Ambulatory and Video Electroencephalography (EEG) for Epilepsy

Policy Number: HS-005

Original Effective Date: 12/6/2007


APPLICATION STATEMENT

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.
DISCLAIMER

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member’s particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member’s benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member’s Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any. Note: The lines of business (LOB) are subject to change without notice; consult www.wellcare.com/Providers/CCGs for list of current LOBs.

BACKGROUND

Video electroencephalography (V-EEG) involves video recording a patient while simultaneously recording their EEG, usually over a period of some days. This allows correlation of a video-recorded seizure with any abnormal electrical discharge in the brain, demonstrating an epileptic or non-epileptic basis for the seizure. V-EEG is most often used to clarify an epileptic diagnosis, to differentiate between epilepsy and non-epileptic seizures, or for detailed pre-surgical evaluation for intractable epilepsy. The technique may be especially useful in children who cannot always adequately describe the subjective symptoms used by the clinician to differentiate seizure types. A member will have scalp electrodes connected to a lightweight box that can be worn while moving around and ultimately this box transmits the EEG recordings to a computer network via either wireless or cable systems. The computer systems can have inbuilt seizure detection software, and staff or family members can also press an event button to indicate a seizure, to facilitate comparison of the video with EEG trace. Various means are often employed to increase the chances of observing a seizure during the V-EEG recording, including withdrawing anticonvulsant medication, sleep deprivation, or saline injections in cases of suspected psychologic seizures. Inpatient procedures allow for more data collection and direct medical supervision.

Ambulatory electroencephalography EEG (A-EEG) cassette monitoring was developed as an extension of the routine EEG examination. The member maintains a normal routine, while wearing a monitoring system. A portable cassette recorder is used to continuously record brain wave patterns. This method allows the clinician to observe the member's EEG activity in multiple states, such as sleeping, waking and normal daily activities. The member or caregiver uses a button to mark the recording in order to indicate when an event occurred. The information provided may allow the clinician to identify the seizure type. This method may also provide reliable data for evaluating patients with suspected non-epileptic events, such as syncope, transient ischemic attacks, pseudoseizures and poorly defined seizure disorders. The goal length of stay for V-EEG would be 24 hour observation. However, the event being monitored may not occur in this time frame. Admission may be necessary for further monitoring or for preoperative localization of seizure foci. The length of stay is assigned per day, based on clinical review, up to four days. Inpatient stay beyond four days requires medical review. A-EEG is done on an outpatient basis.

POSITION STATEMENT

Applicable To:
- ☑ Medicaid
- ☑ Medicare

Video Electroencephalography (V-EEG) is considered medically necessary for inpatient setting in the following circumstances:

1. Member presents with a suspected seizure as evidenced by all of the following:
   - Recurrent symptoms not classic for seizures; AND,
   - History and lab results are non-diagnostic for etiology of seizure; AND,
   - Routine EEG findings are non-specific; AND,
   - MRI results are normal or non-diagnostic for etiology of seizure; AND,
   - No sudden cessation of heavy alcohol use within 48 hours of seizure; AND,
   - No intoxication due to drugs of abuse within 48 hours of seizure.
2. Authorization for inpatient admission may be issued for inpatient setting when the member has a known seizure as evidenced by all of the following:
   - Refractory to Rx as evidenced by:
     - Rx with $> 2$ anticonvulsant medications; AND,
     - Anticonvulsant levels are therapeutic; AND,
     - No concurrent seizure-provoking medications; AND,
   - Routine EEG findings are non-specific; AND,
   - MRI results are normal or non-diagnostic for etiology of seizure.

Members may be authorized for inpatient admission to localize the seizure focus in members with documented medically refractory seizures prior to possible resective epilepsy surgery or intracranial electrode implantation and surgery.

In addition, the following criteria must be met to authorize an initial 23 - 48 hour observation:

- For members with a diagnosis of known seizure history with increasing symptoms; OR,
- For members who are admitted to see if they are seizure-free prior to withdrawal from anti-epileptic medication; OR,
- For members with undiagnosed spell; OR,
- For members with a clinical history of seizures in whom standard EEG testing, MRI, and neurological examination have been non-diagnostic; OR,
- For members with an epilepsy diagnosis, to evaluate additional events that are different from their typical seizures to determine the nature of the event and what changes are needed to the treatment plan; OR,
- To establish specific type of epilepsy and localization of seizures in poorly characterized seizure types where such characterization is needed to determine the most appropriate therapeutic regimen; OR,
- To distinguish between epileptic seizures and non-epileptic episodes (psychogenic seizures, syncope, hyperventilation episodes)

Video Electroencephalography (V-EEG) is considered NOT medically necessary as an inpatient procedure in the following circumstances:

- When circumstances above are not present.

Ambulatory Electroencephalography (A-EEG) is considered medically necessary in the following circumstances:

- To differentiate between seizures and paroxysmal non-epileptic seizures; OR,
- For members with a clinical history suggestive of seizures and standard EEG testing is non-diagnostic; OR,
- For evaluation of seizures or syncope suspected to be cardiogenic in nature when cardiac evaluation has not been diagnostic; OR,
- When used for quantification of seizures in members who experience frequent seizures, such as petit mal or myoclonic seizures, among others; OR,
- When used in documenting seizures precipitated by naturally occurring, cyclic events or extraneous stimuli which are not reproducible in the hospital or laboratory setting i.e., loud sounds, flashing lights, sudden movements).

Ambulatory Electroencephalography (A-EEG) is considered NOT medically necessary in the following circumstances:
• Study of neonates, or unattended, non-cooperative members; OR,
• Localization of seizure focus/foci when the seizure symptomatology and/or other EEG recordings indicate the presence of bilateral foci or rapid generalization; OR,
• Final evaluation of members being considered as candidates for resective surgery

CODING

CPT® Codes that are considered medically necessary when the above criteria have been met.

95950 Monitoring for identification and lateralization of cerebral seizure focus, electroencephalographic (eg 8 channel EEG) recording and interpretation, each 24 hours
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 pre-surgical localization), each 24 hours
95953 Monitoring for localization of cerebral seizure focus by computerized portable 16 or more channel EEG, electroencephalographic (EEG) recording and interpretation, each 24 hours
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

ICD-9-CM Procedure Code is considered medically necessary when the above criteria have been met.
89.19 Video and Radio-telemetered electroencephalographic monitoring; EEG Monitoring

DRAFT 2014 ICD-10-PCS Codes
4A1034Z Monitoring of Central Nervous Electrical Activity, Percutaneous Approach
4A10X4Z Monitoring of Central Nervous Electrical Activity, External Approach
4A1134Z Monitoring of Peripheral Nervous Electrical Activity, Percutaneous Approach
4A11X4Z Monitoring of Peripheral Nervous Electrical Activity, External Approach

HCPCS Codes - No applicable codes

ICD-9-CM Diagnosis Codes that meet medically necessity when the above criteria have been met.
345.00 Generalized Nonconvulsive Epilepsy without Intractable Epilepsy
345.01 Generalized Nonconvulsive Epilepsy with Intractable Epilepsy
345.10 Generalized Convulsive Epilepsy without Intractable Epilepsy
345.11 Generalized Convulsive Epilepsy with Intractable Epilepsy
345.2 Petit Mal Status Epileptic
345.3 Grand Mal Status Epileptic
345.40 Localization- Related (Focal) (Partial) Epilepsy and Epileptic Syndromes with Complex Partial Seizures, without mention of Intractable Epilepsy
345.41 Localization-Related (Focal) (Partial) Epilepsy and Epileptic Syndromes with Complex Partial Seizures, with Intractable Epilepsy
345.50 Localization-Related (Focal) (Partial) Epilepsy and Epileptic Syndromes with Simple Partial Seizures, without mention of Intractable Epilepsy
345.51 Localization-Related (Focal) (Partial) Epilepsy and Epileptic Syndromes with Simple Partial Seizures, with Intractable Epilepsy
345.60 Infantile Spasms without Intractable Epilepsy
345.61 Infantile Spasms with Intractable Epilepsy
345.70 Epilepsia Partialis Continua without Intractable Epilepsy
345.71 Epilepsia Partialis Continua with Intractable Epilepsy
345.80 Other Forms of Epilepsy and Recurrent Seizures, without mention of Intractable Epilepsy
345.81 Other Forms of Epilepsy and Recurrent Seizures, with Intractable Epilepsy
345.90 Epilepsy Unspecified without Intractable Epilepsy
345.91 Epilepsy Unspecified with Intractable Epilepsy
780.39 Other Convulsions
ICD-10-CM Diagnosis Codes
G40.001 - G40.919 Epilepsy and recurrent seizures
R56.9 Unspecified convulsions


REFERENCES

MEDICAL POLICY COMMITTEE HISTORY AND REVISIONS

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<td>12/4/2014</td>
<td>• Approved by MPC. No changes.</td>
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<tr>
<td>12/5/2013</td>
<td>• Approved by MPC. Expanded criteria.</td>
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<td>12/6/2012</td>
<td>• Approved by MPC. No changes.</td>
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<tr>
<td>5/3/2012</td>
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<td>12/1/2011</td>
<td>• New template design approved by MPC.</td>
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<td>7/18/2011</td>
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