Cardiac Devices

Humana

Medicaid Medical Coverage Policy

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Description

Cardiac devices are used for a variety of diagnostic and therapeutic indications, such as mobile cardiac outpatient telemetry (MCOT) and defibrillation.

Automated external defibrillators (AEDs) are 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.

The **implantable (transvenous) 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.

Mobile cardiac outpatient telemetry (MCOT) records, monitors and transmits an individual's ECG continuously as they go about their 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.

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[6]; **OR**
- Previously implanted ICD now requires explantation[6];

AND both of the following:

- A caregiver capable of operating the AED[6]; **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[5,6]; **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[6]; **OR**
  - Familial (inherited) condition with high risk of life-threatening ventricular tachyarrhythmias (eg, hypertrophic cardiomyopathy, long QT syndrome)[6]; **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%[6]; **OR**
  - Nonischemic dilated cardiomyopathy (NIDCM) for greater than 3 months, NYHA Class II and III HF and LVEF less than or equal to 35%[6]; **OR**
  - Sustained VT (spontaneous or induced during EPS) not associated with acute MI and not due to a transient or reversible cause[6]; **OR**
  - Documented MI with LVEF less than or equal to 30%[6];

    AND none of the following:

    - Candidate for revascularization[6]; **OR**

- Cardiogenic shock or symptomatic hypotension while in stable baseline rhythm[6]; **OR**
- Coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) within the past 3 months[6]; **OR**
- Enzyme-positive MI within the past month[6]; **OR**
- Irreversible brain damage from preexisting cerebral disease[6]; **OR**
- Noncardiac disease (eg, cancer, liver or kidney failure) associated with likelihood of survival less than one year[6]

Cardioverter-Defibrillator and Leads

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

The following codes may apply: **C1721, C1722, C1777, C1882, C1895, C1899**

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[1,2,10];

  AND any of the following:

  - Recurrent, unexplained syncope with suspected arrhythmic etiology when initial evaluation is nondiagnostic[1,2,10]; **OR**
  - Suspected paroxysmal atrial fibrillation as the cause of cryptogenic stroke when monitoring will guide medical management with anticoagulants[4]

Coverage Limitations

Humana members may **NOT** be eligible under the Plan for **an AED** for any indications other than those listed above.

Humana members may **NOT** be eligible under the Plan for **an MCOT** for any indications other than those listed above.

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	
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)	
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)	
E0617	External defibrillator with integrated electrocardiogram analysis	

References

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4. American Heart Association (AHA). 2021 guideline for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline from the American Heart Association/American Stroke Association. https://heart.org. Published December 2021.

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9. Greif R, Bray JE, Djarv T, et al. 2024 international consensus on cardiopulmonary resuscitation and emergency cardiovascular care science with treatment recommendations. *Circulation.* 2024;150(24):e580-e687.

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11. Nichol G, Sayre MR, Guerra F, Poole J. Defibrillation for ventricular fibrillation. *J Am Coll Cardiol.* 2017;70(12):1496-1509.

12. UpToDate, Inc. Ambulatory ECG monitoring. https://uptodate.com. Updated May 2025.

13. UpToDate, Inc. Automated external defibrillators. https://uptodate.com. Updated May 2025.

14. UpToDate, Inc. Determining the etiology and severity of heart failure or cardiomyopathy. https://uptodate.com. Updated May 2025.

Appendix

Appendix A
New York Heart Association Functional Classification System[14]

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.