



## External Cardiac Monitoring

<b>LOB(s):</b> <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Medicare <input checked="" type="checkbox"/> Medicaid	<b>State(s):</b> <input checked="" type="checkbox"/> Idaho <input checked="" type="checkbox"/> Montana <input checked="" type="checkbox"/> Oregon <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Oregon <input type="checkbox"/> Washington
--	---

### Enterprise Policy

Clinical Guidelines are written when necessary to provide guidance to providers and members in order to outline and clarify coverage criteria in accordance with the terms of the Member's policy. This Clinical Guideline only applies to PacificSource Health Plans, PacificSource Community Health Plans, and PacificSource Community Solutions in Idaho, Montana, Oregon, and Washington. Because of the changing nature of medicine, this list is subject to revision and update without notice. This document is designed for informational purposes only and is not an authorization or contract. Coverage determinations are made on a case-by-case basis and subject to the terms, conditions, limitations, and exclusions of the Member's policy. Member policies differ in benefits and to the extent a conflict exists between the Clinical Guideline and the Member's policy, the Member's policy language shall control. Clinical Guidelines do not constitute medical advice nor guarantee coverage.

### Background

External cardiac monitors are devices used by members at home in an attempt to detect and/or manage cardiac arrhythmias. This can be accomplished by a number of different external devices including, but may not be limited to, Holter monitors, patch-type monitors, event monitors or real-time monitoring known as mobile cardiac outpatient telemetry [MCOT].

#### **Holter Monitor**

A Holter monitors (also known as continuous recorders) is a battery-operated portable device that continuously records the electrical activity of the heart, via leads attached to the chest. A Holter monitor is usually worn for 24 to 48 hours but may be used longer per provider order. After completion, the monitor is returned, and the recording is analyzed by a physician to identify arrhythmias.

#### **Patch-Type Monitor**

A patch-type of monitor is a leadless, wireless recording device that provides continuous single-lead ECG data worn on the left pectoral region of the chest affixed with waterproof adhesive. It may be indicated for up to 30 days per provider order. There is a button on the patch which the member can press to mark a symptomatic episode although the patch does not require activation. At the end of the recording period the member sends the device to the physician for analysis.

#### **Event Monitor**

An event monitor (also known as an external loop monitor) is a portable device that records and stores heart rhythms continuously for up to 30 days or longer. Recording can be patient-activated when symptoms occur or automatically triggered based on a computer algorithm designed to detect

arrhythmias. These devices capture ECG data before, during and after the time of activation. Some models transmit triggered data automatically over a wireless network to a remote monitoring system.

### **Mobile Cardiac Outpatient Telemetry (MCOT)**

Mobile Cardiac Outpatient Telemetry (MCOT) provides continuous outpatient electrocardiographic monitoring in real time. MCOT uses electrodes attached to the chest, a small sensor, and mobile monitor to continuously analyze heart rhythm data. The monitor must be within 30 feet of the patient to receive signals from the device which contains continuous, real-time rhythm analysis. MCOT requires active, attended surveillance of the transmitted rhythm segments by a surveillance center technician. The technician reviews the data and notifies the physician per designated protocol.

## **Criteria**

---

### **Commercial**

**A. Holter Monitor (CPT Codes 93224, 93225, 93226, 93227)**

**Prior authorization IS NOT required.**

**B. Patch-type Monitor (CPT 93241, 93242, 93243, 93244, 93245, 93246, 93247 & 93248)**

**Prior authorization IS NOT required.**

**C. Event Monitor/External Loop Monitor (CPT Codes 93268, 93270, 93271, 93272)**

**Prior authorization IS NOT required.**

**D. Mobile Cardiac Outpatient Telemetry (MCOT) (CPT Codes 93228, 93229)**

**Prior authorization is required.**

PacificSource may consider Mobile Cardiac Outpatient Telemetry (MCOT) medically necessary when **ALL** of the following criteria are met:

1. Has completed a non-diagnostic external cardiac monitoring trial (using a Holter, patch-type or event monitor) for not less than 14 continuous days;
2. The member has **ONE** of the following conditions:
  - a. Member has symptoms suggestive of cardiac arrhythmias less frequently than once every 48 hours;
  - b. For the detection of suspected paroxysmal atrial fibrillation following cryptogenic stroke when the monitoring is intended to guide medical management with anticoagulants.

## Medicaid

PacificSource Community Solutions (PCS) follows the Oregon Health Plan (OHP) Diagnostic Procedure Codes (Procedure Group 1119) for coverage of Mobile Cardiac Outpatient Telemetry (MCOT).

## Medicare

PacificSource Medicare follows Medicare CMS Cardiac Event Detection Monitoring Local Coverage Determination (LCD) L34953.

## Coding Information

---

The following list of codes are for informational purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

- 93224 External ECG recording up to 48 hours by continuous rhythm recording and storage; includes recording, scanning analysis w/ report, review and interpretation by physician (Holter monitor)
- 93225 External ECG recording up to 48 hours by continuous rhythm recording and storage; recording (includes connection, recording, and disconnection) (Holter monitor)
- 93226 External ECG recording up to 48 hours by continuous rhythm recording and storage; scanning analysis with report (Holter monitor)
- 93227 ECG Monitor/48 hours, W/Visual Superimposition Scan; Physician Review & Interpretation (Holter 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; review and interpretation with report by a physician or other qualified health care professional (MCOT)
- 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 (MCOT)
- 93241 External electrocardiograph record more than 48 hours up to 7 days by continuous rhythm recording & storage; include recording, scanning analysis w/ report, review & interpretation
- 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
- 93245 External electrocardiographic recording more than 7 days up to 15 days by continuous rhythm recording & storage; incl recording, scanning analysis w/report, review & 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)
- 93247 External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; scanning analysis with report
- 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 (Event monitor)
- 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) (Event monitor)
- 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 (Event monitor)
- 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 (Event monitor)

CPT® codes, descriptions and materials are copyrighted by the American Medical Association (AMA).

HCPCS® codes, descriptions and materials are copyrighted by Centers for Medicare and Medicaid Services (CMS).

## Definitions

---

**Atrial fibrillation** – cardiac arrhythmia characterized by rapid uncoordinated contractions of the atria of the heart that can lead to blood clots, stroke, heart failure and other heart-related complications.

**Attended Surveillance** - immediate availability of a remote technician to respond to rhythm or device alert transmissions from a monitoring device, as they are generated and transmitted to the remote surveillance location or center.

**Cardiac arrhythmia** – Abnormal heart rhythms which may be classified as either atrial or ventricular, depending on the origin in the heart. Individuals with arrhythmias may experience a wide variety of symptoms ranging from palpitations to fainting.

**Cryptogenic stroke** – Cerebral infarction that despite evaluation is not attributable to other well-established singular etiologies including cardioembolism, large artery atherosclerosis, or thromboembolism, or small vessel occlusion.

**Holter monitor** – A widely used noninvasive test in which an EKG is continuously recorded over an extended time period, usually 24 to 48 hours, to evaluate symptoms of cardiac arrhythmias, such as palpitations, dizziness, or syncope.

**Syncope** – A presentation of an abrupt, transient, complete loss of consciousness, that is associated with the inability to maintain postural tone, with a quick and spontaneous recovery.

## References

---

Cardiac event detection monitoring. CMS.gov Centers for Medicare & Medicaid Services. (n.d.). Retrieved January 12, 2023, from <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=34953>

Food and Drug Administration (FDA). (February 1, 2002). The CardioNet ECG Monitor (Model 1001) with Arrhythmia Detection. Available at: [https://www.accessdata.fda.gov/cdrh\\_docs/pdf/K012241.pdf](https://www.accessdata.fda.gov/cdrh_docs/pdf/K012241.pdf)

Miller, D. J., Khan, M. A., Schultz, L. R., Simpson, J. R., Katramados, A. M., Russman, A. N., & Mitsias, P. D. (2013). Outpatient cardiac telemetry detects a high rate of atrial fibrillation in cryptogenic stroke. *Journal of the neurological sciences*, 324(1-2), 57–61.

Mittal, S., Movsowitz, C., & Steinberg, J. S. (2011). Ambulatory external electrocardiographic monitoring: focus on atrial fibrillation. *Journal of the American College of Cardiology*, 58(17), 1741–1749.

National Institute for Health and Care Excellence (NICE). (2021). NICE guideline [NG196]. Atrial fibrillation: diagnosis and management.

Rosenberg, M. A., Samuel, M., Thosani, A., & Zimetbaum, P. J. (2013). Use of a noninvasive continuous monitoring device in the management of atrial fibrillation: a pilot study. *Pacing and clinical electrophysiology : PACE*, 36(3), 328–333.

Sanna, T., Diener, H. C., Passman, R. S., Di Lazzaro, V., Bernstein, R. A., Morillo, C. A., Rymer, M. M., Thijs, V., Rogers, T., Beckers, F., Lindborg, K., Brachmann, J., & CRYSTAL AF Investigators (2014). Cryptogenic stroke and underlying atrial fibrillation. *The New England journal of medicine*, 370(26), 2478–2486.

Shen, W. K., Sheldon, R. S., Benditt, D. G., Cohen, M. I., Forman, D. E., Goldberger, Z. D., Grubb, B. P., Hamdan, M. H., Krahn, A. D., Link, M. S., Olshansky, B., Raj, S. R., Sandhu, R. K., Sorajja, D., Sun, B. C., & Yancy, C. W. (2017). 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society. *Journal of the American College of Cardiology*, 70(5), e39–e110.

Steinberg, J. S., Varma, N., Cygankiewicz, I., Aziz, P., Balsam, P., Baranchuk, A., Cantillon, D. J., Dilaveris, P., Dubner, S. J., El-Sherif, N., Krol, J., Kurpesa, M., La Rovere, M. T., Lobodzinski, S. S., Locati, E. T., Mittal, S., Olshansky, B., Piotrowicz, E., Saxon, L., Stone, P. H., ... Piotrowicz, R. (2017). 2017 ISHNE-HRS expert consensus statement on ambulatory ECG and external cardiac monitoring/telemetry. *Heart rhythm*, 14(7), e55–e96.

## Appendix

---

**Policy Number:**

**Effective:** 6/4/2020

**Next review:** 3/1/2024

**Policy type:** Enterprise

**Author(s):**

**Depts:** Health Services

**Applicable regulation(s):**

**Commercial Ops:** 1/2023

**Government Ops:** 2/2023