Clinical Policy: Ambulatory Electroencephalography

Reference Number: LA.CP.MP.96 Coding Implications
Date of Last Revision: 1/2022 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Ambulatory electroencephalogram (EEG) testing in the outpatient setting (*e.g.,* at home) is a diagnostic test used to evaluate an individual in whom a seizure disorder or possibly nonepileptic attacks are suspected but not conclusively confirmed by the person's medical history, physical examination, and a previous routine or standard (awake and asleep) EEG. Ambulatory EEG monitoring allows extended interictal EEG recording outside of a clinic or a hospital and can allow patients to "mark" events experienced on the EEG recording.

Policy/Criteria

I. It is the policy of Louisiana Healthcare Connections that ambulatory EEG is medically necessary following an inconclusive or nondiagnostic standard (awake and asleep) EEG for any of the following indications:
- **A.** To investigate episodic events where epilepsy is suspected but the history, examination, and routine EEG do not resolve the diagnostic uncertainties;
- **B.** To confirm epilepsy in those individuals experiencing suspected nonepileptic events;
- **C.** To differentiate between neurological and cardiac related episodes, such as syncope;
- **D.** To characterize seizure type, such as focal versus generalized seizures, and frequency;
- **E.** To localize seizure focus for enhanced patient management;
- **F.** To evaluate seizures precipitated by naturally occurring cyclic events or environmental stimuli that are not reproducible in the hospital or clinic setting.

Note: Ambulatory EEG should always be preceded by an awake and drowsy/sleep EEG.

II. It is the policy of Louisiana Healthcare Connections that ambulatory EEG is considered not medically necessary for studies of unattended, non-cooperative patients.

Background
In most instances, a standard EEG performed at a clinic or outpatient epilepsy facility can identify brain activity specific to seizures; however, when routine EEG is inconclusive and the clinical history strongly suggests seizure activity, an ambulatory EEG may be indicated. An ambulatory EEG may increase the chance of detecting an epileptiform abnormality in these individuals and significantly impact clinical management. An estimated 12% to 25% of individuals who previously had a normal or non-diagnostic routine EEG have epileptiform activity on ambulatory EEG. [3]

Ambulatory EEG recordings can be utilized in the evaluation and differential diagnosis of other conditions, that includes syncope, if these episodes are not diagnosed by conventional studies. It may also allow an estimate of seizure frequency, which may at times help to evaluate the effectiveness of a drug and determine its appropriate dosage.

Ambulatory EEG testing provides a continuous recording of the brain's electrical activity that can range from several hours to up to a week (typically 48 hours to 72 hours). In the outpatient setting (physician office, clinic), a set of electrodes with leads is secured to the person's scalp and a digital recording unit is attached to the waist or a shoulder harness. Currently, portable recordings of up to 32 channels can record computer-assisted spike and seizure detection rates over several days. Event detection computer software is designed to increase the chance of recording an ictal event during a seizure or interictal epileptiform discharges occurring between seizures, during the person's routine daily activities and sleep. The person being tested and observers (family member/enrollees, caregiver) have the opportunity to "tag" portions of the recording during clinical events using a push button device to signal when an observable event occurs.

Coding Implications

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CPT® Codes	Description
95700	Electroencephalogram (EEG) continuous recording, with video when performed, setup, patient education, and takedown when performed, administered in person by EEG technologist, minimum of 8 channels
95705	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, 2-12 hours; unmonitored
95708	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, each increment of 12-26 hours; unmonitored
95717	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation and report, 2-12 hours of EEG recording; without video
95719	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, each increment of greater than 12 hours, up to 26 hours of EEG recording, interpretation and report after each 24-hour period; without video
95721	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation, and summary report, complete study; greater than 36 hours, up to 60 hours of EEG recording, without video

CPT® Codes	Description
95723	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation, and summary report, complete study; greater than 60 hours, up to 84 hours of EEG recording, without video
95725	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation, and summary report, complete study; greater than 84 hours of EEG recording, without video

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
F44.5	Conversion disorder with seizures or convulsions
G40.001- G40.919	Epilepsy and recurrent seizures
R25.0 – R25.8	Abnormal involuntary movements
R40.4	Transient alteration of awareness
R55	Syncope and collapse
R56.1	Post-traumatic seizures
R56.9	Unspecified convulsions

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Converted corporate to local policy.	08/15/2020	
Annual review completed. References reviewed, updated, and reformatted. Replaced all instances of member with member/enrollee. Changed "review date" in the header to "date of last revision" and "date" in the revision log header to "revision date." Background updated with no clinical significance. Specialist reviewed.	1/2022	1/2022

References

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6. Faulkner HJ, Arima H, Mohamed A. Latency to first interictal epileptiform discharge in epilepsy with outpatient ambulatory EEG. *Clin Neurophysiol*. 2012; 123(9):1732-1735.
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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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