



A Closer Look: Documentation and Coding for Cardiac Conditions

Heart disease is a broad term used to describe a range of diseases that affect the heart. The various diseases that fall under the umbrella of heart disease include diseases of the heart and blood vessels. The term "heart disease" is often used interchangeably with "cardiovascular disease." Cardiovascular disease generally refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, angina or stroke. Other heart conditions, such as infections and conditions that affect the heart's muscle, valves or beating rhythm are also considered forms of heart disease. All types of heart disease share common traits, but they also have key differences. The goal of this article is to spend some time looking at documentation and diagnosis coding for conditions that fall under the cardiac conditions umbrella to achieve accurate and compliant practices.

Dysrhythmias

Cardiac dysrhythmia (also known as **arrhythmia** or **irregular heartbeat**) is any of a group of conditions in which the electrical activity of the heart is irregular or is faster or slower than normal.

The following are some common types of arrhythmia.

Tachycardia is an abnormally fast resting heart rate, usually exceeding 100 beats per minute.

Supraventricular tachycardia (SVT) is a burst of rapid heartbeats occurring in the top portion of the ventricles. Paroxysmal means the arrhythmia begins and ends suddenly. If the documentation is unclear, the Physician may need to be queried for clarification. Ventricular tachycardia is an abnormal electrical impulse that originates in the ventricles. It may be documented as nonsustained (lasting for less than 30 seconds) or sustained. If not treated promptly, sustained ventricular tachycardia may progress into ventricular fibrillation. Both ICD-9-CM and ICD-10-CM diagnosis coding requires a fourth digit to identify the location of the tachycardia. Ventricular fibrillation is a serious cardiac rhythm disturbance. The lower chambers quiver and the heart can't pump any blood, causing cardiac arrest.

427.0	Paroxysmal supraventricular tachycardia	I47.1	Supraventricular tachycardia
427.1	Paroxysmal ventricular tachycardia	I47.2	Ventricular tachycardia
427.2	Paroxysmal tachycardia unspecified	I47.9	Paroxysmal tachycardia unspecified

Fibrillation is the rapid, irregular, and unsynchronized contraction of muscle fibers and usually exceeds 300 beats per minute. Atrial fibrillation is an irregular and often rapid heart rate that commonly causes poor blood to flow to the body. Episodes of atrial fibrillation can come and go, or may be chronic. Ventricular fibrillation is a rapid, chaotic electrical impulse causing the ventricles to fibrillate ineffectively and fail to pump blood.

Flutter is an abnormal rapid spasmodic and usually rhythmic motion or contraction. Atrial flutter is caused by one or more rapid circuits in the atrium. It is more organized and regular than atrial fibrillation and often progresses to atrial fibrillation. Ventricular flutter is rapid contractions of the ventricles of the heart. Without treatment, ventricular flutter may progress to ventricular fibrillation.

ICD-9-CM diagnosis coding requires a fourth digit to identify the location and a fifth digit to identify the type of dysrhythmia (1 –fibrillation or 2 – flutter). ICD-10-CM diagnosis coding requires a fourth digit to identify the status of the condition for atrial fibrillation or atrial flutter. Ventricular Fibrillation and Flutter falls under category I49.0 and the fifth digit is used to identify the type.

427.**31** Atrial fibrillation

427.**41** Ventricular fibrillation

I48.**0** Paroxysmal atrial fibrillation

I48.**1** Persistent atrial fibrillation

I48.**2** Chronic atrial fibrillation

I49.**01** Ventricular fibrillation

427.**32** Atrial flutter

427.**42** Ventricular flutter

I48.**3** Typical atrial flutter

I48.**4** Atypical atrial flutter

I48.**9x** Unspecified atrial fibrillation and flutter

I49.**02** Ventricular flutter

Myocardial Infarction

A myocardial infarction (MI) or acute myocardial infarction (AMI) occurs when one or more coronary arteries that carry blood to the heart are blocked. Blockage of a coronary artery deprives the heart muscle of blood and oxygen, causing injury to the heart muscle.

There are two types of acute MI:

1. Transmural infarcts are associated with a buildup of plaque in a major coronary artery. They generally extend through the whole thickness of the heart muscle.
2. Subendocardial infarcts involve the wall of the left ventricle, the ventricular septum, or the papillary muscles. They are thought to be caused by a narrowing of the coronary arteries.

Both ICD-9-CM and ICD-10-CM diagnosis coding systems classify MIs as either ST elevation myocardial infarctions (STEMI) or non-ST elevation myocardial infarctions (NSTEMI). STEMI and NSTEMI are in the ICD-10-CM code titles instead of just being inclusion terms as in ICD-9-CM. STEMI usually results in a blockage of a coronary artery, indicated by a dramatic rise in cardiac enzymes in the blood and, eventually, Q wave changes on a cardiogram. NSTEMI generally occurs with symptoms of unstable angina, which causes a smaller rise in the cardiac enzymes without a resulting shift in the Q wave of the cardiogram. In both ICD-9-CM and ICD-10-CM if a NSTEMI evolves to STEMI, assign the STEMI code. If STEMI converts to NSTEMI due to thrombolytic therapy, it is still coded as STEMI. ICD-10-CM guidelines are clear-cut and specifically state to identify the location of the MI (e.g., left main coronary, left anterior descending, right coronary artery) and to code to the highest level of specificity. If the MI is documented without the site it is important to query the provider before coding “other”.

Documentation Requirements for Myocardial Infarction:

Location of the infarct

- Anterior wall
- Inferior wall
- Other

Onset of MI

- 8 weeks or less
- 4 weeks or less

Episode of care

- Initial or Subsequent episode of care

Event

- Initial and/or Subsequent

Comparison between ICD-9-CM and ICD-10-CM

	ICD-9-CM	ICD-10-CM
Status	AMI- an MI that has occurred within 8 weeks or less	Does not make a distinction for an acute status
Duration	Stated date of onset is less than 8 weeks – is acute	MI specified as acute or with a stated duration of 4 weeks or less from onset
Episode of care	Fifth character defines initial vs. subsequent episode of care	Does not make a distinction for episode of care
Event	Does not make a distinction between initial even vs. secondary events	Category to report a subsequent MI occurring within 4 weeks of a previous AMI, regardless of site
Old MI	Listed in its own category; 412 – Old Myocardial Infarction	Movement into the I25 category – Chronic Ischemic Heart Disease

Complications following an MI are now combined into one code range (I23 certain current complications following ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction (within the 28 day period), with guidance that a code from this category must be used with a code from either the initial (I21) or subsequent (I22) MI category. The complication code (I23) should be listed first if that is the reason for the visit, but should be listed second if the complication occurs during the encounter for the MI.

ICD-9-CM diagnosis coding requires a fourth digit to identify the site of the AMI for category 410 – Acute Myocardial Infarction. A fifth digit specifies the episode of care (0 – unspecified, 1- initial, 2 – subsequent).

ICD-10-CM diagnosis coding for AMI (category I21) requires a fourth digit to identify the site of the MI. Category I21 requires a fifth digit to specify the “artery” (Main, LAD, RCA, LC, Other Coronary Artery). Diagnosis coding for a Subsequent AMI (category I22) requires a fourth digit to identify the “site” of the AMI. There is no fifth digit for category I22, Subsequent STEMI and NSTEMI. A diagnosis code from category I22 must be used in conjunction with a code from category I21. The sequencing of the I22 and I21 codes depends on the circumstances of the encounter.

Heart Failure

Heart failure is a condition in which the heart is not able to pump enough oxygen-rich blood to meet the body's needs. It typically develops after other conditions have weakened or damaged the heart. Heart Failure is considered a chronic condition and tends to develop slowly over time. However, patients may experience a sudden onset of symptoms, which is known as acute heart failure. Congestive heart failure (CHF) means the heart does not pump as well as it should to meet the body's oxygen demands, often due to heart diseases such as cardiomyopathy or cardiovascular disease. CHF can result from either a reduced ability of the heart muscle to contract or from a mechanical problem that limits the ability of the heart's chambers to fill with blood. When weakened, the heart is unable to keep up with the demands placed upon it; blood returns to the heart faster than it can be pumped out so that it gets backed up or congested. Documentation should indicate whether the heart failure is acute or chronic and the part of the heart that is affected. Left-sided heart failure is the most common form. It causes shortness of breath due to fluid and blood backing up in the patient's lungs. Right-sided heart failure may cause fluid and blood to back up into the patient's abdomen, legs, and feet, resulting in swelling. It often occurs with left-sided heart failure. Systolic heart failure is caused by a pumping problem that occurs when the left ventricle cannot contract vigorously. Diastolic heart failure is caused by a filling problem that occurs when the ventricle cannot relax or fully fill. Diastolic or systolic dysfunction with CHF is assigned to two codes from category 428 – Heart Failure. One code will show the diastolic or systolic heart failure and code 428.0 to show CHF¹.

ICD-9-CM and ICD-10-CM diagnosis coding requires a fourth digit to identify the type of heart failure. Only systolic, diastolic and combined heart failure require a fifth digit to identify the status of the heart failure (0- Unspecified, 1 – Acute, 2 – Chronic, 3 – Acute on Chronic).

428.0	Congestive heart failure	I50.1	Left ventricular failure
428.1	Left heart failure	I50.2x	Systolic heart failure
428.2x	Systolic heart failure	I50.3x	Diastolic heart failure
428.3x	Diastolic heart failure	I50.4x	Combined heart failure
428.4x	Combined heart failure	I50.9	Heart failure, unspecified (includes CHF, NOS)
428.9	Heart failure, unspecified		

This material is for educational purposes only and is not intended to dictate what codes should be used in submitting claims. Health care providers are instructed to use the most appropriate codes based upon the medical record documentation and coding guidelines.

¹AHA Coding Clinic for ICD-9-CM, 2002, fourth quarter, pages 52-53