Medical Coverage Policy

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Electroencephalography

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INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment where appropriate and have discretion in making individual coverage determinations. Where coverage for care or services does not depend on specific circumstances, reimbursement will only be provided if a requested service(s) is submitted in accordance with the relevant criteria outlined in the applicable Coverage Policy, including covered diagnosis and/or procedure code(s). Reimbursement is not allowed for services when billed for conditions or diagnoses that are not covered under this Coverage Policy (see "Coding Information" below). When billing, providers must use the most appropriate codes as of the effective date of the submission. Claims submitted

for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses ambulatory electroencephalography (EEG) for the diagnosis and management of seizure activity, and digital EEG spike analysis.

Coverage Policy

Ambulatory Electroencephalography

Ambulatory electroencephalography (EEG) following completion of a routine EEG is considered medically necessary for the diagnosis and management of seizure activity when ANY of the following criteria is met:

- inconclusive routine EEG
- suspected epilepsy when the history, clinical examination, and routine EEG is inconclusive
- suspected seizures of sleep disturbances
- individual with confirmed epilepsy who is experiencing suspected non-epileptic events
- classification of seizure type for the selection or adjustment of anti-epileptic medication
- exclusion of non-neurological causes of seizure-like activity
- seizures which are precipitated by naturally occurring cyclic events or environmental stimuli which are not reproducible in the hospital or clinic setting

Ambulatory EEG is not covered or reimbursable for the diagnosis and management of ANY other indication.

Digital EEG Spike Analysis

Digital EEG spike analysis (CPT® code 95957) performed in conjunction with an EEG is considered medically necessary for topographic voltage and dipole analysis in presurgical candidates with intractable (e.g., medically refractory, drug-resistant) epilepsy.

Digital EEG spike analysis (CPT® code 95957) performed in conjunction with an EEG is not covered or reimbursable for ANY other indication.

Digital EEG spike analysis performed in conjunction with a routine EEG is not covered or reimbursable for ANY indication.

Health Equity Considerations

Health equity is the highest level of health for all people; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which people are born, grow, live, work, and age.

Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include safe housing, transportation, and neighborhoods; racism, discrimination and violence; education, job opportunities and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

Approximately one in 26 people will develop epilepsy. Seizures and epilepsy are more common in young children and older adults, and men are affected more often than women. Epilepsy is more prevalent in individuals of Hispanic background vs. non-Hispanics. The number of people who develop epilepsy over a lifetime (i.e., lifetime prevalence) is higher in Black individuals than in white individuals, while poorly controlled or uncontrolled epilepsy is more common in white individuals. These differences may be related to social and economic factors (e.g., socioeconomic status; location and quality of health care) (Epilepsy Foundation, 2014).

General Background

A seizure is a burst of uncontrolled electrical activity in the brain that causes temporary abnormalities in movements, muscle tone, behaviors, sensations, and/or states of awareness. Epilepsy is a chronic seizure disorder, characterized by recurring, unprovoked seizures. Epilepsy is diagnosed when an individual has one of the following: at least two unprovoked (or reflex) seizures which occur more than 24 hours apart; one unprovoked (or reflex) seizure with a probability of further seizures occurring over the next ten years; or a diagnosis of an epilepsy syndrome (Schachter, 2021).

Epileptic seizures can last for several minutes and, depending on the region of the brain affected, can bring about fainting, involuntary and violent shaking, or brief episodes of unconsciousness. Epilepsy may result from: structural abnormalities in the brain; genetic variants (e.g., SCN1A gene mutations in Dravet syndrome); infection (e.g., cerebral malaria); metabolic disorders; or immune disorders. In some cases the underlying cause may be unknown (Scheffer, et al., 2017). Seizure type and precipitating causes are evaluated to determine the best course of treatment. A seizure does not necessarily mean that a person has epilepsy. There are numerous conditions that can be associated with convulsive events that can resemble seizures/epilepsy, and these should be carefully excluded (Epilepsy Foundation, 2022).

The diagnosis of epilepsy can be complicated, and it is not unusual to have a misdiagnosis. Diagnosing epileptic seizures is made by analyzing the individual's clinical history, laboratory results, and an electroencephalogram (EEG). An EEG is an important diagnostic test in assessing an individual with potential epilepsy. It can support the diagnosis of epilepsy and also assist in classifying the underlying epileptic syndrome. An EEG measures the electrical activity of the brain (i.e., brainwaves) using recording equipment attached to the scalp by electrodes. The EEG is used in the evaluation of brain disorders, and most commonly used to show the type and location of the activity in the brain during a seizure. It may also be used to evaluate problems associated with brain function such as confusion and long-term difficulties with thinking or memory.

An EEG is obtained to document the presence and frequency of the abnormal neuron activity. In most cases a routine EEG can identify brain activity specific to seizures. The EEG can provide support for the diagnosis of epilepsy and also assist in classifying the underlying epileptic syndrome. However, there are several reasons a routine EEG alone cannot be used to make or refute a specific diagnosis of epilepsy in some cases (Moeller, et al., 2020):

- Most EEG patterns can be caused by a wide variety of neurologic diseases.
- Many diseases can cause more than one type of EEG pattern.

- Intermittent EEG changes, including interictal epileptiform discharges, can be infrequent and may not appear during the relatively brief period of routine EEG recording.
- The EEG can be abnormal in some persons with no other evidence of disease.
- Not all cases of brain disease are associated with an EEG abnormality, particularly if the pathology is small, chronic, or located deep in the brain.

For some individuals diagnosed with epilepsy, the EEG may remain normal. Spike discharges may not be captured on an EEG because their occurrence is rare, or their site of origin is very small or within an occult area of the cortex. Spike activity can also be affected by antiepileptic medication. A normal patient may show unusual brain activity on an EEG and be incorrectly diagnosed. When a definitive diagnosis cannot be made from a clinical examination and a resting EEG, additional testing may be necessary (e.g., ambulatory EEG, video EEG). A prolonged ambulatory EEG in the outpatient/home setting may be used to differentiate between the presence of epileptic, non-epileptic or psychogenic seizure disorders (Abou-Khalil, et al., 2022).

Ambulatory Electroencephalography (EEG)
Ambulatory EEG monitoring is performed by a recorder for up to 96 hours and continuously records brain wave patterns during an individual's routine daily activities and sleep. An ambulatory EEG can be done with or without video recording. The monitoring equipment includes an electrode set, preamplifiers, and a recorder. The electrodes attach to the scalp, and the leads are connected to a recorder, usually worn on a belt. Ambulatory EEG allows individuals to be evaluated in their natural environments, with exposure to potential stressors and other seizure triggers.

Prolonged continuous ambulatory EEG recording throughout one or more complete natural sleep/wake cycles increases the likelihood of documenting an ictal (seizure) episode. The most helpful finding on EEG is interictal epileptiform discharges (IEDs), which are spikes, polyspikes, sharp waves, or spike and slow-wave complexes without observed clinical seizures. An IED pattern is believed to be associated with a relatively high risk for having seizures. For 95% of epilepsy patients, IEDs are identified within 48 hours of recording (Tatum, et al., 2018; Seneviratne, et al., 2013; Faulkner, et al., 2012). Routine EEG has low sensitivity in epilepsy ranging from 25%–55%, with a variable specificity, especially in children (Moeller, et al., 2020). Serial routine EEGs, studies performed a short time after an epileptic seizure, as well as sleep-deprived EEG studies increase the overall diagnostic yield. However, those methods are usually considered inferior to long-term EEG monitoring, where the duration of recording is measured in hours or days (Keezer, et al., 2016).

Ambulatory EEG recordings can be utilized in the evaluation and differential diagnosis of non-epileptic seizures if these episodes are unable to be diagnosed by conventional studies. There are two categories of non-epileptic seizures: pathophysiological events and non-epileptic psychopathological/psychiatric events. Pathophysiological events include autonomic disorders, cardiac arrhythmias, drug toxicity, metabolic disorders, migraines, orthostatic hypotension, sleep disorders, valvular heart disease, vasovagal syncope, and vestibular disorders. Non-epileptic psychopathological/psychiatric events include anxiety, depression, panic attacks, psychogenic seizures, and psychosis (Mesraoua, et al., 2012).

Syncope, for example, shares some clinical characteristics with seizures and may lead to diagnostic confusion. Seizures and syncope may also coexist in a given individual. In general, a syncopal episode or temporary loss of consciousness may be considered unrelated to epilepsy if any of the following features are present:

- prodromal symptoms that on other occasions have been abolished by sitting or lying down
- sweating before the episode
- prolonged standing that appeared to precipitate the temporary loss of consciousness

- pallor during the episode

Sleep and sleep stage have a significant impact on the incidence and frequency of both seizures and epileptiform discharges that occur in between seizures. Generally, non-rapid eye movement (NREM) sleep facilitates IEDs and seizures, while rapid eye movement (REM) sleep tends to inhibit seizures. Prolonged outpatient ambulatory, inpatient video-EEG recordings, or overnight video-EEG polysomnography are of higher yield in detecting IEDs and capturing seizures in the sleep-related focal epilepsies (St. Louis and Foldvary-Schaefer, 2020).

U.S. Food and Drug Administration (FDA): The FDA has approved several wearable EEG devices for use in the ambulatory setting as Class II 510(k) medical devices, including the TrackIt T4 (Lifelines LTD, Over Wallop, GB) and the Apollo (Cadwell Industries, Inc., Kennewick, WA). Devices may vary in number of channels recorded and recording time, and some newer iterations include wireless data transmission and/or video recording integration.

Literature Review: The published peer-reviewed medical literature contains some evidence primarily in the form of case series to support the use of ambulatory EEG. While the supporting evidence is not robust, the use of ambulatory EEG monitoring has become a standard of care within the set of diagnostic evaluations of epilepsy versus a non-epileptic syndrome for a subset of individuals. Prospective and retrospective studies have reported the value of adding ambulatory EEG to standard EEG recording data in confirming the presence or absence of epileptic conditions.

Cho et al. (2019) performed a retrospective review to evaluate the diagnostic yield and clinical utility of video electroencephalography (vEEG) performed in a comprehensive epilepsy center. A total of 1025 vEEG cases performed from May 2003 to April 2018 were included in the analysis. The mean duration of vEEG was 2.3 ±1.6 days. A total of 763 vEEGs documented epileptic seizures or interictal epileptiform discharges (IEDs) to confirm the diagnosis of epilepsy. There were 99 psychogenic non-epileptic seizures; 36 incidences of status epilepticus; and 34 vEEGs which revealed generalized or focal slow activities without any clinical seizures or IEDs. Video EEG was normal in 170 cases. The diagnostic yield or detection rate of vEEG varied from 83.4 to 88.4% depending on its definition. The proportion of epilepsy in total cases of vEEG continued to decrease from 77.2 to 61.4%. In contrast, the proportion of normal vEEG steadily increased from 4.1 to 24.1% during the same time period. The authors concluded that this study demonstrates the utility of vEEG in clinical circumstances beyond epilepsy. They further state that video EEG can play a pivotal role in the diagnostic approach to epilepsy and its differential diagnoses.

Carlson et al. (2018) published the results of a prospective study that evaluated the diagnostic efficacy and technical quality of home video telemetry (HVT) in comparison with inpatient video telemetry (IVT) in a pediatric group. Included patients (n=62) were age 18 years and younger with video telemetry of 24–72 hours. Thirty–three patients were in the HVT group with 29 in the IVT group. The aim of the study was to determine if the performance of HVT was comparable to that of IVT in a pediatric group in terms of diagnostic efficacy, recording quality and acceptability to parents or caregivers. The diagnostic accuracy between the two groups was comparable with 64% of HVT patients and 62% of IVT patients having typical attacks during the recording. Equipment difficulties occurred in 52% of HVT studies which included camera positioning and failure to turn on the infrared button at night and resulted in a loss of diagnostic information in 15% of patients. Author reported limitations of the study included the lack of randomization and the subjective nature of recording quality assessment by a variety of clinical physiologists. The authors concluded that in a pediatric setting HVT is able to provide similar technical and diagnostic quality results when compared to IVT.

In a prospective study (n=72) by Keezer et al. (2016), the sensitivity of ambulatory EEG was reported to be 2.23 times greater than that of routine EEG ($p<0.0001$). Ambulatory EEG results

have been reported to change clinical management in up to 51% of patients, with a median recording duration of 1.4 days (Faulkner, et al., 2012). Prolonged ambulatory EEG has been found to have a higher probability of recording an epileptic event relative to sleep-deprived EEG (15.2% versus 0%, respectively; p=0.01) (Liporace, et al., 1998).

Digital EEG Spike Analysis
Individuals who have epilepsy and do not successfully respond to antiseizure drug therapy are considered to have drug-resistant epilepsy (DRE). This condition is also known as intractable, medically refractory, or pharmacoresistant epilepsy. Refractory epilepsy is defined by failure of two antiepileptic drugs, and the individual may be referred to an epilepsy center for diagnosis and consideration of the many therapeutic options currently available. In addition to a careful history and physical examination directed at determining seizure type, site of origin, and etiology, the most important diagnostic test for evaluating intractable seizures is prolonged simultaneous video and EEG monitoring. Video EEG may need to continue for days or weeks to obtain enough spells to make a correct diagnosis. Surgery for resection of the epilepsy focus is currently the only available method of curing epilepsy (Abou-Khalil, et al., 2022; Padin-Rosado, 2021).

Prolonged monitoring for epilepsy surgery is often divided into two phases. Testing in the first phase is noninvasive and sets out to determine the type of epilepsy and whether or not the epilepsy is pharmacotherapy-resistant. Phase two consists of semi-invasive and invasive techniques to locate the areas of the brain from which the seizures originate (Mesraoua, et al., 2012). As such, ambulatory and video EEG may be appropriate during phase one, while more advanced EEG testing is needed in phase two.

Currently, EEGs are primarily performed on digital machines instead of older analog machines. Automated spike and seizure detectors are usually built into digital routine EEG, ambulatory EEG, or video-EEG monitoring. Because of this enhancement, substantial additional analysis by the physician and/or technician is typically not necessary. The most intense use of EEG source localization is in epilepsy, with the intention to localize the epileptic zone in pharmacoresistant focal epilepsies. The added value of this method in the pre-surgical assessment of these patients has been demonstrated repeatedly, not only for focus localization, but also for localization of those areas necessary for language, motor, and sensory functions (i.e., "eloquent cortex"), which cannot be resected without causing unacceptable neurologic deficits (Abou-Khalil, et al., 2022; Michel and Brunet, 2019). Most practitioners would not have the opportunity to do this advanced analysis, which would be more commonly used at specialty centers (e.g., epilepsy surgery programs) (American Clinical Neurophysiology Society [ACNS], 2008).

Professional Societies/Organizations
American Clinical Neurophysiology Society (ACNS): According to the ACNS, indications for long term EEG monitoring (e.g., ambulatory EEG) include the following:

1. Identification of epileptic paroxysmal electrographic and/or behavioral abnormalities. These include epileptic seizures (overt and subclinical), and documentation of interictal epileptiform discharges.
2. Verification of the epileptic nature of the new "spells" in a patient with previously documented and controlled seizures.
3. Classification of clinical seizure type(s) in a patient with documented but poorly characterized epilepsy.

The ACNS has further stated that EEG and/or behavioral abnormalities may assist in the differential diagnosis between epileptic disorders and conditions associated with intermittent symptoms due to non-epileptic mechanisms (e.g., syncope, narcolepsy, other sleep disturbances, psychogenic seizures) (ACNS, 2008).

The American Academy of Neurology (AAN): In 2022 the AAN reaffirmed a 2013 recommendation that EEG should not be performed for headaches as it offers no advantage over clinical evaluation in diagnosing headache, nor does it improve outcomes.

Medicare Coverage Determinations

	Contractor	Determination Name/Number	Revision Effective Date
LCD	National Government Services, Inc.	EEG – Ambulatory Monitoring (L33399)	1/01/2020
LCD	First Coast Service Options	Special EEG Tests (L34521)	1/08/2019
LCD	Palmetto GBA	Special Electroencephalography (L33447)	9/19/2024

Note: Please review the current Medicare Policy for the most up-to-date information.
(NCD = National Coverage Determination; LCD = Local Coverage Determination)

Coding Information

Notes:

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare & Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Ambulatory Electroencephalography (EEG)

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

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
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

CPT®* Codes	Description
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, real-time 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 (VEEG)

CPT®* Codes	Description
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)

ICD-10-CM Diagnosis Codes	Description
F51.8	Other sleep disorders not due to a substance or known physiological condition
G40.001	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus
G40.009	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, without status epilepticus
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.201	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus
G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus
G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
G40.311	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, without status epilepticus
G40.A01	Absence epileptic syndrome, not intractable, with status epilepticus
G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
G40.A11	Absence epileptic syndrome, intractable, with status epilepticus
G40.A19	Absence epileptic syndrome, intractable, without status epilepticus

ICD-10-CM Diagnosis Codes	Description
G40.B01	Juvenile myoclonic epilepsy, not intractable, with status epilepticus
G40.B09	Juvenile myoclonic epilepsy, not intractable, without status epilepticus
G40.B11	Juvenile myoclonic epilepsy, intractable, with status epilepticus
G40.B19	Juvenile myoclonic epilepsy, intractable, without status epilepticus
G40.C01	Lafora progressive myoclonus epilepsy, not intractable, with status epilepticus
G40.C09	Lafora progressive myoclonus epilepsy, not intractable, without status epilepticus
G40.C11	Lafora progressive myoclonus epilepsy, intractable, with status epilepticus
G40.C19	Lafora progressive myoclonus epilepsy, intractable, without status epilepticus
G40.401	Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus
G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
G40.411	Other generalized epilepsy and epileptic syndromes, intractable, with status epilepticus
G40.419	Other generalized epilepsy and epileptic syndromes, intractable, without status epilepticus
G40.501	Epileptic seizures related to external causes, not intractable, with status epilepticus
G40.509	Epileptic seizures related to external causes, not intractable, without status epilepticus
G40.801	Other epilepsy, not intractable, with status epilepticus
G40.802	Other epilepsy, not intractable, without status epilepticus
G40.803	Other epilepsy, intractable, with status epilepticus
G40.804	Other epilepsy, intractable, without status epilepticus
G40.811	Lennox-Gastaut syndrome, not intractable, with status epilepticus
G40.812	Lennox-Gastaut syndrome, not intractable, without status epilepticus
G40.813	Lennox-Gastaut syndrome, intractable, with status epilepticus
G40.814	Lennox-Gastaut syndrome, intractable, without status epilepticus
G40.821	Epileptic spasms, not intractable, with status epilepticus
G40.822	Epileptic spasms, not intractable, without status epilepticus
G40.823	Epileptic spasms, intractable, with status epilepticus
G40.824	Epileptic spasms, intractable, without status epilepticus
G40.833	Dravet syndrome, intractable, with status epilepticus
G40.834	Dravet syndrome, intractable, without status epilepticus
G40.841	KCNQ2-related epilepsy, not intractable, with status epilepticus
G40.842	KCNQ2-related epilepsy, not intractable, without status epilepticus
G40.843	KCNQ2-related epilepsy, intractable, with status epilepticus
G40.844	KCNQ2-related epilepsy, intractable, without status epilepticus
G40.89	Other seizures
G40.901	Epilepsy, unspecified, not intractable, with status epilepticus
G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
G40.911	Epilepsy, unspecified, intractable, with status epilepticus
G40.919	Epilepsy, unspecified, intractable, without status epilepticus
G47.00	Insomnia, unspecified
G47.10	Hypersomnia, unspecified
G47.14	Hypersomnia due to medical condition
G47.20	Circadian rhythm sleep disorder, unspecified type
G47.30	Sleep apnea, unspecified

ICD-10-CM Diagnosis Codes	Description
G47.8	Other sleep disorders
G47.9	Sleep disorder, unspecified
G93.5	Compression of brain
G93.6	Cerebral edema
G93.82	Brain death
I60.00-I60.9	Nontraumatic subarachnoid hemorrhage
I61.9	Nontraumatic intracerebral hemorrhage, unspecified
I63.00-I63.9	Cerebral infarction
P91.60	Hypoxic ischemic encephalopathy [HIE], unspecified
P91.61	Mild hypoxic ischemic encephalopathy [HIE]
P91.62	Moderate hypoxic ischemic encephalopathy [HIE]
P91.63	Severe hypoxic ischemic encephalopathy [HIE]
R25.1	Tremor, unspecified
R25.2	Cramp and spasm
R25.3	Fasciculation
R25.8	Other abnormal involuntary movements
R25.9	Unspecified abnormal involuntary movements
R40.4	Transient alteration of awareness
R41.0	Disorientation, unspecified
R41.82	Altered mental status, unspecified
R55	Syncope and collapse
R56.01	Complex febrile convulsions
R56.1	Post traumatic seizures
R56.9	Unspecified convulsions
R94.01	Abnormal electroencephalogram [EEG]
S06.2X0A-S06.2X9S	Diffuse traumatic brain injury

Not Covered or Reimbursable:

ICD-10-CM Diagnosis Codes	Description
	All other codes

Digital EEG Spike Analysis

Considered Medically Necessary when performed in conjunction with an EEG for topographic voltage and dipole analysis in presurgical candidates with intractable (e.g., medically refractory, drug-resistant) epilepsy:

CPT®* Codes	Description
95957	Digital analysis of electroencephalogram (EEG) (eg, for epileptic spike analysis)

Considered Medically Necessary when used to report digital EEG spike analysis (CPT® code 95957) performed in conjunction with the following procedures:

CPT®* Codes	Description
95830	Insertion by physician or other qualified health care professional of sphenoidal electrodes for electroencephalographic (EEG) recording
95954	Pharmacological or physical activation requiring physician or other qualified health care professional attendance during EEG recording of activation phase (eg, thiopental activation test)
95955	Electroencephalogram (EEG) during nonintracranial surgery (eg, carotid surgery)
95958	Wada activation test for hemispheric function, including electroencephalographic (EEG) monitoring

Not Covered or Reimbursable when digital EEG spike analysis (CPT® code 95957) is billed with any of the following routine EEG CPT® codes:

CPT®* Codes	Description
95782	Polysomnography; younger than 6 years, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95806	Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (eg, thoracoabdominal movement)
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist
95808	Polysomnography; any age, sleep staging with 1-3 additional parameters of sleep, attended by a technologist
95810	Polysomnography; age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95812	Electroencephalogram (EEG) extended monitoring; 41-60 minutes
95813	Electroencephalogram (EEG) extended monitoring; 61-119 minutes
95816	Electroencephalogram (EEG); including recording awake and drowsy
95819	Electroencephalogram (EEG); including recording awake and asleep
95822	Electroencephalogram (EEG); recording in coma or sleep only
95824	Electroencephalogram (EEG); cerebral death evaluation only

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Revision Details

Type of Revision	Summary of Changes	Date
Annual Revision	• No policy statement changes.	1/15/2025
Annual Revision	• No policy statement changes.	1/15/2024
Revision	• Revised policy statements for ambulatory and digital spike EEG 10/15/2023	10/15/2023