Cardiac Devices

Humana

Medicaid Medical Coverage Policy

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Description

Cardiac devices are used for a variety of diagnostic and therapeutic indications, and include, but may not be limited to:

- **Automated external defibrillators (AEDs)** – portable electronic devices that allow a minimally trained individual to provide electric shock to prevent death due to sudden cardiac arrest. These devices monitor heart rhythm and can, if needed, deliver an electric shock to the chest wall much like a traditional (paddle) defibrillator in a hospital.

- **Cardiac contractility modulation (CCM)** – treats symptomatic HF in an individual who does not meet the criteria for cardiac resynchronization therapy (CRT) (eg, normal QRS duration). A pacemaker-sized device with electrodes is implanted into the chest which delivers electric pulses at regular intervals to modulate (adjust) the contractile strength of the heart muscle. **OPTIMIZER Smart** is an example of an FDA-approved CCM device. **CCM-defibrillation (CCM-D)** combines CCM and defibrillation in one system. The OPTIMIZER Integra-D is an investigational CCM-D device.

- **Implantable carotid sinus baroreflex activation (also known as baroreflex activation therapy [BAT])** – purported to treat HF in an individual with reduced ejection fraction or resistant hypertension (RHT). The device, such as the **Barostim Neo**, consists of a pulse generator lead positioned in the carotid sinus wall

and an implanted generator in an infraclavicular position which delivers electric current to baroreceptors in the carotid sinus.

- **Implantable cardioverter defibrillator (ICD)** – continuously monitors the heart rhythm and delivers therapy in response to a ventricular tachyarrhythmia that meets preprogrammed detection rates and duration in an individual who is at high risk of sudden cardiac death (SCD). Transvenous ICD systems consist of a pulse generator, typically placed in the pectoral region, and one or more transvenous leads that connect the generator to the heart. If the heart develops a sudden life-threatening fast rhythm, the device will either deliver rapid electrical pacing pulses to terminate the arrhythmia or deliver a shock to the inside of the heart to stop the abnormal rhythm. Certain devices will also pace the heart when it beats too slowly. Subcutaneous ICD (S-ICD) systems are considered less invasive than transvenous ICDs, as there are no leads placed in the heart or vasculature. Instead, an electrode is placed just beneath the skin of the chest. The S-ICD can sense VF and VT but cannot provide prolonged antibradycardia or antitachycardia pacing.

- **Implantable wireless left atrial pressure (LAP) monitoring** – investigational alternative to wireless pulmonary artery pressure (PAP) monitoring for use in the management of HF. A small, wireless sensor is implanted in the left atrium (upper chamber) of the heart to monitor left atrial pressure over time purportedly to guide optimal medical therapy for HF management. LAP data is remotely transmitted via an external reader unit to a secure data display for review by clinicians.

- **Implantable wireless pulmonary artery pressure (PAP) sensor** – measures changes in heart rate and pulmonary artery pressure that may indicate worsening HF. The hemodynamic data obtained from FDA-approved wireless PAP monitoring sensors, such as the **CardioMEMS** and **Cordella** HF systems, may be used to direct management of the symptoms and progression of heart failure. Intended benefits of the sensor include reduced HF-related hospitalization and improved quality of life.

- **Mobile cardiac outpatient telemetry (MCOT)** – records, monitors and transmits an individual's ECG continuously during normal daily activities. Heart rhythm data is transmitted from a small portable monitor to a monitoring center via cellphone technology when the algorithm detects an arrhythmia. Certified cardiovascular technicians analyze the transmissions 24 hours a day. The prescribing healthcare provider selects individualized monitoring thresholds and response parameters.

- **Substernal ICD (also known as extravascular ICD)** – performs pacing and defibrillation functions using an implantable substernal electrode. This novel ICD is reported to treat ventricular tachyarrhythmias while avoiding certain risks of transvenous ICDs because the lead is placed under the sternum (breastbone) outside the heart using a minimally invasive approach.

Coverage Determination

Automated External Defibrillator

Humana members may be eligible under the Plan for **an automated external defibrillator (AED) (E0617)** when the following criteria are met:

- Implantable cardioverter-defibrillator (ICD) is contraindicated[8]; **OR**
- Previously implanted ICD now requires explantation[8];

AND both of the following:

- A caregiver capable of operating the AED[8]; **AND**
- Individual has **any** of the following conditions:
  - Documented episode of sudden cardiac arrest (SCA) due to ventricular fibrillation (VF) not due to reversible cause[7,8]; **OR**
  - Documented myocardial infarction (MI) (more than 4 weeks prior to AED prescription) with left ventricular ejection fraction (LVEF) less than or equal to 35% and inducible, sustained ventricular tachycardia (VT) or VF on electrophysiology study (EPS) performed more than 4 weeks after qualifying MI[8]; **OR**
  - Familial (inherited) condition with high risk of life-threatening ventricular tachyarrhythmias (eg, hypertrophic cardiomyopathy, long QT syndrome)[8]; **OR**
  - Ischemic dilated cardiomyopathy (IDCM), documented prior MI, New York Heart Association (NYHA) Class II and III heart failure (HF) and LVEF less than or equal to 35%[8]; **OR**
  - Nonischemic dilated cardiomyopathy (NIDCM) for greater than 3 months, NYHA Class II and III HF and LVEF less than or equal to 35%[8]; **OR**
  - Sustained VT (spontaneous or induced during EPS) not associated with acute MI and not due to a transient or reversible cause[8]; **OR**
  - Documented MI with LVEF less than or equal to 30%[8];

    AND none of the following:

    - Candidate for revascularization[8]; **OR**
    - Cardiogenic shock or symptomatic hypotension while in stable baseline rhythm[8]; **OR**
    - Coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) within the past 3 months[8]; **OR**
    - Enzyme-positive MI within the past month[8]; **OR**

- Irreversible brain damage from preexisting cerebral disease[8]; **OR**

- Noncardiac disease (eg, cancer, liver or kidney failure) associated with likelihood of survival less than one year[8]

Cardioverter-Defibrillator and Leads

Humana members may be eligible under the Plan for **a cardioverter-defibrillator** and/or **cardioverter-defibrillator lead(s), including electrophysiologic evaluation**, when a medically necessary cardioverter-defibrillator implantation is performed, or replacement is required.

The following codes may apply: **93640 – 93642**, **93644**, **C1721**, **C1722**, **C1777**, **C1882**, **C1895**, **C1899**, **C1900**

Implantable Wireless Pulmonary Artery Pressure Sensor

Humana members may be eligible under the Plan for the any of the following when a medically necessary wireless pulmonary artery pressure sensor implantation is performed, or replacement is required:

- Remote monitoring of a wireless pulmonary artery pressure (PAP) sensor **(93264)**[3,12]
- Replacement patient electronics system for home PAP monitoring **(G0555)**[3,12]
- Wireless PAP sensor system **(C2624)**[3,12]

Mobile Cardiac Outpatient Telemetry (Real-time Cardiac Monitor)

Humana members may be eligible under the Plan for **noninvasive mobile cardiac outpatient telemetry (MCOT)/real-time continuous attended cardiac monitoring (93228, 93229)** for any of the following indications:

- Symptoms are infrequent (occur less frequently than once every 48 hours) or unpredictable and therefore require prolonged testing[1,2,18];

  AND any of the following:

  - Recurrent, unexplained syncope with suspected arrhythmic etiology when initial evaluation is nondiagnostic[1,2,18]; **OR**

  - Suspected paroxysmal atrial fibrillation as the cause of cryptogenic stroke when monitoring will guide medical management with anticoagulants[6]

Coverage Limitations

Humana members may **NOT** be eligible under the Plan for any of the following:

- AED for any indications other than those listed above **(E0617)**
- Cardiac contractility modulation system generator, including interrogation and programming (**0417T, 0418T, C1824**)
- Cardiac contractility modulation-defibrillation system interrogation and programming (**0926T, 0927T**)
- Carotid sinus baroreflex activation system generator with leads, including interrogation and programming (**0272T, 0273T, C1825**)
- Electrophysiological evaluation of a cardioverter defibrillator with substernal (extravascular) electrode (**0577T**)
- MCOT for any indications other than those listed above (**93228, 93229**)
- Wireless left atrial pressure remote monitoring (**0934T**)

A review of the current medical literature shows that the **evidence is insufficient** to determine that these services are standard medical treatments. There is an absence of current, widely-used treatment guidelines or acceptable clinical literature examining benefit and long-term clinical outcomes establishing the value of these services in clinical management.

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
93228	External mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real time data analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and patient selected events transmitted to a remote attended surveillance center for up to 30 days; review and interpretation with report by a physician or other qualified health care professional	
93229	External mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real time data analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and patient selected events transmitted to a remote attended surveillance center for up to 30 days; technical support for connection and patient	

	instructions for use, attended surveillance, analysis and transmission of daily and emergent data reports as prescribed by a physician or other qualified health care professional	
93264	Remote monitoring of a wireless pulmonary artery pressure sensor for up to 30 days, including at least weekly downloads of pulmonary artery pressure recordings, interpretation(s), trend analysis, and report(s) by a physician or other qualified health care professional	
93640	Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator leads including defibrillation threshold evaluation (induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination) at time of initial implantation or replacement;	
93641	Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator leads including defibrillation threshold evaluation (induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination) at time of initial implantation or replacement; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator	
93642	Electrophysiologic evaluation of single or dual chamber transvenous pacing cardioverter-defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)	
93644	Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)	
CPT® Category III Code(s)	**Description**	**Comments**
0272T	Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg, battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day);	
0273T	Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg,	

	battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day); with programming	
0417T	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, including review and report, implantable cardiac contractility modulation system	
0418T	Interrogation device evaluation (in person) with analysis, review and report, includes connection, recording and disconnection per patient encounter, implantable cardiac contractility modulation system	
0577T	Electrophysiologic evaluation of implantable cardioverter-defibrillator system with substernal electrode (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)	
0926T	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, including review and report, implantable cardiac contractility modulation-defibrillation system	
0927T	Interrogation device evaluation (in person) with analysis, review, and report, including connection, recording, and disconnection, per patient encounter, implantable cardiac contractility modulation-defibrillation system	
0934T	Remote monitoring of a wireless left atrial pressure sensor for up to 30 days, including data from daily uploads of left atrial pressure recordings, interpretation(s) and trend analysis, with adjustments to the diuretics plan, treatment paradigm thresholds, medications or lifestyle modifications, when performed, and report(s) by a physician or other qualified health care professional	
HCPCS Code(s)	**Description**	**Comments**
C1721	Cardioverter-defibrillator, dual chamber (implantable)	
C1722	Cardioverter-defibrillator, single chamber (implantable)	
C1777	Lead, cardioverter-defibrillator, endocardial single coil (implantable)	
C1824	Generator, cardiac contractility modulation (implantable)	
C1825	Generator, neurostimulator (implantable), nonrechargeable with carotid sinus baroreceptor stimulation lead(s)	
C1882	Cardioverter-defibrillator, other than single or dual chamber (implantable)	

C1895	Lead, cardioverter-defibrillator, endocardial dual coil (implantable)	
C1899	Lead, pacemaker/cardioverter-defibrillator combination (implantable)	
C1900	Lead, left ventricular coronary venous system	
C2624	Implantable wireless pulmonary artery pressure sensor with delivery catheter, including all system components	
E0617	External defibrillator with integrated electrocardiogram analysis	
G0555	Provision of replacement patient electronics system (e.g., system pillow, handheld reader) for home pulmonary artery pressure monitoring	

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Appendix

Appendix A
New York Heart Association Functional Classification System[26]

Classification	Symptoms
Class I (mild)	Individual with cardiac disease, but without resulting limitations on physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea or anginal pain.
Class II (mild)	Individual with cardiac disease resulting in slight limitations on physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea or anginal pain.
Class III (moderate)	Individual with cardiac disease resulting in marked limitations on physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, dyspnea or anginal pain.
Class IV (severe)	Individual with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort increases.

Change Summary

07/01/2025 New Policy.
11/04/2025 Update, Coverage Change. Updated Coding Information