

Medical Policy: Cardiac Event Monitors (Commercial)



POLICY NUMBER	EFFECTIVE DATE	APPROVED BY
MG.MM.DM.18aC3	01/01/2020	MPC (Medical Policy Committee)

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Definitions

Cardiac event monitors are small portable devices worn by a patient during normal activity for up to 30 days. The device has a recording system capable of storing several minutes of the individual's electrocardiogram (EKG) record. The patient can initiate EKG recording during a symptomatic period of arrhythmia. These monitors are particularly useful in obtaining a record of arrhythmia that would not be discovered on a routine EKG or an arrhythmia that is so infrequent that it is not detected during a 24-hour period by a Holter monitor.

Two different types of cardiac event monitors are available. Pre-symptom (looping memory) event monitors are equipped with electrodes attached to the chest and are able to capture EKG rhythms before the cardiac event monitor is triggered (pre-symptom recording). Post-symptom event monitors do not have chest electrodes. One type of post-symptom event monitor is worn on the wrist. When symptoms occur, the patient presses a button to trigger an EKG recording. Another type of post-symptom event monitor is a device that the patient carries within easy

reach. When symptoms occur, the patient presses the electrodes on the device against their chest and presses a button to trigger the EKG recording.

Cardiac event monitors have been developed with automatic trigger capabilities, which are designed to automatically trigger an EKG recording when certain arrhythmias occur. Automated trigger cardiac event monitors are thought to be more sensitive, but less specific, than manually-triggered cardiac event monitors for significant cardiac arrhythmias.

Cardiac event monitors may come with 24-hour remote monitoring. Usually, EKG results are transmitted over standard phone lines at the end of each day to an attended monitoring center where a technician screens EKG results and notifies the patient's physician of any significant abnormal results, based on predetermined notification criteria.

Newer cardiac event monitors allow EKG results to be transmitted via e-mail over the internet. Some cardiac event monitors allow the patient to transmit EKG over standard telephone lines to the attended monitoring center immediately after symptoms occur while other cardiac event monitors have been adapted to also allow immediate transmission of EKG results by cellular telephone.

Standard cardiac event monitors come with 5 to 10 mins of memory. Cardiac event monitors with expanded memory capabilities have been developed, extending memory from approximately 20 to 30 mins to as much as several hours.

Mobile cardiovascular telemetry (MCT) refers to non-invasive ambulatory cardiac event monitors with extended memory capable of continuous measurement of heart rate and rhythm over several days, with transmission of results to a remote monitoring center. MCT is similar to standard cardiac telemetry used in the hospital setting.

CardioNet (Philadelphia, PA) has developed an MCT device with extended memory, automatic ECG arrhythmia detector and alarm that is incorporated into a service that CardioNet has termed "Mobile Cardiac Outpatient Telemetry (MCOT)." The CardioNet device couples an automatic arrhythmia detector and cellular telephone transmission so that abnormal EKG waveforms can automatically be transmitted immediately to the remote monitoring center. The CardioNet device also has an extended memory characteristic of digital Holter monitors; the CardioNet device is capable of storing up to 96 hours of EKG waveforms. These ECG results are transmitted over standard telephone lines to the remote monitoring center at the end of each day. The physician receives both urgent and daily reports.

Guideline

I. External intermittent cardiac event monitors (i.e., external loop recorders) and external intermittent cardiac event monitors with real-time data transmission and analysis (e.g., eCardio eVolution)

Medically necessary for **any** of the following conditions:

- A. To document suspected arrhythmia in members with a non-diagnostic Holter monitor (e.g., suspected atrial fibrillation [AF] as cause of cryptogenic stroke), or in members whose symptoms occur less infrequently (i.e., < daily) such that the arrhythmia is unlikely to be diagnosed by Holter monitoring

- B. To document ST segment depression for suspected ischemia
- C. To document the benefit after initiating drug therapy for an arrhythmia
- D. To document recurrence of arrhythmia after discontinuation of drug therapy
- E. To document results after ablation procedure for arrhythmia
- F. To evaluate syncope and lightheadedness in members with a non-diagnostic Holter monitor, or in members whose symptoms occur infrequently (i.e., < daily) such that the arrhythmia is unlikely to be diagnosed by Holter monitoring

II. Mobile cardiovascular telemetry (MCT)

(E.g., CardioNet Mobile Cardiac Outpatient Telemetry [MCOT] Service; Cardiac Telecom and Health Monitoring Services of America's Telemetry @ Home Service; Heartrak ECAT [External Cardiac Ambulatory Telemetry] [Mednet Healthcare Technologies]; HEARTLink™ ECG Arrhythmia Detector and Alarm System [Cardiac Telecom]; LifeStar ACT Monitor [LifeWatch]; SAVI® Telemetry [Mediacomp]; Scott Care™ Cardiovascular Solutions])

Medically necessary for the evaluation of recurrent unexplained episodes of pre-syncope, syncope, palpitations or dizziness when the following criteria (**A or B**) is met:

- A. Evaluation of recurrent unexplained episodes of presyncope, syncope, palpitations or dizziness when **both** are applicable:
 - i. Cardiac arrhythmia is suspected cause of symptoms
 - ii. Member has a non-diagnostic Holter monitor, or symptoms occur infrequently (i.e., < daily) such that the arrhythmia is unlikely to be diagnosed by Holter monitoring
- B. Evaluation of members with suspected AF as a cause of cryptogenic stroke who have had a nondiagnostic Holter monitor

III. Implantable loop recorder (e.g., Reveal Insertable Loop Recorder [Medtronic])

Medically necessary for the following indications:

- A. Evaluation of recurrent unexplained episodes of pre-syncope, syncope, "seizures" or dizziness when **both** of the following criteria are met:
 - i. Cardiac arrhythmia is suspected cause of symptoms
 - ii. **Either** of the following criteria is met:
 - a. Member with heart failure, prior myocardial infarction (MI) or significant ECG abnormalities (see [Appendix](#)) — noninvasive ambulatory monitoring (consisting of 30-day presymptom external loop recordings or MCT) fails to establish a definitive diagnosis
 - b. Member without heart failure, prior MI or significant ECG abnormalities (see [Appendix](#)) — symptoms occur so infrequently and unpredictably (i.e., < once per month) that noninvasive ambulatory monitoring (MCT or external loop recorders) are unlikely to capture a diagnostic ECG

- B. For evaluation of members with suspected AF as a cause of cryptogenic stroke who have had a nondiagnostic Holter monitor.

Note: Depending on clinical presentation, the member may have had a negative or non-diagnostic electrophysiological study (EPS); however, EPS is no longer considered a prerequisite to insertion of an implantable loop recorder.

- IV.** Long-term (> 48 hours) external ECG monitoring by continuous rhythm recording and storage (e.g., Zio Patch)

Medically necessary for the following indications:

- C. To evaluate syncope and lightheadedness in members with a non-diagnostic Holter monitor, or in members whose symptoms occur infrequently (i.e., < daily) such that the arrhythmia is unlikely to be diagnosed by Holter monitoring
- D. To document arrhythmia in members with a non-diagnostic Holter monitor, or in members whose symptoms occur infrequently (i.e., < daily) such that the arrhythmia is unlikely to be diagnosed by Holter monitoring

Limitations/Exclusions

Requests for repeat studies within 1 year of a previous study will be case-by-case reviewed.

Loop recorders (regardless of whether they are external or implantable) are not considered medically necessary for any indications other than those listed above.

The following monitors are considered investigational and not medically necessary due to insufficient evidence of therapeutic value:

1. AliveCor Heart Monitor (iPhoneECG)
2. BIOTRONIK BioMonitor
3. Mobile patient management systems (eg, BodyGuardian Remote Monitoring System)
4. Self-monitoring ECG technologies or the ViSi Mobile Monitoring System

Cardiac event detection, CPT codes 93268, 93270, 93271, 93272, is a 30-day packaged service. Tests may not be billed within 30 days of each other, even if the earlier of the tests was discontinued when arrhythmias were documented, and the patient is now reconnected for follow-up of therapy or intervention.

Applicable Coding

To access the codes, please download the policy **to your computer, and click on the paperclip icon within the policy**



Applicable CPT and Diagnosis Codes

References

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Specialty matched clinical peer review.

Revision history

DATE	REVISION
01/01/2020	Connecticare has adopted the clinical criteria of its parent corporation, EmblemHealth. Removed MCG criteria policy-M20190034

Appendix

Short-Term High-Risk Criteria Which Require Prompt Hospitalization or Intensive Evaluation

Severe structural or coronary artery disease (heart failure, low LVEF, or previous MI)
<p>Clinical or ECG features suggesting arrhythmic syncope</p> <ul style="list-style-type: none">• Syncope during exertion or supine• Palpitations at the time of syncope• Family history of SCD• Non-sustained VT• Bifascicular-block (LBBB or RBBB combined with left anterior or left posterior fascicular block) or other intraventricular conduction abnormalities with QRS duration ≥ 120 ms• Inadequate sinus bradycardia (< 50 bpm) or sinoatrial block in absence of negative chronotropic medications or physical training• Pre-excited QRS complex• Prolonged or short QT interval• RBBB pattern with ST-elevation in leads V1-V3 (Brugada pattern) <p>Negative T waves in right precordial leads, epsilon waves, and ventricular late potentials suggestive of ARVC</p>
<p>Important co-morbidities</p> <ul style="list-style-type: none">• Severe anemia• Electrolyte disturbance

Key: ARVC: arrhythmogenic right ventricular cardiomyopathy; bpm: beats per minute; LBBB: left bundle branch block; LVEF: left ventricular ejection fraction; RBBB: right bundle branch block; SCD: sudden cardiac death; VT: ventricular tachycardia.

Source: Task Force for the Diagnosis and Management of Syncope; European Society of Cardiology (ESC); European Heart Rhythm Association (EHRA); Heart Failure Association (HFA); Heart Rhythm Society (HRS), Moya A, Sutton R, Ammirati F, et al. Guidelines for the diagnosis and management of syncope (version 2009). Eur Heart J. 2009;30(21):2631-2671.