

# Electrocardiographic Services (NCD 20.15)

Guideline Number: MPG088.06  
Approval Date: November 11, 2020

[Terms and Conditions](#)

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<p><b>Related Medicare Advantage Policy Guideline</b></p> <ul style="list-style-type: none"> <li><a href="#">Long-Term Wearable Electrocardiographic Monitoring</a></li> </ul>
<p><b>Related Medicare Advantage Reimbursement Policies</b></p> <ul style="list-style-type: none"> <li><a href="#">Professional/Technical Component, Professional</a></li> <li><a href="#">Time Span Codes Policy, Professional</a></li> </ul>
<p><b>Related Medicare Advantage Coverage Summary</b></p> <ul style="list-style-type: none"> <li><a href="#">Cardiovascular Diagnostic Procedures</a></li> </ul>

## Policy Summary

[See Purpose](#)

### Overview

An electrocardiogram (EKG) is a graphic representation of electrical activity within the heart. Electrodes placed on the body in predetermined locations sense this electrical activity, which is then recorded by various means for review and interpretation. EKG recordings are used to diagnose a wide range of heart disease and other conditions that manifest themselves by abnormal cardiac electrical activity.

EKG services are covered diagnostic tests when there are documented signs and symptoms or other clinical indications for providing the service. Coverage includes the review and interpretation of EKGs only by a physician. There is no coverage for EKG services when rendered as a screening test or as part of a routine examination unless performed as part of the one-time, "Welcome to Medicare" preventive physical examination under section 611 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Ambulatory electrocardiography (AECG) refers to services rendered in an outpatient setting over a specified period of time, generally while a patient is engaged in daily activities, including sleep. AECG devices are intended to provide the physician with documented episodes of arrhythmia, which may not be detected using a standard 12-lead EKG. AECG is most typically used to evaluate symptoms that may correlate with intermittent cardiac arrhythmias and/or myocardial ischemia. Such symptoms include syncope, dizziness, chest pain, palpitations, or shortness of breath. Additionally, AECG is used to evaluate patient response to initiation, revision, or discontinuation of arrhythmic drug therapy.

The Centers for Medicare & Medicaid Services (CMS), through the national coverage determination (NCD) process, may create new ambulatory EKG monitoring device categories if published, peer-reviewed clinical studies demonstrate evidence of improved clinical utility, or equal utility with additional advantage to the patient, as indicated by improved patient management and/or improved health outcomes in the Medicare population (such as superior ability to detect serious or life-threatening arrhythmias) as compared to devices or services in the currently described categories below.

### Descriptions of Ambulatory EKG Monitoring Technologies

Dynamic electrocardiography devices that continuously record a real-time EKG, commonly known as Holter™ monitors, typically record over a 24-hour period. The recording is captured either on a magnetic tape or other digital medium. The data is

then computer-analyzed at a later time, and a physician interprets the computer generated report. A 24-hour recording is generally adequate to detect most transient arrhythmias. Documentation of medical necessity is required for monitoring longer than 24 hours. The recording device itself is not covered as durable medical equipment (DME) separate from the total diagnostic service.

An event monitor, or event recorder, is a patient-activated or event-activated EKG device that intermittently records cardiac arrhythmic events as they occur. The EKG is recorded on magnetic tape or other digital medium.

Cardiac event monitor technology varies among different devices. For patient-activated event monitors, the patient initiates recording when symptoms appear or when instructed to do so by a physician (e.g., following exercise). For self-sensing, automatically triggered monitors, an EKG is automatically recorded when the device detects an arrhythmia, without patient intervention. Some devices permit a patient to transmit EKG data transtelephonically (i.e., via telephone) to a receiving center where the data is reviewed. A technician may be available at these centers to review transmitted data 24-hours per day. In some instances, when the EKG is determined to be outside certain preset criteria by a technician or other non-physician, a physician is available 24-hours per day to review the transmitted data and to make clinical decisions regarding the patient. These services are known as "24-hour attended monitoring". In other instances, transmitted EKG data is reviewed at a later time and are, therefore, considered "nonattended."

Cardiac event monitors without transtelephonic capability must be removed from the patient and taken to a location for review of the stored EKG data. Some devices also permit a "time sampling" mode of operation. The "time sampling" mode is not covered under ambulatory EKG monitoring technology. Some cardiac event monitoring devices with transtelephonic capabilities require the patient to dial the phone number of a central EKG data reception center and initiate transmission of EKG data. Other devices use Internet-based in-home computers to capture and store EKG data. When such devices detect pre-programmed arrhythmias, data is automatically sent via modem and standard telephone lines to a central receiving center, or independent diagnostic testing facility (IDTF), where the data is reviewed. Internet-based in-home computer systems may also provide the receiving center with a daily computer-generated report that summarizes 24 hours of EKG data.

Certain cardiac event monitors capture electrical activity with a single electrode attached to the skin. Other devices may employ multiple electrodes in order to record more complex EKG tracings. Additionally, devices may be individually programmed to detect patient-specific factors, electrode malfunction, or other factors. Cardiac event monitors can be further categorized as either "pre-event" or "post-event" recorders, based on their memory capabilities.

### ***Pre-Symptom Memory Loop Recorder (MLR)***

Upon detecting symptoms, the wearer presses a button, which activates the recorder to save (i.e., memorize) an interval of pre-symptom EKG data along with data during and subsequent to the symptomatic event. Self-sensing recorders (also known as event activated or automatic trigger) do not require patient input to capture these data. Single or multiple events may be recorded. The device is worn at all times, usually for up to 30 days.

### ***Implantable (or Insertable Loop) Recorder (ILR)***

Another type of pre-symptom MLR, it is implanted subcutaneously in a patient's upper left chest and may remain implanted for many months. An ILR is used when syncope is thought to be cardiac-related, but is too infrequent to be detected by either a Holter™ Monitor or a traditional pre-symptom MLR.

### ***Post-Symptom Recorder***

The patient temporarily places this device against the chest when symptoms occur and activates it by pressing a button. These recorders represent old technology, as they do not include a memory loop. The device transmits EKG data telephonically in real-time and is usually used for up to 30 days.

## **Indications and Limitations of Coverage**

### ***Nationally Covered Indications***

The following indications are covered nationally unless otherwise indicated:

- Computer analysis of EKGs when furnished in a setting and under the circumstances required for coverage of other EKG services.

- EKG services rendered by an independent diagnostic testing facility (IDTF), including physician review and interpretation. Separate physician services are not covered unless he/she is the patient's attending or consulting physician.
- Emergency EKGs (i.e., when the patient is or may be experiencing a life threatening event) performed as a laboratory or diagnostic service by a portable x-ray supplier only when a physician is in attendance at the time the service is performed or immediately thereafter.
- Home EKG services with documentation of medical necessity.
- Transtelephonic EKG transmissions as a diagnostic service for the indications described below, when performed with equipment meeting the standards described below, subject to the limitations and conditions specified below. Coverage is further limited to the amounts payable with respect to the physician's service in interpreting the results of such transmissions, including charges for rental of the equipment. The device used by the beneficiary is part of a total diagnostic system and is not considered DME separately. Covered uses are to:
  - Detect, characterize, and document symptomatic transient arrhythmias;
  - Initiate, revise, or discontinue arrhythmic drug therapy; or,
  - Carry out early post-hospital monitoring of patients discharged after myocardial infarction (MI); (only if 24-hour coverage is provided, see below).

Certain uses other than those specified above may be covered if, in the judgment of UnitedHealthcare, such use is medically necessary.

Additionally, the transmitting devices must meet at least the following criteria:

- They must be capable of transmitting EKG Leads, I, II, or III; and,
- The tracing must be sufficiently comparable to a conventional EKG.

24-hour attended coverage used as early post-hospital monitoring of patients discharged after MI is only covered if provision is made for such 24-hour attended coverage in the manner described here: 24-hour attended coverage means there must be, at a monitoring site or central data center, an EKG technician or other non-physician, receiving calls and/or EKG data; tape recording devices do not meet this requirement. Further, such technicians should have immediate, 24-hour access to a physician to review 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.

### ***Nationally Non-Covered Indications***

The following indications are non-covered nationally unless otherwise specified below:

- The time-sampling mode of operation of ambulatory EKG cardiac event monitoring/recording.
- Separate physician services other than those rendered by an IDTF unless rendered by the patient's attending or consulting physician.
- Home EKG services without documentation of medical necessity.
- Emergency EKG services by a portable x-ray supplier without a physician in attendance at the time of service or immediately thereafter.
- 24-hour attended coverage used as early post-hospital monitoring of patients discharged after MI unless provision is made for such 24-hour attended coverage in the manner described above.
- Any marketed Food and Drug Administration (FDA)-approved ambulatory cardiac monitoring device or service that cannot be categorized according to the framework below.

### ***Other***

Ambulatory cardiac monitoring performed with a marketed, FDA-approved device, is eligible for coverage if it can be categorized according to the framework below. Unless there is a specific NCD for that device or service, determination as to whether a device or service that fits into the framework is reasonable and necessary is according to UnitedHealthcare discretion.

## Electrocardiographic Services Framework

Patient/Event-Activated Intermittent Recorders	/	Pre-symptom memory loop	<	Attended
	\	o Insertable o Non-insertable	—	Non-attended
	—	Post-symptom (no memory loop)	—	Non-attended
Non-Activated Continuous Recorders		Dynamic Electrocardiography (e.g., Holter™ Monitor)		Non-attended

(This NCD last reviewed December 2004.)

## Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

Coding Clarifications: For diagnosis codes, see related Local Coverage Determinations.

CPT Code	Description
93000	Electrocardiogram, routine ECG with at least 12 leads; with interpretation and report
93005	Electrocardiogram, routine ECG with at least 12 leads; tracing only, without interpretation and report
93010	Electrocardiogram, routine ECG with at least 12 leads; interpretation and report only
93040	Rhythm ECG, 1-3 leads; with interpretation and report
93041	Rhythm ECG, 1-3 leads; tracing only without interpretation and report
93042	Rhythm ECG, 1-3 leads; interpretation and report only

*CPT® is a registered trademark of the American Medical Association*

## Questions and Answers

1	Q:	Are CPT codes 93000, 93005, and/or 93010 applicable to EKG services performed as part of the one-time, "Welcome to Medicare" preventive physical examination under section 611 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003?
	A:	No, there are separate HCPCS codes used to represent EKG services performed as a screening for the initial preventive physical examination.

## References

### CMS National Coverage Determinations (NCDs)

[NCD 20.15 Electrocardiographic Services](#)

## CMS Local Coverage Determinations (LCDs) and Articles

LCD	Article	Contractor	Medicare Part A	Medicare Part B
<a href="#">L33669 Electrocardiography</a>	<a href="#">A57066 Billing and Coding: Electrocardiography</a> A55350 2017 ICD-10-CM Coding Changes Part B Retired 12/06/2019	First Coast	FL, PR, VI	FL, PR, VI
<a href="#">L37283 Electrocardiograms</a>	<a href="#">A57327 Billing and Coding: Electrocardiograms</a>	Noridian	AK, AZ, ID, OR, MT, ND, SD, UT, WA, WY	AK, AZ, ID, OR, MT, ND, SD, UT, WA, WY
<a href="#">L34315 Electrocardiograms</a>	<a href="#">A57326 Billing and Coding: Electrocardiograms</a>	Noridian	AS, CA, GU, HI, MP, NV	AS, CA, GU, HI, MP, NV
L33629 Non-covered Services Retired 07/01/2020	A57812 Billing and Coding: Non-Covered Services Retired 07/01/2020	NGS	CT, IL, MA, ME, MN, NH, NY, RI, VT, WI	CT, IL, MA, ME, MN, NH, NY, RI, VT, WI

## CMS Benefit Policy Manual

[Chapter 6: § 20.3 Encounter Defined](#)

[Chapter 15: § 80 Coverage of diagnostic x-ray, diagnostic laboratory and other diagnostic tests, § 190 Physician Assistant \(PA\) Services, § 200 Nurse Practitioner \(NP\) Services, § 250 Medical and Other Health Services Furnished to Inpatients of Hospitals and Skilled Nursing Facilities](#)

## CMS Claims Processing Manual

[Chapter 12: § 20.3\(E\) Bundled Services/Supplies \(EKG Interpretations\)](#)

[Chapter 13: § 100.1 X-rays and EKGs Furnished to Emergency Room Patients](#)

[Chapter 23: § 20.9.1 Correct Coding Modifier Indicators and HCPCS Codes Modifiers](#)

## UnitedHealthcare Commercial Policy

[Cardiac Event Monitoring](#)

## Guideline History/Revision Information

Revisions to this summary document do not in any way modify the requirement that services be provided and documented in accordance with the Medicare guidelines in effect on the date of service in question.

Date	Summary of Changes
04/01/2021	<p><b>Template Update</b></p> <ul style="list-style-type: none"> <li>Reformatted policy; transferred content to new template</li> </ul>
11/11/2020	<p><b>Related Policies</b></p> <ul style="list-style-type: none"> <li>Updated list of related Medicare Advantage Reimbursement Policies: <ul style="list-style-type: none"> <li>Added reference link to the policy titled <i>Professional/Technical Component, Professional</i></li> <li>Removed reference link to the policy titled <i>Multiple Procedure Payment Reduction (MPPR) on Diagnostic Cardiovascular and Ophthalmology Procedures Policy, Professional</i></li> </ul> </li> </ul> <p><b>Applicable Codes</b></p> <ul style="list-style-type: none"> <li>Removed CPT codes 93224, 93225, 93226, and 93227</li> </ul> <p><b>Questions and Answers</b></p> <ul style="list-style-type: none"> <li>Added Q&amp;A addressing CPT codes used to represent EKG services performed as a screening for the initial preventive physical examination</li> </ul> <p><b>Supporting Information</b></p> <ul style="list-style-type: none"> <li>Updated <i>References</i> section to reflect the most current information</li> <li>Archived previous policy version MPG088.05</li> </ul>

## Purpose

The Medicare Advantage Policy Guideline documents are generally used to support UnitedHealthcare Medicare Advantage claims processing activities and facilitate providers' submission of accurate claims for the specified services. The document can be used as a guide to help determine applicable:

- Medicare coding or billing requirements, and/or
- Medical necessity coverage guidelines; including documentation requirements.

UnitedHealthcare follows Medicare guidelines such as NCDs, LCDs, LCAs, and other Medicare manuals for the purposes of determining coverage. It is expected providers retain or have access to appropriate documentation when requested to support coverage. Please utilize the links in the [References](#) section below to view the Medicare source materials used to develop this resource document. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

## Terms and Conditions

The Medicare Advantage Policy Guidelines are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates.

These Policy Guidelines are provided for informational purposes, and do not constitute medical advice. Treating physicians and healthcare providers are solely responsible for determining what care to provide to their patients. Members should always consult their physician before making any decisions about medical care.

Benefit coverage for health services is determined by the member specific benefit plan document\* and applicable laws that may require coverage for a specific service. The member specific benefit plan document identifies which services are covered, which are excluded, and which are subject to limitations. In the event of a conflict, the member specific benefit plan document supersedes the Medicare Advantage Policy Guidelines.

Medicare Advantage Policy Guidelines are developed as needed, are regularly reviewed and updated, and are subject to change. They represent a portion of the resources used to support UnitedHealthcare coverage decision making. UnitedHealthcare may modify these Policy Guidelines at any time by publishing a new version of the policy on this website. Medicare source materials used to develop these guidelines include, but are not limited to, CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Medicare Benefit Policy Manual, Medicare Claims Processing Manual, Medicare Program Integrity Manual, Medicare Managed Care Manual, etc. The information presented in the Medicare Advantage Policy Guidelines is believed to be accurate and current as of the date of publication and is provided on an "AS IS" basis. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

You are responsible for submission of accurate claims. Medicare Advantage Policy Guidelines are intended to ensure that coverage decisions are made accurately based on the code or codes that correctly describe the health care services provided. UnitedHealthcare Medicare Advantage Policy Guidelines use Current Procedural Terminology (CPT®), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT® or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

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\*For more information on a specific member's benefit coverage, please call the customer service number on the back of the member ID card or refer to the [Administrative Guide](#).