by either of the following:
  - ☐ A need for markedly increased amounts of opioids to achieve intoxication or desired effect
  - ☐ A markedly diminished effect with continued use of the same amount of an opioid
- Withdrawal as manifested by either of the following:
  - ☐ The characteristic opioid withdrawal syndrome
  - ☐ Opioids are taken to relieve or avoid withdrawal symptoms

Early remission is met after full criteria for opioid use disorder were previously met but none of the criteria for opioid use disorder have been met for at least three-months but for less than 12 months. Sustained remission is met when there is a period of 12 months or longer with none of the previous criteria met.

In ICD-10-CM if an opioid intoxication, withdrawal, or another opioid-induced mental disorder is also present, do not use the codes for opioid use disorder, instead, the comorbid opioid use disorder is indicated in the 4th character of the opioid-induced disorder code. Mild (use) is considered having the presence of 2–3 symptoms, moderate (abuse) the presence of 4–5 symptoms and severe (dependence) the presence of 6 or more symptoms.

EXAMPLE

The patient is a 26-year-old heroin addict. He has a runny nose, stomach cramps, dilated pupils, muscle spasms, chills despite the warm weather, elevated heart rate and blood pressure, and is running a slight temperature. Aside from withdrawal symptoms, he is in fairly good physical shape. He has no other adverse medical problem and no psychological problems. At first he is polite and even charming. He states he is hoping you can just give him some "meds" to tide him over until he can see his regular doctor. However, he becomes angry and threatening when he is told we may not be able to comply with his wishes. He complains about the poor service he's been given because he's an addict. He wants a bed and "meds" and states if we don't provide one for him we are forcing him to go out and steal and possibly hurt someone, or, he will probably just kill himself "because he can't go on any more in his present misery." He also states that he is truly ready to give up his addiction and turn his life around if he's just given a chance, some medication, and a bed for tonight.

F11.23 Opioid dependence with withdrawal

Nicotine Dependence

Tobacco use disorder is a problematic pattern of use leading to clinically significant impairment or distress, as manifested according to the *Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) by at least two of the symptoms listed below occurring within a 12-month timeframe.

- Tobacco is often taken in larger amounts or over a longer period than was intended
- There is a persistent desire or unsuccessful efforts to cut down or control tobacco use
- A great deal of time is spent in activities necessary to obtain or use tobacco
- Craving, or a strong desire or urge to use tobacco
- Recurrent tobacco use resulting in a failure to fulfill major role obligations at work, school, or home
- Continued tobacco use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of tobacco
- Important social, occupational, or recreational activities are given up or reduced because of tobacco use
- Recurrent tobacco use in situations in which it is physically hazardous
- Tobacco use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by tobacco
- Tolerance as defined by the following:
  - ☐ A need for markedly increased amounts of tobacco to achieve desired effect
  - ☐ A markedly diminished effect with continued use of the same amount of tobacco
- Withdrawal, as manifested by either of the following:
  - ☐ The characteristic withdrawal syndrome for tobacco
  - ☐ Tobacco is taken to relieve or avoid withdrawal symptoms

Early remission is met after full criteria for tobacco use disorder were previously met but none of the criteria for tobacco use disorder have been met for at least three months but for less than 12 months. Sustained remission is met when there is a period of 12 months or longer with none of the previous criteria met.

In ICD-10-CM if tobacco-induced sleep disorder is also present do not use the codes for tobacco use disorder. Instead, the comorbid tobacco use disorder is indicated in the 4th character of the tobacco-induced disorder code. Mild (use) is considered having the presence of 2-3 symptoms, moderate (abuse) the presence of 4-5 symptoms and severe (dependence) the presence of 6 or more symptoms.

EXAMPLE

Patient presents today with wanting help to quit smoking. She has tried before in the past but has always been unsuccessful. She has been smoking cigarettes for the past 12 years and is up to three packs a day. She is finding she cannot go longer than an hour or two without craving another cigarette and it is interfering with her work. Her husband and children have been arguing with her about smoking so much and trying to get her to quit. She smokes outside, in any weather, never bringing it into the home or her car. She has smoked in her bed when her husband is out of town, once falling asleep. The last time she tried to quit she had severe nausea and shakes. She states she really wants to quit, she knows this is starting to affect her social life and her work environment.

F17.210 Nicotine dependence, cigarettes, uncomplicated

Test Yourself—Commonly Coded

1. Patient has type 1 diabetes mellitus with bilateral diabetic cataracts. _____
   _____
2. A patient presents for chemotherapy for cancer in the upper lobe of his right lung post-lobectomy. He continues to smoke cigarettes with an over 30 year dependence. _____
   _____
3. A pregnant patient at 27 weeks is seen in consultation for cancer in the upper-outer quadrant of her left breast. _____
4. Patient has two pressure ulcers: a stage 2 ulcer on the right elbow and a stage 3 on the left elbow. _____
5. A patient presents for a checkup with hypertension, chronic diastolic congestive heart failure, and stage 2 chronic kidney disease. _____
6. A patient is seen with a diabetic right heel ulcer with necrosis into the muscle. _____
   _____
7. Matt has chewed tobacco for 25 years. He tried to quit "cold turkey" this week. He presents with withdrawal symptoms of anxiety, irritability, and anger, asking for help. _____
   _____
8. A patient presents with mild, recurrent depression. _____
9. A patient is seen in the office for chronic allergic otitis media bilaterally. _____
   _____
10. A type 1 diabetic patient presents for her OB checkup. She is at 21 weeks and doing well with her glucose regulation. _____
11. A patient presents with primary chronic gouty tophus of the left hand. _____
    _____

12. Betty, an asthmatic patient, presents to the office with shortness of breath and wheezing. She states she has been using her rescue inhaler daily, has been awakening at night with symptoms a few nights for the past two weeks, and has limits to her daily activities due to her asthma. She is diagnosed with moderate persistent asthma in acute exacerbation, given a nebulizer treatment, and prescribed inhaled steroids to be used with her current home medications.
    _____

13. A 70-year-old patient presents with a new osteoporotic fracture of the right femur.
    _____

14. After history and examination, a patient is diagnosed with primary open-angle glaucoma, mild stage in the left eye, and open angle glaucoma suspect, high risk, in the right eye with borderline findings. _____

15. A patient is seen consultation for chronic cystitis with hematuria. She has a history of repeated bouts of urinary tract infections. _____

Coding Cases

Case 1

Subjective: The patient is a 66-year-old female who presents to the clinic today for a five-month recheck on her type II diabetes mellitus, as well as mixed hyperlipidemia. As far as her diabetes she states that she only checks her blood sugars in the morning and those have all been ranging less than 100. She has not been checking any two hours after meals. Her blood pressures when she does check them have been running normal as well but she does not have any record of these present with her. No other issues or concerns.

Medications: She is on Hyzaar 50/12.5 one-half p.o. daily, coated aspirin daily, lovastatin 40 mg one-half tab p.o. daily, multivitamin daily, metformin 500 mg one tab p.o. b.i.d.; however, she has been skipping her second dose during the day.

Social History: She is a nonsmoker.

Objective:
Vital Signs: Temperature: 98.2. Pulse: 64. Respirations: 16. Blood pressure: 110/56. Weight: 169.
General: Alert and oriented x 3. No acute distress noted.
Neck: No lymphadenopathy, thyromegaly, JVD or bruits.
Lungs: Clear to auscultation.
Heart: Regular rate and rhythm without murmur or gallops present.
Musculoskeletal: She did have full range of motion of her shoulders. There is no swelling, crepitus or discoloration noted.

Medical Decision Making: Most recent hemoglobin A1c was 5.6 percent back in October 2004. Most recent lipid checks were obtained back in July 2004. We have not had this checked since that time.

Assessment:

1. Type II diabetes mellitus.
2. Mixed hyperlipidemia.

Plan: She is going to go to lab to obtain a hemoglobin A1c, BMP, lipids, CPK, liver enzymes and quantitative microalbumin.

ICD-10-CM Codes: _____

Case 2

Subjective: The daughter brings this patient in because the right ear had started draining. The patient was strongly advised to leave the hearing aid out of that ear.

Objective: Under the microscope, there is gross pus in the ear canal. It was cleaned and 5 drops of ofloxacin placed in the ear.

Assessment: Acute otitis media on the right.

Plan: Ofloxacin 5 drops b.i.d. x10 days. I also put in a prescription for Claritin 10 mg per day. The patient was advised to return in 2 weeks if the ear continued to drain. Otherwise, he will keep the appointment next month.

ICD-10-CM Codes: _____

Case 3

Jack presents with 6 weeks of nasal congestion, yellow-green sinus drainage, fatigue, and intermittent facial and head pain. His symptoms started as a post-nasal drip, and then progressed to nasal congestion with the aforementioned sinus drainage. He initially was treated with 10 days of oral clarithromycin and an extended-release guafenesin-pseudoephedrine product, with no relief. His symptoms did abate temporarily, but then returned with similar intensity.

On examination, there is again injection and erythema of the turbinates, this time with visible purulent nasal discharge. There is severe facial tenderness to percussion. The remainder of the ENT examination is within normal limits.

Acute maxillary sinusitis. The patient is switched to oral levofloxacin for 10 days and continues on the guafenesin + pseudoephedrine. Will see back in 14 days.

ICD-10-CM Codes: _____

Case 4

Chief Complaint: Right knee pain.

History of the Present Illness: The patient presents today for follow up of osteoarthritis Grade IV of the bilateral knees and flexion contracture, doing great. Physical therapy is helping. The subjective pain is on the bilateral knees right worse than left. Quality: There is no swelling, no redness, or warmth. The pain is described as aching occasionally. There is no burning. Duration: Months. Associated symptoms: Includes stiffness and weakness. There is no sleep loss and no instability.

Hip Pain: None.

Back pain: None.

Radicular type pain: None. Modifying factors: Includes weight bearing pain and pain with ambulation. There is no sitting, and no night pain. There is no pain with weather change.

Viscosupplementation in Past: No Synvisc.

VAS Pain Score: 10 bilaterally.

Review of Systems: No change.
Constitutional: Good appetite and energy. No fever. No general complaints.
HEENT: No headaches, no difficulty swallowing, no change in vision, no change in hearing.
CV - RESP: No shortness of breath at rest or with exertion. No paroxysmal nocturnal dyspnea,

orthopnea, and without significant cough, hemoptysis, or sputum. No chest pain on exertion.
GI: Clear without nausea - vomiting - and absent of diarrhea. Absent of abdominal pain. No complaints of dyspepsia. No dysphagia. No hematochezia, and no melena.
Skin: No lesions seen.
Neurological: No signs or symptoms are reported. No TIA or CVA symptoms are reported. No radicular pain is reported.

Objective: No change.
Head: Normocephalic, atraumatic, and no headaches.
Neck: Full range of motion.
Lymph nodes: No abnormalities noted.
Respiratory: Stable respiratory rate. Lung fields are clear.
Cardiovascular: Regular rate and rhythm without murmurs, gallops, or rubs
Abdomen: Non-tender, no palpable masses.
Spine w/ pelvis: Full range of motion. No spine tenderness.
Skin: No rash or lesions noted.
Neurovascular: Grossly intact.
Psycho: Awake, alert, and oriented times 4. No depression.

Knee Examination: The patient comes to the clinic today and is full weight bearing. Exam of the right knee shows neurovascular status is normal. The skin reveals a scar. Crepitance is 2, and active range of motion is 10 to 110 degrees and passive range of motion is 7 to 120 degrees. There is a flexion contracture at 10 degrees, right knee. Effusion is 0 and ligaments are normal. The meniscal signs are absent. Exam of the left knee shows neurovascular status is normal. The skin reveals a scar. Crepitance is 2, and range of motion is 5 to 120 degrees. Effusion is 0 and ligaments are normal. The meniscal signs are absent.

Diagnoses: Osteoarthritis.

Recommendations/Plan of Treatment:
1. Excellent results with physical therapy.
2. Continue physical therapy.
3. Refill pain medication on a p.r. n. basis.

ICD-10-CM Codes: _____

Case 5

Phil is coming in today for a check on his hypertension, CKD stage 3, and morbid obesity. He has a BMI of 42. He has never smoked and is negative for diabetes or proteinuria. He states he is feeling well and is working on his diet and lifestyle modifications to lose weight. His blood pressure is 145/95 (last measurement 165/102). Current weight 275 lbs (15 lb loss). His most recent labs are as follows:

Serum potassium = 4.4 mmol/litre

Serum creatinine = 260 micromol/litre

eGFR = 33 mL/minute/1.73 m2

Fasting total cholesterol = 3.4 mmol/litre

Liver function and other U + Es are normal

His medications include: lisinopril 20 mg daily, bendroflumethiazide 2.5 mg daily, simvastatin 40 mg daily.

Will continue current meds. Discussed continued weight loss measures with the patient. He states he is starting with a personal trainer this week.

ICD-10-CM code(s): _____

Case 6

History of Present Illness: The patient is here for recheck of his diastolic congestive heart failure. He is status post mechanical aortic valve replacement on 10/15/2009 for which he has been on chronic anticoagulation.

Review of Systems:
General: Unremarkable.
Cardiopulmonary: No chest pain, shortness of breath, palpitations, or dizziness.
Gastrointestinal: Unremarkable.
Musculoskeletal: Unremarkable.
Neurologic: Unremarkable.

Family History: There are no family members with coronary artery disease. His mother has congestive heart failure.

Social History: The patient is married. He lives with his wife. He is employed as a barber. He does not use alcohol, tobacco, or illicit drugs.

Allergies: None.

Physical Examination:
General: A well-appearing, obese black male.
Vital Signs: BP 140/80, HR 88, respirations 16, and afebrile.
HEENT: Grossly normal.
Neck: Normal. Thyroid, normal. Carotid, normal upstroke, no bruits.
Chest: Midline sternotomy scar.
Lungs: Clear.
Heart: PMI fifth intercostal space mid clavicular line. Normal S1 and prosthetic S2. No murmur, rub, gallop, or click.
Abdomen: Soft and nontender. No palpable mass or hepatosplenomegaly.
Extremities: Normal. No edema. Pulses bilaterally intact, carotid, radial, femoral, and dorsalis pedis.
Neurologic: Mental status, no gross cranial nerve, motor, or sensory deficits.

Impression:

1. Congestive heart failure, diastolic, chronic, stable, NYSHA class I to II.
2. Status post aortic valve replacement on 10/15/2009, on chronic anticoagulation.

ICD-10-CM Codes: _____

Case 7

Subjective—Patient is a 54-year-old male who complains of an ulcer underneath his L big toe x 3 years. States that he is a truck driver. States that he had 2 previous surgeries from another physician.

PMH—Gout, Chronic Ulcer L, HTN, Low Back pain.

Medications—Zestril, Allopurinol.

Allergies—NKDA

On Exam—Chronic ulcer with keratoma L plantar hallux and 1st MPJ area with breakdown through epidermis into dermis. Positive odor. Positive swelling L hallux. No signs of Osteomyelitis on X-ray. X-rays show a prominent osteophyte joint at L plantar hallux.

Assessment—Non healing Ulcer L plantar hallux and 1st MPJ area. Prominent osteophyte. Chronic idiopathic gout left foot. Plan - Exostectomy L hallux. Following the planned surgery, the patient's ulcer should completely heal within 5 weeks.

Goal—By removing prominent bone this will reduce pressure off the chronic ulcer an allow healing. (I used a medial incision L hallux above the ulcer, and left the ulcer alone. Keep sutures in 3 to 4 weeks to prevent a wound dehiscence.)

ICD-10-CM Codes: _____

Case 8

Preoperative Diagnosis: Prostate carcinoma.

Postoperative Diagnosis: Prostate carcinoma.

Procedure: Robotic-assisted radical prostatectomy

Anesthesia: General.

Complications: None

Drains: A 20-French Foley catheter and a 1 cm Jackson-Pratt drain in the pelvis.

Condition: Patient to recover room in stable condition.

Indications for the Procedure: The patient is a 67-year-old white male with prostate carcinoma now admitted for robotic prostatectomy. The patient understands all the risks of the procedure including bleeding, infection, bowel, vessel, bladder injury, urinary incontinence, urinary retention, erectile dysfunction and is now brought for surgery. Patient also has an umbilical hernia. We will repair this at the same time.

Procedure in Detail: Patient brought to the operating room, prepped and draped in the usual sterile fashion in the dorsal lithotomy position. A small supraumbilical incision was made. This was carried down through the skin and subcutaneous tissue. The fascia was opened. There was a large amount of omentum that was into his umbilical hernia. This was transected. The remaining part of the omentum was removed from the umbilical hernia. There was no bowel in the umbilical hernia.

Camera trocar was inserted. Da Vinci ports and working ports were placed in their standard position. Retroperitoneal space was entered by taking down the bladder flap anteriorly. Prostate was identified. The endopelvic fascia on either side of the prostate was incised. The puboprostatic ligaments were left intact. Dorsal venous complex was secured with a #1 Vicryl in a figure-of-eight fashion and tied anteriorly to help with postoperative continence. The anterior bladder neck was then transected. Foley catheter balloon was deflated and brought into field using retractor of the 4th arm. Posterior bladder neck was transected. Both ureteral orifices were set back. Seminal vesicles were dissected out to their tips and transected. Vas were cauterized and transected. Lateral pedicles of the bladder neck were taken down with clips and sharp dissection. Prostate was dissected off the rectum. The dorsal venous complex was transected. The urethra was transected, and the specimen was placed into a lap bag. Bladder neck urethral anastomosis was undertaken using a running 2-0 Monocryl after the bladder neck had been closed with a 2-0 Monocryl. JP drain was placed in the pelvis. The anastomosis was watertight. All port sites were removed under direct vision. There was no bleeding seen. The umbilical hernia site was closed with #1 Vicryl as well as the remaining part of the fascia after the lap bag was removed. Clips were placed on the skin, a sterile dressing was applied. Patient was taken to recover room in stable condition.

ICD-10-CM Codes: _____

Case 9

Patient is a 59-year-old male who presents for a recheck of Depressive Disorders. Symptoms include depressed mood, hopelessness, crying spells, fatigue, sense of failure, and poor concentration. Sudden onset and patient describes this as severe and worsening. Symptoms do not include anxiety, manic symptoms, and obsessive compulsive disorders. The patient has suicidal thoughts but has no organized plan. No homicidal thoughts or plan.

Judgment and insight is appropriate concerning matters about self, displays appropriate response to everyday activities and judgment is appropriate for social situations. The patient displays or has experienced abnormal thoughts, has thoughts of suicide. Appropriate fund of knowledge, appropriate speech, and no impairment in reasoning is observed.

Impression: Depressive Disorder; major single episode, unspecified

ICD-10-CM Codes: _____

Case 10

A 41-year-old Caucasian male is concerned about his alcohol use. He was admitted under a court commitment filed by the patient's wife. This is his first marriage, has 3 children, age 18, 8, and 5. Lives in a rented apartment in Buffalo, has lived there for 4 years. He is currently unemployed. Last employer he was working for was a street painting company.

History of Present Illness: Patient has been in chemical dependency treatment twice in the last 12 months. July 2011 he reportedly hit a pole with his car and lost his job. He has been hospitalized two times for detoxification. Seen in the ER 2 days ago, with blood alcohol of .427. The patient had a temporary restraining order placed against him this spring because he threatened to hit his wife if she would not return the vodka bottle. He has also talked about putting a gun to his head. He is

described as lying on the couch and drinking all day and all night. She reports also that he does drink and drive. The patient was in the hospital 3 weeks ago for alcohol withdrawal seizures. The patient has been falling over because of intoxication and is described as drinking between a pint and a liter of vodka daily.

The patient tends to minimize the alcohol usage when talking to him today. He reports that he cannot go into treatment, which he needs to be finding employment to support his family. The patient states that he drinks a half pint daily. He reports that he was sober for 30 days after completing the chemical dependency treatment in March; however, the history from the ER doctor was that the patient started drinking shortly after this treatment. The patient denies any illicit drug use. He does report having a DUI in high school but denies any of these difficulties as an adult. The patient denies any gambling difficulties.

In terms of mood, his mood is good—he denies sadness. He reports he is sleeping well, appetite is good. He states his main enjoyment is riding a bike and spending time with his children. He denies having any suicidal ideation and when asked about a suicide comment of putting a gun to his head, he states he never said that. The patient does not describe himself as a chronic worrier. He has no history of anxiety, no history of psychotic symptoms or paranoia. Denies any obsessive compulsive symptoms, and describes himself as "a happy drunk."

PMH: No current medications, does report a seizure thought to be alcohol withdrawal which occurred 3 days after the patient stopped drinking. The patient does have tremors when he withdraws from alcohol. He denies any history of delirium tremors, denies a history of traumatic brain injury.

Family History: No mental illness in his family, although he does report that his father had a problem with alcohol.

Social History: Alcohol use as described in HPI. The patient's major stressors, he describes, is related to his drinking as well as unemployment. He did describe some marital difficulties and conflict related to alcohol use. His major support was describes as his wife, brother, and sister.

Developmental History: The patient was born in Kansas and grew up with his mother and father. Father was a farmer. The patient has 7 sisters and 4 brothers. He is the oldest in the family. He describes his growing up years as "a lot of kids." He reports frequent conflict between his siblings. He denies history of violence in the home. He denies history of sexual abuse. He describes some attention-seeking behaviors while in elementary school. He reports his grades as Bs and Cs. He states he had no difficulty making friends, completed a high school education. He does describe some alcohol use in high school. The patient was employed by Piggly Wiggly, was a manager of the frozen food department for 20 years, leaving the job in February stating that he wanted to do something else. The patient describes his marriage as going good.

Mental Status: The patient was casually dressed and he was somewhat slow in his thought process as well as his speech. The patient is oriented to place and time. His mood is described as good. His affect was flat and somewhat anxious and mildly irritable. Speech was somewhat flat. Thought content was normal – there are no delusional thoughts. No hallucinations were noted. Insight and judgment is poor. He reported suicidal ideation. The patient did not appear a reliable historian.

Continue to monitor the patient's mental status and review the need for any psychiatric medications. The patient is to be seen by Central Human Services for an evaluation of his chemical issues. The patient has been seen by occupational therapy and will be involved in groups when able.

Diagnosis:

AXIS I

Alcohol dependence, depressive disorder

AXIS II deferred

AXIS III

Report of history of seizure secondary to alcohol withdrawal

AXIS IV

Stress relating to chronic alcohol and difficulty maintaining sobriety

Stress relating to relationship

AXIS V

Global Assessment of Functioning (GAF) 40–45

D.K.G, MD

ICD-10-CM Codes: _____

Case 11

CC: OB with gestational diabetes, here for regular prenatal visit.

HPI: Gestational diabetic at 29-3 weeks using oral medications and diet that was diagnosed two weeks ago. Patient feeling well and taking medication as prescribed, see flow sheet. Patient tries to follow diet and exercises sporadically. Patient uses OneTouch Ultra and keeps a log book. Glucose readings are in the range of 110-135. No hypoglycemic episodes. Patient to have bi-weekly NST and BPP until delivery.

Assessment:

1. Gestational Diabetes mellitus without complications; will check Hg A1c. Refills on med
2. Patient to continue bi-weekly NST and BPP until delivery.

ICD-10-CM Codes: _____

Case 12

The patient is admitted by her OB. She is a 17-year-old G1P0 at 39-2 weeks. Admitted with contractions and is quite uncomfortable. She is 4–5 cm on admission, 80 percent and -2 station. She continues to labor throughout the morning and got to 7 cm when rupture of membranes occurred spontaneously. Over the course of the next hour she progressed to complete AND +2 STATION. She was instructed on pushing, pushing effectively, and at 15:08 a spontaneous delivery was completed. The baby's nose and mouth were bulb suctioned. The baby was vigorous upon delivery and was placed on the mother's abdomen, and he was dried thoroughly. The cord was doubly clamped and cut. Cord blood was obtained. This was followed by spontaneous delivery of placenta with an eccentric insertion of a 3-vessel cord. The fundus firmed with massage and 20 units Pitocin

was added to the IV fluid. Inspection of the perineum and vaginal vault revealed no lacerations or tears. Estimated blood loss was 300 ml. This is a male infant weighing 6-13, 20 inches with Apgars of 8 and 9. Mom and baby are both stable.

ICD-10-CM Codes: _____

Case 13

This 37-year-old patient is seen for a screening Pap and pelvic gyn examination at our office today. She is an established patient and complaining of abnormal vaginal discharge for approximately three weeks. She denied any trauma. Patient is sexually active and her LMP was ten days ago. She denies any chest pain, shortness of breath, or urinary problems. Patient has Pap and pelvic exam one year ago and is requesting a Pap and pelvic exam today.

Past Medical History: Two vaginal deliveries without complications. Allergies, unknown. Medications include Micardis 80 mg for hypertension. She does not smoke or drink. She is married and lives with her husband.

Examination: Vital Signs: BP 125/70; Pulse 85, Respirations 20. Height 5' 5", Weight 135 lb. Well developed, well-nourished female in no acute distress.

HEENT: Pupils equal, round and reactive to light and accommodation. Extraocular muscles are intact:

Neck: Thyroid not palpable. No jugular distention. Carotid pulses are present bilaterally.

Breasts: Manual breast exam reveals no masses, tenderness or nipple discharge. The breasts are asymmetrical with no nipple discharge.

Abdomen: No masses or tenderness noted. No hernias appreciated. No enlargement of the liver or spleen.

Pelvic: Vaginal examination reveals no lesions or masses. Discharge is noted and a sample was collected for testing and sent to an outside laboratory for testing. No bleeding noted. Examination of the external genitalia reveals normal pubic hair distribution. The vulva appears to be within normal limits. There are no lesions noted. A speculum is inserted. There is no evidence of prolapse. The cervix appears normal. A cervical smear is obtained and will be sent to pathology. The speculum is removed and a manual pelvic examination is performed. It appears that the uterus is smooth and no masses can be felt. Rectal examination is within normal limits. Screening occult blood is negative. Uterus is not enlarged. Urethral meatus is normal. No masses noted for urethra or bladder.

Assessment and Plan: Vaginal Discharge, Routine Pap and Pelvic performed today. Patient had Pap and pelvic examination one year ago. Patient was sent to our in-house lab for blood draw today and she is to follow-up in one week for lab results.

ICD-10-CM Codes: _____

021115

Case 14

History of Present Illness: This 59-year-old white male is seen for comprehensive annual health maintenance examination. He is in excellent overall health. Medical problems include dyslipidemia well controlled with niacin, and also history of concha bullosa of the left nostril, followed by ENT associated with slight septal deviation. There are no other medical problems. He has no symptoms at this time and remains in excellent health.

Past Medical History: Otherwise noncontributory. There is no operation, serious illness or injury other than as noted above.

Allergies: There are no known allergies.

Family History: Father died at age 67 with COPD and was a heavy smoker. His mother is 88, living and well. Two brothers, living and well. One sister died at age 20 months of pneumonia.

Social History: The patient is married. Wife is living and well. He jogs or does Cross Country track 5 times a week, and weight training twice weekly. No smoking or significant alcohol intake. He is a physician.

Review of Systems: Otherwise noncontributory. He has no gastrointestinal, cardiopulmonary, genitourinary or musculoskeletal symptomatology. No symptoms other than as described above.

Physical Examination:
GENERAL: He appears alert, oriented, and in no acute distress with excellent cognitive function. VITAL SIGNS: His height is 6 feet 2 inches, weight is 181.2, blood pressure is 126/80 in the right arm, 122/78 in the left arm, pulse rate is 68 and regular, and respirations are 16. SKIN: Warm and dry. There is no pallor, cyanosis or icterus. HEENT: Tympanic membranes benign. The pharynx is benign. Nasal mucosa is intact. Pupils are round, regular, and equal, reacting equally to light and accommodation. EOM intact. Fundi reveal flat discs with clear margins. Normal vasculature. No hemorrhages, exudates or microaneurysms. No thyroid enlargement. There is no lymphadenopathy. LUNGS: Clear to percussion and auscultation. NSR. No premature beat, murmur, S3 or S4. Heart sounds are of good quality and intensity. The carotids, femorals, dorsalis pedis, and posterior tibial pulsations are brisk, equal, and active bilaterally. ABDOMEN: Benign without guarding, rigidity, tenderness, mass or organomegaly. NEUROLOGIC: Grossly intact. EXTREMITIES: Normal. GU: Genitalia normal. There are no inguinal hernias. The prostate is small, if any, normal to mildly enlarged with discrete margins, symmetrical without significant palpable abnormality. There is no rectal mass. The stool is Hemoccult negative.

Impression:
1. Comprehensive annual health maintenance examination.
2. Dyslipidemia.

Plan: At this time, continue niacin 1000 mg in the morning, 500 mg at noon, and 1000 mg in the evening; aspirin 81 mg daily; multivitamins; vitamin E 400 units daily; and vitamin C 500 mg daily. Consider adding lycopene, selenium, and flaxseed to his regimen. All appropriate labs will be obtained today. Follow-up fasting lipid profile and ALT in 6 months.

ICD-10-CM Codes: _____

Case 15

Chief Complaint: Right inguinal hernia.

History of Present Illness: This patient is a 42-year-old African American male who presents today with a chief complaint of right inguinal hernia. The patient's history is provided by the patient. The patient states that this hernia has been ongoing for approximately 1 year. The patient states that he used to work in construction. The patient states that most recently he has noticed an increase in pain in the inguinal area that radiates down to his scrotal area with coughing, sneezing, or standing. The patient states that occasionally he does hear the bowel sounds in the hernia area.

He states it has not affected his bowel regimen. He states he still has a bowel movement daily. The patient's pain is characterized as stabbing. The patient states his symptoms have no relieving factors. The patient states he has been able to lie down occasionally and reduce the hernia.

Past Medical History: None.

Past Surgical History: None.

Allergies: No known drug allergies.

Medications: None.

Family History: Mother is deceased. She had high blood pressure and stroke. Father has unknown history. He has 4 brothers.

Social History: The patient is currently unemployed. However, he does work construction when he is able to work. The patient states that he drinks a 6-pack of beer on the weekends. He states he smokes ½ pack of cigarettes a day. He denies any illicit drug use.

Review of Systems:
CONSTITUTIONAL: Otherwise negative.

EARS/NOSE/MOUTH/THROAT: Otherwise negative.

CARDIOVASCULAR: Negative.

RESPIRATORY: Negative.

GASTROINTESTINAL: Negative.

GU: Large right inguinal hernia.

MUSCULOSKELETAL: Otherwise negative.

SKIN: Otherwise negative.

NEUROLOGIC: Negative.

PSYCHIATRIC: Negative.

Physical Examination:
GENERAL: This is a 42-year-old pleasant African American male, alert and oriented x3, in no acute distress.

SKIN: Warm, dry, and intact.

HEENT: Pupils are equal, round, and reactive to light. Extraocular movements intact. Mouth and pharynx are normal. Poor dentition noted.

NECK: Full range of motion. Trachea midline, No masses. No lymphadenopathy.

HEART: Regular rate and rhythm. No murmurs, rubs, or gallops. S1, S2 normal.

CHEST: Clear to auscultation bilaterally. No wheezes, rales, or rhonchi. Unlabored. Chest symmetrical.

ABDOMEN: Soft, nondistended. Normoactive bowel sounds. No hepatosplenomegaly.

GU: Testes descended. Circumcised penis. He has a large right inguinal hernia present which is reducible.

EXTREMITIES: Moves all extremities x4. Good range of motion, 5/5 muscle strength. No cyanosis, no clubbing, no edema. Cap refill less than 3 seconds.

NEUROLOGIC: Cranial nerves 2–12 intact. Motor intact in all extremities.

PSYCHIATRIC: No abnormalities of mood or affect noted.

Assessment: Right inguinal hernia.

Plan: The patient was also examined by Dr. Thomas today. The risks and benefits of surgery were discussed with the patient, and the patient verbalized understanding. The risks of surgery are infection, bleeding, and/or death. The patient wishes at this time to proceed with the operation. We have had the patient fill out financial aid assistance papers. We have faxed them to the office. We will schedule the patient for surgery at the end of May. The patient has been instructed that he needs to wear a hernia belt. However, at this time he refuses.

ICD-10-CM Codes: _____

Case 16

Progress Note Wound Care Center

Patient is here for follow-up of her sacral pressure ulcer. It is making good progress and has gotten a lot smaller since her visit a month ago. Today's measurements are 2.8 x 1.1 x 1.3 cm. It is now at stage 2. Last measurements are 5.5 x 3.1 x 1.5 cm. The entire ulcer surface is healthy and well granulated. No debridement is required. We are going to continue the negative pressure wound therapy and see her back in one month.

ICD-10-CM Codes: _____

Case17

Complaint: Syncope.

History of Present Illness: The patient is a pleasant 74-year-old gentleman who presented to the Emergency Room today after experiencing a syncopal episode in church today. He actually had a similar syncopal episode about one week ago while climbing a ladder. He was placed under the DASH protocol by the Emergency Room physician and came in emergently to the cardiac catheterization lab. There is no evidence of significant obstructive disease in his epicardial coronary arteries and his ejection fraction was found to be normal. His presentation is suspicious for possible cardiac arrhythmias. Going to be kept overnight for monitoring now and will likely undergo electrophysiologic study by May 10th. He has no recent chest pain, left arm or jaw discomfort or any chest pain today, also denies any recent orthopnea, PND or edema. In addition, he has had no presyncope or palpitations.

Past Medical History: 1. Diabetes. 2. Hypertension. There is no history of stroke, myocardial infarction, congestive heart failure.

Social History: Negative for cigarette smoking or alcohol.

Allergies: No known drug allergies.

Medications: Glipizide, Starlix, and Lisinopril.

Review Of Systems: Negative, except as in HPI.

Physical Examination: VITAL SIGNS: Blood pressure is 132/70, heart rate is 60, respiratory rate 14, afebrile. GENERAL: Elderly male in no acute distress. EYES: Pupils equal, round, and reactive. Extraocular movements intact. ENT: Oral mucosa normal. NECK: Supple, no jugular venous distention, no carotid bruits. LUNGS: Clear. CARDIAC: Regular rate and rhythm, S1, S2. No S3 or S4 gallop. 1/VI systolic murmur left lower sternal border and diastolic murmurs heard. No rubs noted. Carotid, radial and femoral pulses palpable and symmetric. ABDOMEN: Soft. Bowel sounds present. SKIN: No rashes or lesion. LYMPHATICS: No cervical or inguinal adenopathy. MUSCULOSKELETAL: No joint tenderness or effusion. No clubbing, cyanosis or edema. NEUROLOGICAL: Nonfocal. DIAGNOSTIC DATA: Electrocardiogram, sinus rhythm, normal PR, QRS and QT intervals. No acute ischemic changes. LABORATORY DATA: White count 5.6, hemoglobin 10.9, platelets are 186,000. BUN is 27, creatinine 1.3.

Assessment: A 74-year-old gentleman with recurrent syncope, actually brought in under the DASH protocol, but with no acute myocardial infarction.

Suggestions: 1. Restart medications including Lisinopril and diabetes medication. 2. Presentation is suspicious for cardiac arrhythmia. There is no evidence of arrhythmia at this point, I am going to schedule the patient for an electrophysiologic study tomorrow by with further recommendations to follow. Chest X-ray is pending.

ICD-10-CM Codes: _____

Case 18

Subjective: The patient states that he feels sick and weak. Mike reports he has decreased urine output, increased thirst, and some dizziness.

Physical Examination:
VITAL SIGNS: Highest temperature recorded over the past 24 hours was 102.1, and current temperature is 100.2.
GENERAL: The patient looks tired.
HEENT: Oral mucosa is dry.
CHEST: Clear to auscultation. He states that he has a mild cough, not productive.
CARDIOVASCULAR: First and second heart sounds were heard. No murmur was appreciated.
ABDOMEN: Soft and nontender. Bowel sounds are positive. Murphy's sign is negative.
EXTREMITIES: There is no swelling.
NEURO: The patient is alert and oriented x 3. Examination is nonfocal.

Laboratory Data: White count is normal at 6.8, hemoglobin is 15.8, and platelets 257,000. Glucose is in the low 100s. Comprehensive metabolic panel is unremarkable. UA is negative for infection.

Assessment and Plan:

1. Fever of undetermined origin, probably viral since white count is normal. Would continue current antibiotics empirically.

2. Dehydration. Hydrate the patient.

ICD-10-CM Codes: _____

Case 19

Reason for Visit: Overactive bladder with microscopic hematuria.

History of Present Illness: The patient is a 56-year-old noted to have microscopic hematuria and overactive bladder. Her cystoscopy performed was unremarkable. She continues to have some episodes of frequency and urgency mostly with episodes during the day and rare at night. No gross hematuria, dysuria, pyuria, no other outlet obstructive and/or irritative voiding symptoms. The patient had been previously on Ditropan and did not do nearly as well. At this point, what we will try is a different medication. Renal ultrasound is otherwise unremarkable, notes no evidence of any other disease.

Impression: Overactive bladder and microscopic hematuria. She has no other significant findings other than her overactive bladder, which had continued. At this juncture what I would like to do is try a different anticholinergic medication. She has never had any side effects from her medication.

Plan: The patient will discontinue Ditropan. We will start Sanctura XR and we will follow up as scheduled. For the microscopic hematuria, we will perform follow-up urinalysis and cytology at 6 months.

ICD-10-CM Codes: _____

Case 20

Jackie is here for a check-up on her migraines. She has had migraines for the past 9 years. Her "attacks" used to last between 12–20 hours with throbbing pain, photophobia, vomiting, and blurred vision. She does not have preceding aura. She states the propranolol continues to help keep her migraine attacks in check. When she does have a migraine, Treximet is successful in relieving her symptoms. She also has decreased postdrome length and severity.

Vital Signs: Blood pressure of 115/66, heart rate of 69, respiratory rate of 13, temperature normal, and pulse oximetry 98 percent on room air at the time of initial evaluation.
HEENT: Head, normocephalic, atraumatic. Neck supple. Throat clear. No discharge from the ears or nose. No discoloration of conjunctivae and sclerae. No bruits auscultated over temple, orbits, or the neck.
LUNGS: Clear to auscultation.
CARDIOVASCULAR: Normal heart sounds.
ABDOMEN: Benign.
EXTREMITIES: No edema, clubbing or cyanosis.
SKIN: No rash. No neurocutaneous disorder.
NEURO: The patient is awake, alert and oriented to place and person. Speech is fluent. No language deficits. Mood normal. Affect is clear. Memory and insight is normal. No abnormality with thought processing and thought content. Cranial nerve examination intact II through XII. Motor examination: Normal bulk, tone and power. Deep tendon reflexes symmetrical. Downgoing toes. No sign of any myelopathy. Cortical sensation intact. Peripheral sensation grossly intact.

Patient with chronic migraine, without aura, not intractable. Doing well on medications. Continue present management. Patient to follow up as necessary.

ICD-10-CM Codes: _____