

Cardiac Monitors

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Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Ambulatory Cardiac Monitors – Monitors activated only when triggered by the individual. These monitors are often referred to as event monitors. The two (2) basic types are:

- Looping memory monitor: Activated by pushing a button; stores data from before and during symptom occurrence, prior to when it was activated; if activated immediately after a syncopal episode, it will record from the time before the event;
- Symptom event monitor: Activated by pushing a button; does not store data prior to when it was activated.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently services Delaware Medicaid: Delaware Healthy Children Program (DHCP) and Diamond State Health Plan Plus members.

Implantable Cardiac Monitor – A monitor implanted under the skin that can monitor continuously and can be triggered by the individual; it may be implanted for several years.

Mobile Cardiac Outpatient Telemetry (MCOT) – A type of loop monitor that is auto-triggered by rhythm changes and also can be triggered by the individual. It is commonly ordered for 14 or 30 day periods.

ZIO Patch – An external monitor applied by adhesive to the chest; it records continuously and typically is worn up to 14 days. It is much less expensive than the mobile cardiac output telemetry and the implantable monitors.

POLICY POSITION

1. Ambulatory cardiac monitors

The use of individual activated or auto activated external ambulatory event monitors or continuous ambulatory monitors that record and store information for periods greater than 48 hours may be considered medically necessary as a diagnostic alternative to Holter monitoring.

2. Quantity level limits (QLL)

- Ambulatory event monitors may be considered medically necessary once in a 30 day period regardless of the number of events or recordings which occurred.
 - Note: Ambulatory event monitors are considered part of the global allowance and are not eligible for separate reimbursement when performed more frequently within the 30 day period.
- Ambulatory event monitors for greater than 30 consecutive days in a twelve (12) month period must be referred for a medical necessity determination. An additional 30 consecutive days may be considered medically necessary in EITHER of the following situations:
 - After treatment has been initiated, the symptoms continue to occur; or
 - No symptoms occurred during the initial 30 day use of the recorder.

Additional use greater than 30 consecutive days can be made only if documentation can establish the medical need for the frequency.

The use of individual activated or auto activated external ambulatory event monitors or continuous ambulatory monitors not meeting the criteria as indicated in this policy is considered not medically necessary.

3. Ambulatory cardiac monitoring (ZIO Patch) and event monitors

The use of long-term (greater than 48 hours) external ECG monitoring by continuous rhythm recording and storage (e.g., Zio Patch) may be considered medically necessary for EITHER one of the following:

- Individuals who experience infrequent symptoms (less frequently than every 48 hours) suggestive of cardiac arrhythmias (i.e., palpitations, dizziness, presyncope, or syncope); or
- Individuals with atrial fibrillation (AF) who have been treated with catheter ablation and in whom discontinuation of systemic anticoagulation is being considered.

The use of long-term (greater than 48 hours) external ECG monitoring by continuous rhythm recording and storage not meeting the criteria as indicated in this policy is considered not medically necessary.

4. Mobile cardiac outpatient telemetry (MCOT)

MCOT is limited to a select population and may be considered medically necessary when ALL of the following are met:

- The individual has failed a 48-hour Holter monitor and ONE of the following:
 - A ZIO patch; or
 - An individual-triggered event monitor; or
- A Holter monitor has not been completed and the individual has failed ONE of the following:
 - A ZIO patch; or

- An individual-triggered event monitor.

Note: In all cases, the individual must meet the criteria as stated unless the individual's condition is such that a Holter monitor and an event monitor and a Zio Patch are not adequate to make a diagnosis. An explanation must be provided as to why only the MCOT would be sufficient.

5. Contraindications

- Real-time outpatient cardiac monitoring is contraindicated for individuals at high risk of developing sustained ventricular tachycardia or ventricular fibrillation and/or would be more appropriately cared for in a hospital setting.
- The MCOT is not indicated for individuals with mild to moderate symptoms of "palpitations" or "weakness."
- This system is also not indicated for use as a screening tool.

Use of cardiac surveillance and Holter or event monitoring for the same individual on the same day is considered not medically necessary.

The use of MCOT not meeting the criteria as indicated in this policy is considered not medical necessary.

6. QLL

- MCOT is considered not medically necessary when more than one (1) monitoring episode is reported in a 30 day period.
- MCOT is considered not medically necessary when more than two (2) monitoring episodes are reported in a (12) month period.

7. Implantable cardiac loop recorder

The implantation and removal of a cardiac loop recorder may be considered medically necessary when the following criteria are met:

- The individual has failed a 48-hour Holter monitor and ONE of the following:
 - A ZIO patch; or
 - An individual-triggered event monitor; or
- A Holter monitor has not been completed and the individual has failed ONE of the following:
 - A ZIO patch; or
 - An individual-triggered event monitor.

Note: In all cases, the individual must meet the criteria as stated unless the individual's condition is such that a Holter monitor and an event monitor and a Zio Patch are not adequate to make a diagnosis. An explanation must be provided as to why only the MCOT would be sufficient.

- There is documentation of the following:
 - Palpitations; or
 - Dizziness; or
 - Syncope and collapse; or
 - Other transient symptoms which could be due to arrhythmia; or
 - Long term cardiac monitoring post cryptogenic stroke or transient ischemic attack (TIA); and
 - When BOTH of the following criteria are met:

- A cardiac arrhythmia is suspected as the cause of the symptoms; and
- EITHER of the following criteria are met:
 - Individuals with heart failure, prior MI or significant ECG abnormalities, noninvasive ambulatory monitoring, consisting of 30-day presymptom external loop recordings or MCOT, fails to establish a definitive diagnosis; or
 - Individuals without heart failure, prior MI or significant ECG abnormalities, symptoms occur so infrequently and unpredictably (less than one (1) per month) that noninvasive ambulatory monitoring (MCOT or external loop recorders) are unlikely to capture a diagnostic ECG.

The use of an implantable cardiac loop recorder not meeting the criteria as indicated in this policy is considered not medically necessary.

8. QLL

A remote interrogation device evaluation may be considered medically necessary once in 30 days with interim physician analysis and review. A remote interrogation device evaluation greater than 30 days are considered part of the global allowance and are not eligible for separate reimbursement.

9. Implantable cardiac loop recorder for post cryptogenic stroke or TIA

An implantable cardiac loop recorder, for post cryptogenic stroke or TIA, may be considered medically necessary when ALL of the following are met:

- Diagnosis of a cryptogenic ischemic stroke or TIA should be based upon evaluation by a neurologist; and
- The following standard tests are ALL required to establish diagnosis of cryptogenic stroke:
 - Brain MRI or CT; and
 - 12 lead ECG for AF detection; and
 - 24 hour ECG monitoring for AF detection (e.g. Holter); and
 - Transesophageal echocardiography (TEE); and
 - CT angiography (head and neck) or magnetic resonance angiography (MRA) (head and neck) to rule out other causes of stroke; and
- The individual is greater than or equal to 40 years of age; and
- A documented collaborative treatment plan between neurologist and cardiologist; and
- A TIA requires additional documentation of speech disturbance or limb weakness.

10. Not medically necessary

Implantable cardiac loop recorders post cryptogenic stroke or TIA are considered not medically necessary if an individual has ANY of the following:

- The individual has a known etiology of stroke or TIA (i.e., large artery atherosclerosis, acute small artery occlusion with a lesion less than one (1) cm in diameter by CT or MRI); or
- Evidence of high-risk cardiac or aortic arch source of embolism (left ventricular (LV) or left atrial (LA) thrombus) or "smoke", emboligenic valvular lesion or tumor, patent foramen ovale (PFO) with extant source of venous thromboembolism, aortic arch plaque greater than three (3) mm thick or with mobile components; or
- History of spontaneous deep vein thrombosis (DVT); or

- Stroke of other determined cause such as the presence of nonatherosclerotic vasculopathy, hypercoagulable states (must be tested in individuals less than 55 years of age) and hematologic disorders; or
- Untreated hyperthyroidism; or
- MI less than one (1) month before stroke/TIA; or
- Coronary bypass grafting (CABG) less than one (1) month before stroke/TIA; or
- Valvular disease requiring immediate surgical intervention; or
- Documented history of AF or atrial flutter; or
- Presence of PFO and PFO is an indication to start oral anticoagulant therapy in accordance with European Stroke Organization (ESO) guidelines; or
- The individual has a permanent indication for anticoagulation; or
- The individual has a permanent contraindication for anticoagulation; or
- Life expectancy less than one (1) year; or
- The individual is indicated for implant with pacemaker, implantable cardioverter defibrillator (ICD), cardiac resynchronization therapy (CRT) or implantable hemodynamic monitoring system.

An implantable cardiac loop recorder, for post cryptogenic stroke or TIA not meeting the criteria as indicated in this policy is considered not medically necessary.

ELIGIBLE PROCEDURE CODES

CPT Codes	Description
33285	Insertion, subcutaneous cardiac rhythm monitor, including programming.
33286	Removal, subcutaneous cardiac rhythm monitor.
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; physician review and interpretation with report.
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 physician prescribed transmission of daily and emergent data reports.
93242	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; recording (includes connection and initial recording).
93243	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; scanning analysis with report.
93244	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; review and interpretation.
93246	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; recording (includes connection and initial recording).
93248	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; review and interpretation.
93268	External patient and, when performed, auto activated electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download

	capability up to 30 days, 24-hour attended monitoring; includes transmission, review and interpretation by a physician or other qualified health care professional.
93270	External patient and, when performed, auto activated electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days, 24-hour attended monitoring; recording (includes connection, recording, and disconnection).
93271	External patient and, when performed, auto activated electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days, 24-hour attended monitoring; transmission and analysis.
93272	External patient and, when performed, auto activated electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days, 24-hour attended monitoring; review and interpretation by a physician or other qualified health care professional.
93285	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 physician analysis review and report; implantable loop recorder system.
93291	Interrogation device evaluation (in person) with physician analysis, review and report, includes connection, recording and disconnection per patient encounter implantable loop recorder system including heart rhythm derived data analysis.
93297	Interrogation device evaluation(s) up to 30 days; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, physician analysis, review(s) and report(s).
93298	Interrogation device evaluation(s), (remote) up to 30 days; implantable loop recorder system, including analysis of recorded heart rhythm data, physician analysis review(s) and report(s).

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES 93268, 93270, 93271, AND 93272

Codes						
I25.111	I25.118	I25.119	I25.701	I27.708	I25.709	I25.711
I25.718	I25.719	I25.721	I25.728	I25.729	I25.731	I25.738
I25.739	I25.751	I25.758	I25.759	I25.761	I25.768	I25.769
I25.791	I25.798	I25.799	I46.2	I46.8	I46.9	I47.0
I47.2	I49.3	I49.01	I49.02	I50.1	Q24.6	Q25.21
Q25.29	Q25.40	Q25.40	Q25.41	Q25.42	Q25.43	Q25.44
Q25.45	Q25.46	Q25.47	Q25.48	Q25.49	R06.3	R06.83
R06.89	R07.82	R40.4				

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES 93228, 93229, 93268, 93270, 93271, AND 93272

Codes						
I20.1	I20.8	I20.9	I44.0	I44.1	I44.2	I44.4
I44.5	I44.7	I44.30	I44.39	I44.60	I44.69	I45.0
I45.2	I45.3	I45.4	I45.5	I45.6	I45.10	I45.19
I45.89	I47.1	I47.9	I48.0	I48.11	I48.19	I48.20

I48.21	I48.3	I48.4	I48.91	I48.92	I49.1	I49.49
I49.2	I49.5	R06.00	R06.01	R06.02	R06.09	R07.2
R07.9	R07.89					

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES 33285, 33286, 93228, 93229, 93268, 93270, 93271, 93272, 93285, 93291, 93297, 93298, AND E0616

Codes						
I45.9	I45.81	I49.8	I49.9	I49.40	ROO.1	R00.2
R42	R55					

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES 33285, 33286, 93285, 93291, 93297, 93298, AND E0616

Codes						
G45.9	I63.81	I63.89	I63.9	I63.50	I63.59	I63.313
I63.323	I63.333	I63.343	I63.413	I63.423	I63.433	I63.511
I63.512	I63.519	I63.521	I63.522	I63.529	I63.531	I63.532
I63.539	I63.541	I63.542	I63.549	I67.841	I68.848	Z45.09
Z86.73	Z95.818					

COVERED DIAGNOSIS CODES FOR PROCEDURE CODES 93228, AND 93229

Codes						
I21.11	I20.8	I21.01	I21.02	I21.09	I21.9	I21.A1
I21.A9	I22.0	I24.1	I24.8	I24.9	I25.2	I25.5
I25.6	I49.2	R00.0	R00.8	R00.9	Z82.49	Z86.74

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POLICY UPDATE HISTORY

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