

## **Mobile Cardiac Outpatient Telemetry™ (MCOT™) and Real-time Continuous Attended Cardiac Monitoring Systems**

**MPM 13.2**

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**Disclaimer** Refer to the member's specific benefit plan and *Schedule of Benefits* to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

**Description** Real-time continuous attended cardiac monitoring systems, such as Mobile Cardiac Outpatient Telemetry™ (MCOT™), are defined as a real-time, outpatient cardiac monitoring system that is automatically activated and requires no patient intervention to either capture or transmit an arrhythmia when it occurs. Upon arrhythmia detection, the device utilizes the standard telephone line or wireless communications and transmits the electrocardiogram (EKG) waveform to the receiving center. The patient's physician is made aware of arrhythmias based on pre-determined notification criteria, tailored to the patient by the physician. Real-time cardiac monitoring overcomes limitations of Holter monitors and patient-activated event recorders by providing continuous outpatient EKG monitoring for periods ranging up to several weeks.<sup>2,3</sup>

**Other related Medical Policies:**

- Milliman Care Guidelines®, ACG A-0120(AC). Holter Monitor (24-hour to 48-hour Continuous Monitoring).
- Milliman Care Guidelines®, ACG A-0121(AC). Loop Recorder (Cardiac Event Monitor), Non-Implantable.
- Milliman Care Guidelines®, ACG A-0122(AC). Loop Recorder (Cardiac Event Monitor), Implantable.

Please contact Health Services for a copy of the Milliman Care Guidelines® at (505) 923-5757 or 1-888-923-5757, Monday through Friday from 8:00 a.m. to 5:00 p.m.

**Coverage Determination** **Benefit Certification is required. Log on to Pres Online to submit a request: <https://ds.phs.org/preslogin/index.jsp>**

Real-time continuous attended cardiac monitoring systems (including MCOT™) are not indicated for use as a screening tool or for patients with mild to moderate symptoms of "palpitations" or "weakness."<sup>3</sup>

Real-time continuous attended cardiac monitoring systems (including MCOT™) are covered when **all** of the following criteria are met.

- A cardiologist is treating the patient and is the ordering physician;  
**and**

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- A Holter monitor study is nondiagnostic or symptoms occur so infrequently that an arrhythmia is unlikely to be diagnosed by Holter monitor;<sup>3</sup> **and**
- The monitoring system has 24-hour attended coverage, which means an EKG technician (or other trained personnel) must be at a monitoring site or central data center, receiving calls and/or EKG data. Please note: tape recording devices do not meet this requirement. The technician must have immediate, 24-hour access to a physician to review the transmitted data and make clinical decisions regarding the patient. The technician should also be instructed as to when and how to contact available facilities to assist the patient in case of emergencies;<sup>1</sup> **and**
- **One** of the following conditions must be met:
  - Detect, characterize and document symptomatic transient arrhythmias. <sup>1</sup> Examples of symptoms include syncope, dizziness, chest pain, palpitations or shortness of breath; **or**
  - Initiate, revise or discontinue antiarrhythmic drug therapy;<sup>1</sup> **or**
  - The patient has had an ablation procedure for arrhythmia;<sup>4</sup> **or**
  - Carry out early post-hospital monitoring of patients discharged after myocardial infarction.<sup>1</sup>

### Contraindications

Patients with potentially life-threatening arrhythmias who require inpatient monitoring are not appropriate candidates for real-time continuous attended cardiac monitoring systems.<sup>3</sup>

### Exclusions

The time-sampling mode of operation of ambulatory EKG cardiac event monitoring/recording is not a covered indication. <sup>1</sup>

### Definitions (from Milliman Care Guidelines®)

**Event loop recorders, implantable:** Also known as a cardiac event monitor, implantable loop recorders are 24-hour continuous recorders implanted subcutaneously in the left pectoral region using local anesthesia. Batteries last up to 2 years. In contrast to external loop recorders, surface electrodes are not used, thereby avoiding a potential adherence issue. Implantable loop recorders can monitor cardiac rhythms for prolonged periods (months to even years) and can record on patient activation or automatically, based on predesignated criteria. Their value in detecting serious tachyarrhythmias and bradyarrhythmias in syncopal patients has been clearly demonstrated. (CPTs: 33282, 33284, 93285, 93290, 93291, 93297, 93298, 93299)

**Event loop recorders, non-implantable:** Loop recorders (cardiac event monitors) permit monitoring for 30 to 60 days and more. Loop

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recorders improve diagnostic yield by responding to both patient activation and automatic detection of arrhythmias. (CPTs: 93012, 93014, 93268, 93270, 93271, 93272)

**24-hour to 48-hour continuous monitoring (Holter monitor):** Holter monitors are portable devices that record the heart's rhythm continuously, generally for 24 to 48 hours. The short duration of Holter monitoring limits the diagnostic yield, thus it is most appropriate for recording episodes that occur at least every day. (CPTs: 93224, 93225, 93226, 93227, 93230, 93231, 93232, 93233, 93235, 93236, 93237)

### Coding

**The coding listed in this Medical Policy is for reference only. Covered and non-covered procedures are included in this list.**

CPT Codes	Description
93228	Wearable 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	Technical support for connection and patient instructions for use, attended surveillance, analysis and physician prescribed transmission of daily and emergent data reports.

ICD-9© Diagnosis Codes	Description
410.00 – 410.92	Acute myocardial infarction
411.1	Intermediate coronary syndrome, unstable angina
413.0 – 413.9	Angina Pectoris
426.0 – 426.9	Conduction disorders
427.0 – 427.9	Cardiac arrhythmias
780.2	Syncope and collapse
785.1	Palpitations

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<b>ICD-9© Diagnosis Codes</b>	<b>Description</b>
786.50 – 786-59	Chest Pain
V15.1	Personal history of surgery to heart and great vessels
V58.69	Long-term (current) use of other medications

**References:**

1. Centers for Medicare and Medicaid Services. National Coverage Determination for Electrocardiographic (EKG) Services (20.15). Effective Date: 8-26-04.
2. Hayes Brief. Copyright © Winifred S. Hayes, Inc. 2008. Mobile Cardiac Outpatient Telemetry (MCOT) for Home Monitoring of Cardiac Patients. April 21, 2008. Update Search March 12, 2010.
3. Centers for Medicare and Medicaid Services. Wisconsin Physicians Service Insurance Corporation. Local Coverage Determination for Electrocardiographic (EKG or ECG) Monitoring (Holter or Real-Time Monitoring) (L29584). Revision effective date: 04-19-10.
4. Centers for Medicare and Medicaid Services. Highmark Medicare Services, Inc. Local Coverage Determination for Real-Time, Outpatient Cardiac Monitoring (L27520). Revision effective date: 12-12-08.
5. HRS/EHRA/ECAS Expert Consensus Statement on Catheter and Surgical Ablation of Atrial Fibrillation: Recommendations for Personnel, Policy, Procedures and Followup. A report of the Heart Rhythm Society (HRS) Task Force on Catheter and Surgical Ablation of Atrial Fibrillation. Developed in partnership with the European Heart Rhythm Association (EHRA) and the European Cardiac Arrhythmia Society (ECAS), in collaboration with the American College of Cardiology (ACC), American Heart Association (AHA) and the Society of Thoracic Surgeons (STS). Heart Rhythm, Vol 4, No. 6, June 2007.
6. Milliman Care Guidelines®. Ambulatory Care, 14<sup>th</sup> Edition. Last updated: 02-09-10.
  - ACG A-0120(AC) Holter Monitor (24-hour to 48-hour Continuous Monitoring)
  - ACG A-0121(AC). Loop Recorder (Cardiac Event Monitor), Non-Implantable.
  - ACG A-0122(AC). Loop Recorder (Cardiac Event Monitor, Implantable).

**Reviewed by:**

1. Charles H. Karaian, MD, PMG Cardiology, Albuquerque, NM. May 2008.
2. Lawrence Nair, MD, PMG Cardiology, Albuquerque, NM. July 2010.

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**Approval Signatures:**      **Clinical Quality Committee:** \_\_\_\_\_ Mark Whitaker, MD

**Medical Director:** \_\_\_\_\_ Albert Rizzoli, MD

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This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. The Medical Policy is not a treatment guide and should not be used as such.

For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available on the Internet at:  
<http://www.phs.org/phs/healthplans/providers/healthservices/Medical/index.htm>