GUIDELINES
This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder contract. Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards. This guideline is solely for explaining correct procedure reporting and does not imply coverage and reimbursement.

DESCRIPTION
Cardiac arrhythmias are abnormal heart rhythms that can cause palpitations, weakness, dizziness, fainting, blood clots, or death. There are a wide variety of treatments available for arrhythmias, however, obtaining an accurate diagnosis can be difficult since arrhythmias can occur infrequently and unpredictably and may not cause obvious symptoms. Ambulatory Holter electrocardiography (EKG), which is a noninvasive test used to continuously record an EKG over a specified period of time, usually 24 to 48 hours, is used to evaluate symptoms suggestive of cardiac arrhythmias. It is particularly useful if symptoms occur on a daily or near daily basis. However, Holter monitoring may be ineffective if the patient experiences infrequent symptoms.

Cardiac event monitors were developed to provide longer periods of monitoring and may be useful when the initial evaluation by Holter monitoring is non-diagnostic or when symptoms are infrequent. Remote cardiac monitoring technologies allow home electrocardiographic (EKG) monitoring of individuals with suspected cardiac arrhythmias or at risk for developing arrhythmias. A variety of ambulatory external EKG monitoring systems have been developed.

The following are descriptions of various cardiac event monitors:

<table>
<thead>
<tr>
<th>Device Class</th>
<th>Description</th>
<th>Example Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Loop Recorder</td>
<td>An external loop monitor has the capability to monitor an individual for long durations (e.g. up to seven days) and thus has a higher chance of providing a diagnosis to those whose symptoms occur infrequently. It is recommended for those with infrequent short-duration transient symptoms, reoccurring over weeks or months.</td>
<td>Explorer Looping Monitor (LifeWatch Services, Switzerland)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LifeStar AF Express Auto-Detect Looping Monitor (LifeWatch Services, Switzerland)</td>
</tr>
<tr>
<td>Implantable Loop Recorder</td>
<td>An implantable loop recorder (ILR) is rarely the preferred initial test for ambulatory ECG monitoring (AECG). However, this test can be useful for members with infrequent (e.g. less than monthly) symptoms that are potentially harmful to the individual. An ILR is implanted subcutaneously in a member’s upper left chest and left for several months.</td>
<td>Reveal XT ICM (Medtronic, Minneapolis, MN)</td>
</tr>
<tr>
<td>Mobile Cardiac Outpatient Telemetry (MCOT)</td>
<td>MCOT monitors members in realtime using built-in detection algorithms and cellular technology. It holds up to 96 hours of memory and allows providers to capture significant arrhythmic events, even when no symptoms are experienced.</td>
<td>CardioNet MCOT (BioTelemetry, Malvern, PA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LifeStar Mobile Cardiac Telemetry (LifeWatch Services, Switzerland)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEEQ Mobile Cardiac Telemetry (Medtronic, Minneapolis, MN)</td>
</tr>
<tr>
<td>Long-term Continuous (&gt;48 hours) External Cardiac Monitoring Device</td>
<td>Devices continuously worn and continuously record via ≥1 cardiac leads and store data for a longer period than traditional Holter (14 d)</td>
<td>Zio Patch system (iRhythm Technologies, San Francisco, CA)</td>
</tr>
</tbody>
</table>
POLICY
Continuous Recorder (Holter Monitor) (93224, 93225, 93226, 93227), External Loop Recorder (codes 93268, 93270, 93271, 93272), Implantable Loop Recorder (33282, 33284, 93285, 93291, 93297, 93298, 93299, E0616), Mobile Cardiac Outpatient Telemetry (MCOT) (93228, 93229) do not require prior authorization for all product lines.

Long-term Continuous (>48 hours) External Cardiac Monitoring Device (0295T-0298T) does not require prior authorization for HMO, PPO, Individual Marketplace, & Elite.

Long-term Continuous (>48 hours) External Cardiac Monitoring Device (0295T-0298T) is non-covered for Advantage.

Intracardiac Ischemia Monitoring (0302T-0307T) & Other Cardiac Event Monitors (as listed below) are non-covered for all product lines.

COVERED
Continuous Recorder/ Holter Monitors
The use of 24 to 48-hour continuous external cardiac monitoring and storage [CPT codes 93224, 93225, 93226, 93227, (e.g., Holter Monitor)], are considered medically necessary when any of the following criteria are met:

1. As a diagnostic tool to evaluate symptoms suggestive of cardiac arrhythmias (e.g., frequent palpitations, unexplained dizziness, or syncope)
2. To assess pacemaker or implantable cardioverter defibrillator (ICD) function for any of the following indications:
   - In patients experiencing frequent symptoms of palpitation, syncope, or near syncope
   - When there is a suspected component failure or malfunction
   - To assess response to drug therapy in patients with an ICD
3. To assess for myocardial ischemia in suspected variant angina or known coronary artery disease when such information will impact management
4. To assess antiarhythmic drug therapy in individuals with a treated arrhythmia
5. For pediatric patients with ANY of the following indications:
   - Hypertrophic or dilated cardiomyopathies
   - Possible long QT syndromes
   - Congenital heart disease accompanied by significant residual hemodynamic abnormalities when surgery is being considered
   - To assess the adequacy of antiarhythmic therapy during rapid growth
   - Asymptomatic non-paced congenital complete atrioventricular (AV) block

External Loop Recorder
The external loop recorder (CPT codes 93268, 93270, 93271, and 93272) is covered when the following medical indications are met:

1. To document an arrhythmia instead of using a Holter monitor, or if a Holter monitor fails to document a suspected arrhythmia; or
2. To document ST segment depression for suspected ischemia; or
3. To document the benefit after initiating drug therapy for an arrhythmia; or
4. To document recurrence of an arrhythmia after discontinuation of drug therapy; or
5. To document the results after an ablation procedure for arrhythmia; or
6. To evaluate syncope and light-headedness

Implantable Loop Recorder
The use of implantable loop recorder (CPT codes 33282, 33284, 93285, 93291, 93297, 93298, 93299, E0616) for the evaluation of recurrent unexplained episodes of fainting are also covered services, only when ALL of the following criteria are met:

1. Cardiac arrhythmia is suspected to be the cause of fainting
2. Noninvasive ambulatory monitoring failed to establish a definitive diagnosis because the symptoms occur so infrequently and unpredictably that the length of the monitoring period may have been inadequate to capture a diagnostic electrocardiogram (ECG) rhythm disorder.

3. Tilt-table testing is negative or non-diagnostic.

Real-time Cardiac Monitors/Mobile Cardiac Outpatient Telemetry (MCOT)
MCOT (CPT codes 93228 and 93229) is covered for 30 days as medically necessary when ALL of the following criteria are met:

1. Clinical suspicion of a significant arrhythmia
2. Symptoms of syncope, presyncope, or severe palpitations occurring less frequently than once per 24 hours are present
3. Non-diagnostic 24-hour Holter or non-real time monitoring (eg., event monitor, pacemaker telephonic telemetry, post-symptom patient-activated recorder or auto-trigger) within 60 days prior to consideration of the use of a home-based, real-time continuous attended cardiac monitoring system

Documentation Requirements
1. All documentation must be maintained in the patient’s medical record and available upon request.
2. Every page of the record must be legible and include appropriate patient identification information (e.g., complete name, dates of service(s)). The record must include the physician or non-physician practitioner responsible for and providing the care of the patient.
3. The submitted medical record should support the use of the selected ICD code(s). The submitted CPT/HCPCS code should describe the service performed.

NON-COVERED

Intracardiac Ischemia Monitoring
Paramount does not cover an intracardiac ischemia monitoring (CPT codes 0302T-0307T) for any indication because it is considered experimental, investigational or unproven.

Other Cardiac Event Monitors
Paramount does not cover ANY of the following for any indication because each is considered a convenience item and not medically necessary:

1. A self-monitoring combination device that includes an ECG monitor combined with a cellular telephone or other personal electronic device
2. Additional software or hardware required for downloading ECG data to a device such as personal computer, smart phone, or tablet

HMO, PPO, Individual Marketplace, Elite

Long-term Continuous (>48 hours) External Cardiac Monitoring Device
Paramount covers an external continuous (>48 hours) cardiac monitoring device (CPT codes 0295T-0298T) when ALL of the following criteria are met:

1. 18 years of age or older
2. Evaluation of syncope, near-syncope or palpitations
3. Holter monitoring or telemetry monitoring during hospitalization within the last 60 days fails to establish a definite diagnosis because symptoms occur so infrequently or unpredictably and therefore prolonged testing is necessary
4. Not utilized in the presence of an external cardiac defibrillator, pacemaker or neurostimulator

Advantage

Long-term Continuous (>48 hours) External Cardiac Monitoring Device
An external continuous (>48 hours) cardiac monitoring device (CPT codes 0295T-0298T) is non-covered per Ohio Department of Medicaid guidelines.

CODING/BILLING INFORMATION
The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection criteria that must be met. Payment for supplies may be included in payment for other services rendered.

CPT CODES
Interpretation when performed and intraoperative interrogation and programming of epicardial electrodes (includes device and electrodes).

Insertion or removal and replacement of intracardiac ischemia monitoring system including imaging supervision and storage; review and interpretation when performed and intraoperative interrogation and programming of epicardial electrodes (includes device and electrodes).

External electrocardiographic recording for more than 48 hours up to 21 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, physician analysis, review and interpretation.

External electrocardiographic recording for more than 48 hours up to 21 days by continuous rhythm recording and storage; includes transmission, analysis, review and interpretation of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, physician analysis, review and report.

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 emergent data reports.

External mobile cardiovascular telemetry with electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days; 24-hour attended monitoring; recording includes transmission, analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and emergent data reports.

External patient and, when performed, automated interrogation and programming when performed; complete system.

Programmed heart rhythm data analysis, remote data acquisition, receipt of transmissions and technician review, technical support and distribution of results.

Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system or recorded heart rhythm data, physician analysis, review(s) and report(s).

External patient selected events transmitted to a remote attended surveillance center for up to 30 days; technical support for selected events and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and emergent data reports.

External mobile cardiovascular telemetry with electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days; 24-hour attended monitoring; includes transmission, analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and emergent data reports.

External mobile cardiovascular telemetry with electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days; 24-hour attended monitoring; includes transmission, analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and emergent data reports.
0305T  Programming device evaluation (in person) of intracardiac ischemia monitoring system with iterative adjustment of programmed values, with analysis, review, and report
0306T  Interrogation device evaluation (in person) of intracardiac ischemia monitoring system with analysis, review, and report
0307T  Removal of intracardiac ischemia monitoring device

HCPCS CODES
E0616  Implantable cardiac event recorder with memory, activator and programmer

**TAWG REVIEW DATES:** 05/18/2011, 06/15/2011, 08/10/2011, 07/11/2012, 08/14/2013, 07/18/2014

**REVISION HISTORY EXPLANATION**
11/01/11: Updated to combine PG-0122, PG-0222, PG-0223
07/18/14: Codes removed 93279, 93280, 93281, 93282, 93283, 93284, 93286, 93287, 93288, 93289, 93292, 93293, 93294, 93295, 93296. Added codes 0295T—0298T, 0302T—0307T. TAWG committee determined that Mobile Cardiac Outpatient Telemetry will now be covered without prior authorization for all product lines. Medical Policy Steering Committee will do future reviews for Mobile Cardiac Outpatient Telemetry. Policy reviewed and updated to reflect most current clinical evidence per TAWG.

**REFERENCES/RESOURCES**
Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services
Ohio Department of Medicaid [http://jfs.ohio.gov/](http://jfs.ohio.gov/)
Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets
Industry Standard Review
Hayes, Inc.