

# **LCD for Electrocardiographic (EKG or ECG) Monitoring (Holter or Real-Time Monitoring) (L29584)**

## **Contractor Information**

### **Contractor Name**

Wisconsin Physicians Service Insurance Corporation

### **Contractor Number**

00951, 00952, 00953, 00954, 52280, 05101, 05201, 05301, 05401, 05102, 05202, 05302, 05402

### **Contractor Type**

Carrier – MAC – FI

## **LCD Information**

### **LCD ID Number**

L29584

### **LCD Title**

Electrocardiographic (EKG or ECG) Monitoring (Holter or Real-Time Monitoring)

### **Contractor's Determination Number**

CV-016

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### **CMS National Coverage Policy**

CMS Pub. 100-3, Ch. 1-§20.15

### **Oversight Region**

Region V

### **Original Determination Effective Date**

For services performed on or after 10/16/2009

## Original Determination Ending Date

## Revision Effective Date

For services performed on or after 10/16/2009

## Revision Ending Date

## Indications and Limitations of Coverage and/or Medical Necessity

Long-Term ECG Monitoring is defined as a diagnostic procedure, which can provide continuous recording capabilities of ECG activities of the patient's heart while the patient is engaged in daily activities. These can include continuous, patient-demand or \*auto-detection devices. The purpose of these tests is to provide information about rhythm disturbances and waveform abnormalities and to note the frequency of their occurrence.

### Definitions:

Cardiac Event Detection (CED) is a 30-day service for the purpose of documentation and diagnosis of paroxysmal or suspected arrhythmias.

Holter Monitoring (24-hour ECG monitoring) is a study used to evaluate the patient's ambient heart rhythm during a full day's (24 Hours) cycle. It is a wearable EKG monitor that records the overall rhythm and significant arrhythmias.

### A. Medical Necessity:

The medical necessity indications listed in this policy must be present in order for these tests to be covered.

B. Indications for 24-hour ECG monitoring (CPT/HCPCS codes 93224-93227, 93230-93233, and 93235-93237) include one or more of the following

#### 1. Symptoms:

- a. Arrhythmias (ICD-9 codes 426.0-426.9, 427.0-427.42, 427.60-427.9)
- b. Chest pain (ICD-9 codes 411.1, 786.50, 786.51, 786.59)
- c. Syncope (lightheadedness) or near syncope (ICD-9 code 780.2)
- d. Vertigo (dizziness) (ICD-9 code 780.4)
- e. Palpitations (ICD-9 code 785.1)
- f. Transient ischemic episodes (ICD-9 codes 780.02, 781.0, 781.4)
- g. Dyspnea (shortness of breath) (ICD-9 codes 786.00-786.09)

2. Evaluation of the response to antiarrhythmic drug therapy (ICD-9 codes V58.69).

3. Evaluation of myocardial infarction (MI) survivors with an ejection fraction of 40% or less. (ICD-9 codes 410.00-410.92, 411.0, and 412).

4. Assessment of patients with coronary artery disease with active symptoms, to correlate chest pain with ST-segment changes (ICD-9 codes 413.0-413.9).

5. Other acute and subacute forms of ischemic heart disease. (411.0-411.89).

6. To detect arrhythmias post ablation procedures.

C. C. Extension of 24-hour monitoring CPT codes (93224-93227 and 93230-93237) to 48 hours will be allowed under the following conditions only:

1. To monitor initial antiarrhythmic drug therapy;
2. To monitor for arrhythmia after a change in antiarrhythmic medication; and
3. To document frequent sporadically occurring arrhythmic events of unknown nature; infrequent episodes of arrhythmia are best evaluated with longer-term ambulatory EKG technologies.
4. To better identify arrhythmias in high risk patients. (For ICD-9 codes see section B above, sentence 1.a).

D. Long term 30-day monitoring; Telephonic Transmission of ECG (CPT codes 93012-93014, 93228, 93229, and 93268-93272) involve 24 hour attended monitoring per 30 day period of time; no other EKG monitoring codes can be billed simultaneously with these codes.

Indications for performing a Telephonic Transmission:

- a. Arrhythmias (ICD-9 codes 426.0-426.9, 427.0-427.42, 427.60-427.9);
- b. Chest pain (ICD-9 codes 411.1, 786.50, 786.51, 786.59);
- c. Syncope (lightheadedness) or near syncope (ICD-9 code 780.2);
- d. Vertigo (dizziness) (ICD-9 code 780.4);
- e. Palpitations (ICD-9 code 785.1);
- f. Transient ischemic episodes (ICD-9 codes 780.02, 781.0, 781.4);
- g. Dyspnea (shortness of breath) (ICD-9 codes 786.00-786.09).
- h. To initiate, revise or discontinue arrhythmia drug therapy. (V58.69)
- i. Evaluation of myocardial infarction (MI) survivors. (ICD-9 codes 410.00-410.92, 411.0, and 412).
- j. Evaluation of acute and subacute forms of ischemic heart disease. (411.0-411.89).
- k. Assessment of patients with coronary artery disease with active symptoms, to correlate chest pain with ST-segment changes (ICD-9 codes 413.0-413.9).

### Coding Information

#### Bill Type Codes:

**Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.**

|     |   |
|-----|---|
| 13x | Hospital-outpatient (HHA-A also) (under OPPS 13X must be used for ASC claims submitted for OPPS payment -- eff. 7/00) |
| 85x | Special facility or ASC surgery-rural primary care hospital (eff 10/94)   |

#### Revenue Codes:

**Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.**

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

Revenue codes only apply to providers who bill these services to the fiscal intermediary or Part A MAC. Revenue codes do not apply to physicians, other professionals and suppliers who bill these services to the carrier or Part B MAC.

Please note that not all revenue codes apply to every type of bill code. Providers are encouraged to refer to the FISS revenue code file for allowable bill types. Similarly, not all revenue codes apply to each CPT/HCPCS code. Providers are encouraged to refer to the FISS HCPCS file for allowable revenue codes.

|      |                                |
|------|--------------------------------|
| 0489 | Cardiology-other               |
| 073X | EKG/ECG-general classification |

### CPT/HCPCS Codes

#### Post-Symptom Memory Loop Recordings

|       |   |
|-------|---|
| 93012 | TELEPHONIC TRANSMISSION OF POST-SYMPTOM ELECTROCARDIOGRAM RHYTHM STRIP(S), 24-HOUR ATTENDED MONITORING, PER 30 DAY PERIOD OF TIME; TRACING ONLY   |
| 93014 | TELEPHONIC TRANSMISSION OF POST-SYMPTOM ELECTROCARDIOGRAM RHYTHM STRIP(S), 24-HOUR ATTENDED MONITORING, PER 30 DAY PERIOD OF TIME; PHYSICIAN REVIEW WITH INTERPRETATION AND REPORT ONLY |

#### Pre-Symptom Memory Loop Recordings (Patient-Demand)

|       |   |
|-------|---|
| 93268 | WEARABLE PATIENT ACTIVATED ELECTROCARDIOGRAPHIC RHYTHM DERIVED EVENT RECORDING WITH PRESYMPTOM MEMORY LOOP, 24-HOUR ATTENDED MONITORING, PER 30 DAY PERIOD OF TIME; INCLUDES TRANSMISSION, PHYSICIAN REVIEW AND INTERPRETATION    |
| 93270 | WEARABLE PATIENT ACTIVATED ELECTROCARDIOGRAPHIC RHYTHM DERIVED EVENT RECORDING WITH PRESYMPTOM MEMORY LOOP, 24-HOUR ATTENDED MONITORING, PER 30 DAY PERIOD OF TIME; RECORDING (INCLUDES CONNECTION, RECORDING, AND DISCONNECTION) |

93271

WEARABLE PATIENT ACTIVATED  
ELECTROCARDIOGRAPHIC RHYTHM DERIVED  
EVENT RECORDING WITH PRESYMPTOM MEMORY  
LOOP, 24-HOUR ATTENDED MONITORING, PER 30  
DAY PERIOD OF TIME; MONITORING, RECEIPT OF  
TRANSMISSIONS, AND ANALYSIS

93272

WEARABLE PATIENT ACTIVATED  
ELECTROCARDIOGRAPHIC RHYTHM DERIVED  
EVENT RECORDING WITH PRESYMPTOM MEMORY  
LOOP, 24-HOUR ATTENDED MONITORING, PER 30  
DAY PERIOD OF TIME; PHYSICIAN REVIEW AND  
INTERPRETATION

Other 24-Hour Recordings

93224

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE, WITH VISUAL SUPERIMPOSITION  
SCANNING; INCLUDES RECORDING, SCANNING  
ANALYSIS WITH REPORT, PHYSICIAN REVIEW AND  
INTERPRETATION

93225

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE, WITH VISUAL SUPERIMPOSITION  
SCANNING; RECORDING (INCLUDES CONNECTION,  
RECORDING, AND DISCONNECTION)

93226

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE, WITH VISUAL SUPERIMPOSITION  
SCANNING; SCANNING ANALYSIS WITH REPORT

93227

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE, WITH VISUAL SUPERIMPOSITION  
SCANNING; PHYSICIAN REVIEW AND  
INTERPRETATION

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

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; TECHNICAL SUPPORT FOR  
CONNECTION AND PATIENT INSTRUCTIONS FOR  
USE, ATTENDED SURVEILLANCE, ANALYSIS AND  
PHYSICIAN PRESCRIBED TRANSMISSION OF DAILY  
AND EMERGENT DATA REPORTS

93230

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE WITHOUT SUPERIMPOSITION  
SCANNING UTILIZING A DEVICE CAPABLE OF  
PRODUCING A FULL MINIATURIZED PRINTOUT;  
INCLUDES RECORDING, MICROPROCESSOR-BASED  
ANALYSIS WITH REPORT, PHYSICIAN REVIEW AND  
INTERPRETATION

93231

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE WITHOUT SUPERIMPOSITION  
SCANNING UTILIZING A DEVICE CAPABLE OF  
PRODUCING A FULL MINIATURIZED PRINTOUT;  
RECORDING (INCLUDES CONNECTION, RECORDING,  
AND DISCONNECTION)

93232

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE WITHOUT SUPERIMPOSITION  
SCANNING UTILIZING A DEVICE CAPABLE OF  
PRODUCING A FULL MINIATURIZED PRINTOUT;  
MICROPROCESSOR-BASED ANALYSIS WITH REPORT

93233

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS ORIGINAL WAVEFORM RECORDING  
AND STORAGE WITHOUT SUPERIMPOSITION  
SCANNING UTILIZING A DEVICE CAPABLE OF  
PRODUCING A FULL MINIATURIZED PRINTOUT;  
PHYSICIAN REVIEW AND INTERPRETATION

93235

WEARABLE ELECTROCARDIOGRAPHIC RHYTHM  
DERIVED MONITORING FOR 24 HOURS BY  
CONTINUOUS COMPUTERIZED MONITORING AND  
NON-CONTINUOUS RECORDING, AND REAL-TIME  
DATA ANALYSIS UTILIZING A DEVICE CAPABLE OF  
PRODUCING INTERMITTENT FULL-SIZED  
WAVEFORM TRACINGS, POSSIBLY PATIENT  
ACTIVATED; INCLUDES MONITORING AND REAL-  
TIME DATA ANALYSIS WITH REPORT, PHYSICIAN  
REVIEW AND INTERPRETATION

|       |  |
|-------|--|
| 93236 | WEARABLE ELECTROCARDIOGRAPHIC RHYTHM DERIVED MONITORING FOR 24 HOURS BY CONTINUOUS COMPUTERIZED MONITORING AND NON-CONTINUOUS RECORDING, AND REAL-TIME DATA ANALYSIS UTILIZING A DEVICE CAPABLE OF PRODUCING INTERMITTENT FULL-SIZED WAVEFORM TRACINGS, POSSIBLY PATIENT ACTIVATED; MONITORING AND REAL-TIME DATA ANALYSIS WITH REPORT |
| 93237 | WEARABLE ELECTROCARDIOGRAPHIC RHYTHM DERIVED MONITORING FOR 24 HOURS BY CONTINUOUS COMPUTERIZED MONITORING AND NON-CONTINUOUS RECORDING, AND REAL-TIME DATA ANALYSIS UTILIZING A DEVICE CAPABLE OF PRODUCING INTERMITTENT FULL-SIZED WAVEFORM TRACINGS, POSSIBLY PATIENT ACTIVATED; PHYSICIAN REVIEW AND INTERPRETATION                |

### ICD-9 Codes that Support Medical Necessity

Note: ICD-9 codes must be coded to the highest level of specificity.

|                 |  |
|-----------------|--|
| 410.00 - 410.92 | ACUTE MYOCARDIAL INFARCTION OF ANTEROLATERAL WALL EPISODE OF CARE UNSPECIFIED - ACUTE MYOCARDIAL INFARCTION OF UNSPECIFIED SITE SUBSEQUENT EPISODE OF CARE |
| 411.0 - 411.89  | POSTMYOCARDIAL INFARCTION SYNDROME - OTHER ACUTE AND SUBACUTE FORMS OF ISCHEMIC HEART DISEASE OTHER  |
| 412             | OLD MYOCARDIAL INFARCTION  |
| 413.0 - 413.9   | ANGINA DECUBITUS - OTHER AND UNSPECIFIED ANGINA PECTORIS   |
| 426.0 - 426.9   | ATRIOVENTRICULAR BLOCK COMPLETE - CONDUCTION DISORDER UNSPECIFIED  |
| 427.0 - 427.42  | PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA - VENTRICULAR FLUTTER  |
| 427.60 - 427.9  | PREMATURE BEATS UNSPECIFIED - CARDIAC DYSRHYTHMIA UNSPECIFIED  |
| 780.02          | TRANSIENT ALTERATION OF AWARENESS  |
| 780.2           | SYNCOPE AND COLLAPSE   |
| 780.4           | DIZZINESS AND GIDDINESS  |
| 781.0           | ABNORMAL INVOLUNTARY MOVEMENTS   |
| 781.4           | TRANSIENT PARALYSIS OF LIMB  |
| 785.1           | PALPITATIONS   |
| 786.00 - 786.09 |  |

|        |  |
|--------|--|
|        | RESPIRATORY ABNORMALITY UNSPECIFIED -<br>RESPIRATORY ABNORMALITY OTHER |
| 786.50 | UNSPECIFIED CHEST PAIN   |
| 786.51 | PRECORDIAL PAIN  |
| 786.59 | OTHER CHEST PAIN   |
| V58.69 | LONG-TERM (CURRENT) USE OF OTHER<br>MEDICATIONS                        |

### **Diagnoses that Support Medical Necessity**

Diagnoses listed above

### **ICD-9 Codes that DO NOT Support Medical Necessity**

### **ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

### **Diagnoses that DO NOT Support Medical Necessity**

Diagnoses not listed above

## **General Information**

### **Documentation Requirements**

Medicare Part B monitors for medical necessity, which can include frequency. Documentation would include a history and physical exam. The record should document the evaluation, which focuses on the cause(s) of the presenting symptoms and/or the need for this testing. Some examples are:

1. The patient record has an evaluation and management service that documents the symptoms experienced by the patient.
2. The patient has had a full workup in the past month with initial tests performed, and presents with continuing symptoms that indicate the need for long-term monitoring;
3. The patient requires a change in antiarrhythmic medication. In this case, an assessment of the patient's complaints, the name of the medication stopped and the name of the new medication should be indicated.
4. In the case of referred tests, documentation of medical necessity may be requested from the referring physician. These are considered purchased diagnostic tests.
5. Independent diagnostic testing facilities (IDTF) and suppliers must retain records that include:
  - a. The referring physician's written orders; and
  - b. The identity of the employee setting up the tracing.

Documentation should be submitted as indicated when requested or when unusual circumstances are present. The EMC narrative may be used.

## **Appendices**

### **Utilization Guidelines**

See companion document titled Billing and Coding Guidelines for CV-016; Electrocardiographic (EKG or ECG) Monitoring (Holter or Real-Time Monitoring)

- - An asterisk indicates a revision to that section of the policy.

This LCD consolidates and replaces all previous policies and publications on this subject by the carrier and fiscal intermediary predecessors of Wisconsin Physicians Service. This coverage determination also applies within states outside the primary geographic jurisdiction that have nominated Wisconsin Physicians Service to process their claims.

This policy does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the contractor, this policy was developed in cooperation with advisory groups, which includes representatives from Cardiology.

### **Sources of Information and Basis for Decision**

Pub 100-3, Ch 1- §20.15

Final Rule, Federal Register, Dec. 31, 2002

Other Medical Carriers

### **Advisory Committee Meeting Notes**

Meeting Date

Wisconsin 01/16/2009

Illinois 01/28/2009

Michigan 01/07/2009

Minnesota 01/22/2009

Iowa, Kansas, Missouri, Nebraska 02/12/2009

Any Carrier Advisory Committee (CAC) related information, including Start date and End Date of Comment Period, reflects the last time this LCD passed through the Comment and Notice process.

### **Start Date of Comment Period**

### **End Date of Comment Period**

**Start Date of Notice Period****Revision History Number**

3

**Revision History Explanation**

09/02/2009 No change to coverage.

06/30/2009 The contractor number 05392 will no longer be valid as of 8/1/2009 as it will be joining with the WMO number.

Revision to draft 6/30/2009

**Reason for Change****Last Reviewed On Date**

05/01/2009

**Related Documents**

This LCD has no Related Documents.

**LCD Attachments**

[Coding and Billing Guidelines \(PDF - 46,046 bytes\)](#)

**All Versions**

Updated on 09/02/2009 with effective dates 10/16/2009 - N/A

Updated on 08/13/2009 with effective dates 10/16/2009 - N/A