# Cohere Medical Policy - External Wearable Devices

*Clinical Guidelines for Medical Necessity Review*

**Version:** 4
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# Important Notices

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## Other Notices:



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## Guideline Information:

**Specialty Area:** Cardiovascular Disease
**Guideline Name:** Cohere Medical Policy - External Wearable Devices

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**Type:** [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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# Medical Necessity Criteria

***Service: External Wearable Devices***

## Recommended Clinical Approach

External wearable devices are recommended for patients with palpitations, syncope, presyncope, transient dizziness, lightheadedness, or heart failure symptoms[1]. The most appropriate device is selected based on clinical history (including symptom frequency and suspected duration of the episodes), physical exam, and 12-lead electrocardiogram (ECG). Daily symptoms may be evaluated using a 24-48 hour Holter monitor. Less frequent or asymptomatic events are more likely to be captured with extended monitoring such as a 30-day loop recorder/event monitor, extended-wear continuous ECG patch device, or mobile cardiac telemetry (MCT). Consideration of the patient's ability to trigger a device effectively may guide device selection in favor of those with more passive event recording capability.[2,3]

## Medical Necessity Criteria

### Indications

- ➔ An **external wearable device** is considered appropriate if **ANY** of the following is **TRUE**[2-4]:
  - ◆ A Holter monitor if the patient has experienced symptoms at least once per 48 hours, including **ANY** of the following:
    - Palpitations; **OR**
    - Syncope; **OR**
    - Presyncope; **OR**
    - Transient dizziness; **OR**
    - Transient lightheadedness; **OR**
    - Heart failure symptoms; **OR**
    - Confusional state thought to be related to cerebral hypoperfusion; **OR**
  - ◆ A 30-day event monitor or an extended-wear continuous ECG patch monitor if the patient has experienced symptoms at least once per 21 days, including **ANY** of the following:

- Palpitations; **OR**
- Syncope; **OR**
- Presyncope; **OR**
- Transient dizziness; **OR**
- Transient lightheadedness; **OR**
- Heart failure symptoms; **OR**
- Confusional state thought to be related to cerebral hypoperfusion; **OR**

◆ Mobile cardiac telemetry (MCT) is considered appropriate if **ALL** of the following are **TRUE**:

- The patient wore an event monitor or extended-wear continuous ECG patch monitor for at least 14 days without any diagnostic findings; **AND**
- **ANY** of the following is **TRUE**:
  - Recurrent, unexplained syncope; **OR**
  - Suspected atrial fibrillation (AF) in a patient with cryptogenic stroke, where anticoagulation will be implemented if diagnosed; **OR**
  - Suspected ventricular arrhythmias that would require immediate intervention.

### Non-Indications

➔ An **external wearable device** is not considered appropriate if **ANY** of the following is **TRUE**[5-6]:

◆ Symptoms are suggestive of angina or clinically significant coronary artery obstruction, and monitoring would delay other needed testing or intervention[5]; **OR**

◆ The patient has an implantable cardiac device capable of acquiring clinical data of a similar or equivalent quality to an external cardiac monitor; **OR**

◆ The patient requires acute treatment for an arrhythmia; **OR**

◆ Mobile cardiac telemetry (MCT) is not considered appropriate if MCT has already been used once in the last 6 months.

## Level of Care Criteria

Outpatient

## Procedure Codes (CPT/HCPCS)

| CPT/HCPCS Code | Code Description |
|---|---|
| **Holter Monitoring** | |
| 93224 | External electrocardiographic recording up to 48 hours by continuous rhythm recording and storage; includes recording, scanning analysis with report, review and interpretation by a physician or other qualified healthcare professional |
| 93225 | External electrocardiographic recording up to 48 hours by continuous rhythm recording and storage; recording (includes connection, recording, and disconnection) |
| 93226 | External electrocardiographic recording up to 48 hours by continuous rhythm recording and storage; scanning analysis with report |
| 93227 | External electrocardiographic recording up to 48 hours by continuous rhythm recording and storage; review and interpretation by a physician or other qualified healthcare professional |
| **Extended-Wear Patch Monitor/Long-Term Continuous Cardiac Rhythm Monitors** | |
| 93241 | External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, review and 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 |

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|---|---|
| | 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 for more than 7 days up to 15 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, 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) |
| 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 |
| **Event Monitors** | |
| 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 healthcare 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) |

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|---|---|
| 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 healthcare professional |
| **Mobile Cardiac Telemetry (MCT)** | |
| 93228 | Other qualified health care professionals review and interpretation with report of external mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real-time data analysis, and greater than 24 hours of accessible electrocardiogram (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 |
| 93229 | Technical support for connection and patient instructions for use, attended surveillance for up to 30 days, analysis and other qualified health care professional prescribed transmission of daily and emergent data reports of external mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real-time data analysis, and greater than 24 hours of accessible electrocardiogram (ECG) data storage (retrievable with query) with ECG triggered and patient selected events transmitted to a remote attended surveillance center |

# Medical Evidence

Joglar et al. (2023) discussed the guidelines for the diagnosis and management of atrial fibrillation by the American College of Cardiology (ACC), American Heart Association (AHA), American College of Clinical Pharmacy (ACCP), and the Heart Rhythm Society (HRS). Key clinical trials were also included. The EMBRACE (30-Day Event Monitoring Belt for Recording Atrial Fibrillation After a Cerebral Ischemic Event) trial included 572 randomized patients aged 55 years or older who had a recent transient ischemic attack (TIA) or cryptogenic stroke. The patients were randomized and received either a 30-day external loop recorder (ELR) or conventional 24-hour Holter monitoring. At 90-day follow-up, detection of atrial fibrillation (AF) was higher with extended monitoring.[7]

In addition, Joglar et al. (2023) discussed the CRYSTAL-AF (Cryptogenic Stroke and Underlying AF) trial that included 441 patients aged 40 or older with recent TIA or cryptogenic stroke. Patients were randomized to receive cardiac monitoring with conventional follow-up ECGs or an implantable loop recorder (ILR). Detection of AF was higher with recorders than ECG at 6 months (8.9% versus 1.4%), 12 months (12.4% versus 2.0%), and 3 years (30% versus 3%).[7]

Buck et al. (2021) reported on the PER DIEM randomized control trial (RCT), which compared the efficacy of 12 months of ILR monitoring to 30 days of conventional ELR monitoring in detecting AF or atrial flutter in patients with a recent ischemic stroke. A total of 300 patients were included who had an ischemic stroke within 6 months and did not have known AF. Three hundred participants were randomly equally assigned to ILR monitoring or ELR monitoring. Follow-up visits occurred at 30 days, 6 months, and 12 months. Implantable electrocardiographic monitoring for 12 months, compared to prolonged external monitoring for 30 days, detected a more significant proportion of patients with AF over 12 months among those with ischemic stroke and no prior evidence of AF. Further research is needed to assess clinical outcomes and cost-effectiveness associated with these monitoring strategies.[8]

Kusumoto et al. (2019) cite support from the American College of Cardiology (ACC), the American Heart Association (AHA), and the Heart Rhythm Society

(HRS) for the use of external wearable devices for temporary pacing scenarios. This includes short-term cardiac pacing support during surgery or in the acute setting of a cardiac event. External monitors are typically selected as the primary diagnostic tools to seek potential correlations between bradycardia and symptoms.[1]

# References


1. Kusumoto FM, Schoenfeld MH, Barrett CN, et al. 2018 ACC/AHA/HRS guideline on the evaluation and management of patients with bradycardia and cardiac conduction delay: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society. *J Am Coll Cardiol*. 2019 Aug 20;74(7):e51-e156. doi: 10.1016/j.jacc.2018.10.044. PMID: 30412709.
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5. Wexler RK, Pleister A, Raman SV. Palpitations: Evaluation in the primary care setting. *Am Fam Physician*. 2017 Dec 15;96(12):784-789. PMID: 29431371.
6. Gale CP, Camm AJ. Assessment of palpitations. *BMJ*. 2016 Jan 6;352:h5649. doi: 10.1136/bmj.h5649. PMID: 26739319.
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8. Buck BH, Hill MD, Quinn FR, et al. Effect of implantable vs prolonged external electrocardiographic monitoring on atrial fibrillation detection in patients with ischemic stroke: The PER DIEM randomized clinical trial. *JAMA*. 2021 Jun 1;325(21):2160-2168. doi: 10.1001/jama.2021.6128. PMID: 34061146; PMCID: PMC8170545.

# Clinical Guideline Revision History/Information

| Original Date: November 29, 2022 | | |
|---|---|---|
| **Review History** | | |
| Version 2 | 9/26/2023 | |
| Version 3 | 12/29/2023 | |
| Version 4 | 1/9/2025 | • Annual review.<br>• No changes to medical necessity criteria or procedure codes.<br>• Reviewed boolean logic.<br>• Literature review - Medical Evidence section updated (including references). |
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