Medical Policy

PARAMOUNT

HMO AND PPO
ELITE (MEDICARE ADVANTAGE)
MARKETPLACE

Ambulatory Electroencephalography Monitoring (EEG)

Policy Number: PG0333
Last Review: 03/05/2021

GUIDELINES:

- This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder terms, conditions, exclusions, and limitations contract. It does not constitute a contract or guarantee regarding coverage or reimbursement/payment. Self-Insured group specific policy will supersede this general policy when group supplementary plan document or individual plan decision directs otherwise.
- Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards.
- This medical policy is solely for guiding medical necessity and explaining correct procedure reporting used to assist in making coverage decisions and administering benefits.

SCOPE:

X Professional
X Facility

DESCRIPTION:

Ambulatory electroencephalography (EEG) is a diagnostic monitoring technique that allows the recording of continuous EEG activity when patients are in the outpatient setting (e.g., at home), without the necessity of admission to the hospital for prolonged video-EEG monitoring. The EEG measures the electrical activity of the brain (brainwaves) using highly sensitive recording equipment. The monitoring equipment consists of an electrode set, preamplifiers, and a cassette recorder. Electrodes attach to the scalp, and their leads are connected to a recorder, usually worn on a belt or shoulder harness. This monitoring is accomplished by a cassette recorder that continuously records brain wave patterns during 24 hours of a patient's routine daily activities and sleep. The recorded activity is then analyzed by playback through an audio amplifier system and video monitor. .

Electroencephalographic video monitoring is the simultaneous recording of the EEG and video monitoring of patient activity.

The ambulatory EEG testing is used to evaluate an individual who have been diagnosed with suspected seizure or nonepilept attacks that have not conclusively been confirmed by the member's medical history, physical examination, and a previous routine or standard (awake and asleep) EEG.

Digital electroencephalography is the paperless acquisition and recording of the electroencephalogram (EEG) via computer-based instrumentation, with waveform storage in a digital format on electronic media, and waveform display on an electronic monitor or other computer output device. Digital EEG spike analysis, which also is known as 3D dipole localization or dipole source imaging, refers to additional analysis of digitally recorded EEG spikes by a technician and a physician.

POLICY:

Paramount Commercial Plans, Medicare Advantage Plans and Paramount Medicaid Advantage

- **Ambulatory EEG monitoring, with or without video, does not require prior authorization for ≤ 84 hours.**
- **Effective 5/1/2021, Ambulatory EEG monitoring, with or without video, requires prior authorization for > 84 hours. See highlighted coding scheme below.**

Long-Term EEG Monitoring Table					
	Professional Services		Technical Services		
Duration of Long-Term EEG/VEEG Recording	**With Report Each 24 Hours**	**With Report at Conclusion of Entire Recording Period**	**Unmonitored**	**Intermittent**	**Continuous**
Less than 120 minutes (w/video or w/out video)	Not reported separately	See 95812/95813	Not reported separately	Not reported separately	Not reported separately
2 to 12 hours (w/out video)	95717 x 1		95705 x 1	95706 x 1	95707 x 1
2 to 12 hours (w/video)	95718 x 1		95711 x 1	95712 x 1	95713 x 1
12 hours and 1 minute to 26 hours (w/out video)	95719 x 1		95708 x 1	95709 x 1	95710 x 1
12 hours and 1 minute to 26 hours (w/video)	95720 x 1		95714 x 1	95715 x 1	95716 x 1
26 hours and 1 minute to 36 hours (w/out video)	95719 x 1 and 95717 x 1		95708 x 1 and 95705 x 1	95709 x 1 and 95706 x 1	95710 x 1 and 95707 x 1
26 hours and 1 minute to 36 hours (w/video)	95720 x 1and 95718 x 1		95714 x 1 and 95711 x 1	95715 x 1 and 95712 x 1	95716 x 1 and 95713 x 1
36 hours and 1 minute to 50 hours (w/out video)	95719 x 2	95721 x 1	95708 x 2	95709 x 2	95710 x 2
36 hours and 1 minute to 50 hours (w/video)	95720 x 2	95722 x 1	95714 x 2	95715 x 2	95716 x 2
50 hours and 1 minute to 60 hours (w/out video)	95719 x 2 and 95717 x 1	95721 x 1	95708 x 2 and 95705 x 1	95709 x 2 and 95706 x1	95710 x 2 and 95707 x 1
50 hours and 1 minute to 60 hours (w/video)	95720 x 2 and 95718 x 1	95722 x 1	95714 x 2 and 95711 x 1	95715 x 2 and 95712 x 1	92716 x 2 and 95713 x 1
60 hours and 1 minute to 74 hours (w/out video)	95719 x 3	95723 x 1	95708 x 3	95709 x 3	95710 x 3

60 hours and 1 minute to 74 hours (w/video)	95720 x 3	95724 x 1	95714 x 3	95715 x 3	95716 x 3	
74 hours and 1 minute to 84 hours (w/out video)	95719 x 3 and 95717 x 1	95723 x 1	95708 x 3 and 95705 x 1	95709 x 3 and 95706 x 1	95710 x 3 and 95707 x 1	
74 hours and 1 minute to 84 hours (w/video)	95720 x 3 and 95718 x 1	95724 x 1	95714 x 3 and 95711 x 1	95715 x 3 and 95712 x 1	95716 x 3 and 95713 x 1	
84 hours and 1 minute to 98 hours (w/out video)	95719 x 4	95725 x 1	95708 x 4	95709 x 4	95710 x 4	
84 hours and 1 minute to 98 hours (w/video)	95720 x 4	95726 x 1	95714 x 4	95715 x 4	95716 x 4	

COVERAGE CRITERIA:

Paramount Commercial Insurance Plans and Elite (Medicare Advantage) Plans

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 should always be preceded by a resting EEG (within the past 12 months).

Diagnostic goals of ambulatory EEG monitoring are usually achieved within a twenty-four-hour period; however, the nature of the patient's symptoms may require ambulatory EEG for a period of forty-eight hours or greater. Circumstances that may require ambulatory EEG monitoring for a period greater than the twenty-four-hour period include, but are not limited to, the following situations:

- For patients with a low seizure frequency in whom no seizure activity was recorded during the initial twenty-four-hour observation period.
- For patients with suspected pseudo-seizures who might otherwise require a hospital admission for Video/EEG observation.

Ambulatory EEG monitoring is considered an established technique and is considered medically necessary following an inconclusive or nondiagnositic standard (awake and asleep) EEG, with the following guidelines:

- For patients in whom a seizure diathesis is suspected but not defined by history, physical or resting EEG;
- To confirm epilepsy in those individuals experiencing suspected nonepileptic events;
- To differentiate between neurological and cardiac related episodes;
- In the differential diagnosis of syncope and transient ischemic attacks if not elucidated by conventional studies , such as focal versus generalized seizures, and frequency;
- To localize seizure focus for enhanced patient management;
- Used for quantification of seizures in patients who experience frequent absence seizures;
- To allow observation of seizures caused by naturally occurring cyclic events or environmental stimuli that are not reproducible in the hospital or clinic setting.

The use of ambulatory EEG and home-video recording are acceptable medically necessary alternative to ambulatory EEG alone.

Video/EEG monitoring at home or in an outpatient facility is considered medically necessary for the following indications when non-neurological causes (e.g., syncope and cardiac arrhythmias) of symptoms have been ruled out:

- The diagnosis cannot be made by neurological examination, standard EEG studies ambulatory cassette EEG monitoring
- Routine surface EEG is not diagnostic of a seizure disorder
- Seizure activity is observed clinically but not captured by routine EEG
- Seizure activity captured on routine EEG does not yield sufficient qualitative or quantitative data to determine a treatment regimen
- Antiepileptic drug (AED) withdrawal is needed
- To differentiate epileptic events from non-epileptic seizures such as psychogenic seizures
- Individual with intractable epilepsy is being evaluated for surgical intervention
- Seizure monitoring of a neonate or child (three years of age or younger) is needed to develop or modify treatment
- To establish the specific type of epilepsy in poorly characterized seizure types where such characterization is medically necessary to select the most appropriate therapeutic regimen.

Video EEG monitoring for any reason other than those listed above are considered not medically necessary.

NonCovered: may not be all-inclusive.

- An Ambulatory EEG is not covered for studies of unattended, non-cooperative Members'.
- An Ambulatory EEG is not covered for neonates.
- In localization of seizure focus/foci when the seizure symptoms and/or other EEG recordings indicate the presence of bilateral foci or rapid generalization.
- For final evaluation of patients who are being considered as candidates for resection surgery.

There is insufficient evidence to support a conclusion concerning the health outcomes or benefits associated with these procedures for these indications.

Digital EEG Spike Analysis:

Digital EEG Spike Analysis, code 95957, should not be used simply when the EEG was recorded digitally. Digital EEG Spike Analysis is used when substantial additional digital analysis was medically necessary and was performed, such as

- Digital EEG spike analysis (CPT 95957) performed in conjunction with an EEG is considered medically necessary for topographic voltage and dipole analysis in presurgical members with intractable (e.g., medically refractory, drug-resistant) epilepsy.
- Digital EEG spike analysis (CPT 95957) performed in conjunction with an EEG is considered not medically necessary for ANY other indication.
- Digital EEG spike analysis performed in conjunction with a routine EEG is considered not medically necessary for ANY indication.

CODING/BILLING INFORMATION:

The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection criteria that must be met. Payment for supplies may be included in payment for other services rendered.

CPT CODES	
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
95706	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, 2-12 hours; with intermittent monitoring and maintenance
95707	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, 2-12 hours; with continuous, real-time monitoring and maintenance
95708	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, each increment of 12-26 hours; unmonitored

95709	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, each increment of 12-26 hours; with intermittent monitoring and maintenance
95710	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, each increment of 12-26 hours; with continuous, real-time monitoring and maintenance
95711	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, 2-12 hours; unmonitored
95712	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, 2-12 hours; with intermittent monitoring and maintenance
95713	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, 2-12 hours; with continuous monitoring and maintenance
95714	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, each increment of 12-26 hours; unmonitored
95715	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, each increment of 12-26 hours; with intermittent monitoring and maintenance
95716	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, each increment of 12-26 hours; with continuous, real-time monitoring and maintenance
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
95718	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; with video (VEEG)
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
95720	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; with video (VEEG)
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
95722	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, with video (VEEG)
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
95724	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, with 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
95726	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, with video (VEEG)
95950	Monitoring for identification and lateralization of cerebral seizure focus, electroencephalographic (eg, 8 channel EEG) recording and interpretation, each 24 hours Deleted
95951	Monitoring for localization of cerebral seizure focus by cable or radio, 16 or more channel telemetry, combined electroencephalographic (EEG) and video recording and interpretation (eg, for presurgical localization), each 24 hours Deleted
95953	Monitoring for localization of cerebral seizure focus by computerized portable 16 or more channel EEG, electroencephalographic (EEG) recording and interpretation, each 24 hours, unattended Deleted
95956	Monitoring for localization of cerebral seizure focus by cable or radio, 16 or more channel telemetry, electroencephalographic (EEG) recording and interpretation, each 24 hours, attended by a technologist or nurse Deleted
95957	Digital analysis of electroencephalogram (EEG) (eg, for epileptic spike analysis)

REVISION HISTORY EXPLANATION: ORIGINAL EFFECTIVE DATE: 07/14/2015

Date	Explanation & Changes
07/14/15	• Policy created to reflect most current clinical evidence per Medical Policy Steering Committee
05/11/16	• Added verbiage to clarify this policy is referring to in-home EEG testing per administrative review/direction
12/21/2020	• Medical policy placed on the new Paramount Medical Policy Format
03/01/2021	• Policy updated to the latest CPT codes • Policy updated to reflect the most current clinical evidence • Removed deleted codes 95950, 95951, 95953, 95956 – Deleted 12/31/2019 • Added CPT codes 95700, 95705, 95706, 95707, 95708, 95709, 95710, 95711, 95712, 95713, 95714, 95715, 95716, 95717, 95718, 95719, 95720, 95721, 95722, 95723, 95724, 95725, 95726, 95957 codes (Effective 01/01/2020) • Effective 5/1/2021 Ambulatory EEG monitoring, with or without video, requires prior authorization for > 84 hours
02/22/2023	• Medical Policy updated to reflect Medicaid coverage to Anthem as of 02/01/2023
03/08/2024	• Medical policy placed on the new Paramount Medical Policy Format

Paramount reserves the right to review and revise our policies periodically when necessary. When there is an update, we will publish the most current policy to https://www.paramounthealthcare.com/providers/medical-policies/policy-library

REFERENCES/RESOURCES

Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs

American Medical Association, *Current Procedural Terminology (CPT®)* and associated publications and services https://www.ama-assn.org/amaone/cpt-current-procedural-terminology

Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS-Quarterly-Update

U.S. Preventive Services Task Force, https://www.uspreventiveservicestaskforce.org/uspstf/
Industry Standard Review

Hayes, Inc., https://www.hayesinc.com/

Industry Standard Review