



Types of Cardiac Devices

Many cardiac devices are designed to help control irregular heartbeats. These devices help the hearts' electrical system function properly and/or measure heart rhythm. These devices include pacemakers, implantable cardioverter defibrillators (ICD) and loop recorders.

Pacemaker-Z95.0 presence of cardiac pacemaker

A pacemaker is a device that is implanted under the skin of the chest. It produces electrical pulses to keep the heart beating at a normal rate. A pacemaker helps manage heart rhythm disorders and/or an arrhythmia. It is implanted in the chest, beneath the collarbone.

After implantation, the device is checked to see how well the pacemaker is working. The information collected from the device includes battery life, condition of lead(s) and any arrhythmias experienced.

Biventricular pacemaker-Z95.0 presence of cardiac pacemaker

A biventricular pacemaker works like a conventional pacemaker, but uses a third wire to send electrical impulses to the heart to resynchronize the contractions of the heart's left lower ventricle. This type of pacemaker is typically used when medications do not relieve symptoms of heart failure.

Implantable cardioverter defibrillator(ICD) -Z95.810 Presence of automatic implantable cardiac defibrillator

People with heart failure are at risk for ventricular arrhythmias. These people may need a combination biventricular pacemaker and implantable cardioverter defibrillator which shocks the heart's rhythm back to normal.

An ICD detects an irregular heartbeat and automatically delivers a series of pacing pulses or an electrical shock to the heart to correct the heart's rate and rhythm. ICD devices are surgically implanted in the chest wall below the collarbone.

Cardiac loop recorder-Z95.818 presence of other cardiac implants & grafts

A loop recorder is a wireless cardiac monitor which continuously records your heart's rhythm. The device is inserted beneath the skin of the upper chest to record the heart's electrical activity. The device is implanted through a small incision under the skin in the upper chest.

Heart assist device-Z95.811 presence of heart assist device

A ventricular assist device (VAD) is a mechanical pump that is used to support heart function and blood flow in people who have weakened hearts. The device takes blood from a lower chamber of the heart and helps pump it to the body and vital organs, just as a healthy heart would. A VAD may be used if one or both of the heart's lower ventricles do not work properly.

There are 2 types of VAD, left ventricular assist device (LVAD) and a right ventricular assist device (RVAD). If both types are used at the same time, they may be called a biventricular assist device (BIVAD). However, a BIVAD is not a separate type of VAD.

An implantable VAD has its pump located inside of the body and its power source located outside of the body. A cable connects the pump to the power source through a small hole in the abdomen. Implantable VADs are mainly used a person is waiting for a heart transplant or as a long-term solution if they are not a transplant candidate.



ICD-10-CM

Coding Cardiac Arrhythmias



***While this document represents our best efforts to provide accurate information and useful advice, you should reference the current ICD-10-CM manual for the most up-to-date information. All medical coding must be supported with documentation.*



Cardiac Arrhythmias (I47–I49)

An arrhythmia is an abnormal heart rhythm. Arrhythmias occur when the electrical impulses that coordinate your heartbeats don't work properly, causing your heart to beat too fast, too slow or irregularly.

Causes:

Many things can cause an arrhythmia, including

- Scarring of heart tissue from a prior heart attack
- Changes to the heart's structure, such as from cardiomyopathy
- CAD, HTN, Diabetes, hyper- or hypothyroidism
- Smoking

Treatments may include:

- Antiarrhythmics
- Beta blockers (reduce heart's workload and decrease heart rate)
- Calcium channel blockers (reduce heart rate)
- Radiofrequency ablation
- Pacemaker

I48.- Atrial fibrillation and flutter

Atrial fibrillation is a rapid, irregular heart rate caused by chaotic electrical impulses in the atria. These cause rapid, uncoordinated, weak contractions of the atria and blood is not moved from the atria into the ventricles effectively.

Atrial flutter is similar to atrial fibrillation. However, the heartbeats in atrial flutter are more organized and more rhythmic.

Treatment options may include but not limited to:

- Medications (beta blockers, calcium channel blockers)
- Pulmonary vein isolation ablation
- AV node ablation with pacemaker

Codes include:

- I48.0 Paroxysmal atrial fibrillation
- I48.1 Persistent atrial fibrillation
- I48.2 Chronic atrial fibrillation
- I48.3 Typical atrial flutter
- I48.4 Atypical atrial flutter
- I48.91 Unspecified atrial fibrillation
- I48.92 Unspecified atrial flutter

I49.5 Sick sinus syndrome (SSS)

Also known as 'Sinoatrial node dysfunction' or 'Tachycardia-Bradycardia syndrome,' sick sinus syndrome is the name given to a group of arrhythmias in which the sinus node, which is responsible for setting the pace of the heart, doesn't send impulses properly. The heart rate may be too slow as a result, or it may speed up and slow down intermittently.

Treatment with artificial pacemaker:

Most people with sick sinus syndrome eventually need a permanent artificial pacemaker to monitor and regulate the heart's rhythm and send electrical signals to stimulate the heart when it's beating too slowly.

Additional treatments s/p pacemaker:

Patients who have a rapid heart rate as part of their SSS may need additional treatments after pacemaker placement to control fast rhythms. Treatments can include:

- Medications
- Radiofrequency ablation
- AV node ablation

Coding tips:

- SSS controlled by pacemaker - For patients with SSS that is controlled by their pacemaker, coding guidelines advise "no code assignment is required" for the SSS. Instead, a code may be assigned for pacemaker presence, or for attention to the pacemaker (Z45.010, Z45.018).
- SSS s/p pacemaker, additional treatment required – SSS may be coded when additional treatment is required to control the condition after placement of a pacemaker. This may occur when:
 - Medicines to control periods of fast heart rate are combined with pacemaker, which guards against periods of slow heart rate.
 - Pacemaker requires repair or replacement.

Documentation tips

- When documenting cardiac arrhythmias, include the following:
 - ✓ Location – atrial, ventricular, supraventricular, etc.
 - ✓ Rhythm name – flutter, fibrillation, etc.
 - ✓ Acuity – paroxysmal, chronic, etc.
 - ✓ Cause – hyperkalemia, HTN, etc.



Tachycardia (I47)

A heart rate of more than 100 beats per minute in adults is called tachycardia.

There are 3 types of tachycardias:

- Atrial or Supraventricular Tachycardia (SVT) (I47.1)
- Sinus Tachycardia (R00.0)
- Ventricular Tachycardia (I47.2)

Causes:

Many things can cause an arrhythmia, including:

- People who drink large amounts of coffee or caffeinated substances
- People who drink alcohol heavily
- People who smoke heavily

Symptoms may include:

- Fainting
- Rapid heartbeat
- Lightheadedness or dizziness
- Angina
- Shortness of breath

Treatment:

Most people don't need medical therapy. Treatment is considered if episodes are prolonged or occur often. Physicians might recommend:

- Cutting down on caffeine and/or alcohol intake
- Quitting tobacco use