Clinical Policy: Video Electroencephalographic (VEEG) Monitoring

Reference Number: CP.MP.177 Coding Implications
Last Review Date: 09/20 Revision Log

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

Description

Video electroencephalographic (VEEG) monitoring is the synchronous recording and display of EEG patterns and video-recorded clinical behavior. Short recordings of several hours can be performed in an ambulatory and monitored setting in an EEG laboratory, while longer recordings of 24 hours or more are generally done in a hospital inpatient setting under observation or admitted status.[1]

Policy/Criteria

I. It is the policy of health plans affiliated with Centene Corporation® that *video encephalographic (VEEG) monitoring* performed in a monitored hospital or ambulatory setting is **medically necessary** for any of the following:

A. Known seizure disorder, any of the following:
   1. Continued seizures despite antiepileptic medication and no concurrent seizure-provoking medications;
   2. Modification of anticonvulsant medication when outpatient observation is deemed unsafe;
   3. Suspected nocturnal seizures or nocturnal repetitive motor activity;
   4. Necessary determination of the nature and frequency of seizures when the patient has limited awareness of events or the behavioral manifestations are minimal;

B. Suspected epileptic seizures, when single event EEG or ambulatory EEG monitoring is inconclusive;

C. Suspected non-epileptic seizure (pseudoseizures, psychogenic nonepileptic seizures, or other recurring seizure-like behavior), all of the following:
   1. Recurrent symptoms are not obviously due to seizures;
   2. History or laboratory results are nondiagnostic for etiology of seizure;
   3. Routine EEG is nonspecific;

D. Preoperative evaluation of patient undergoing epilepsy surgery or implantation of intracranial electrodes.

II. It is the policy of health plans affiliated with Centene Corporation that outpatient video encephalography (EEG) monitoring in the home is **not medically necessary.**

Background

VEEG is considered for differentiating epileptic seizures from nonepileptic seizures (physiologic or psychogenic). A psychogenic non-epileptic seizure is an event with short, non-stereotyped, frequent changes in behavior, movements, sensations or consciousness that resemble a seizure but are not associated with epileptiform activity. VEEG is considered the gold standard for confirming the diagnosis of psychogenic non-epileptic seizure. It is also used to classify seizure type when the diagnosis is unclear or when seizures are refractory. In drug-resistant focal epilepsy it can localize, by means of surface and/or intracranial electrodes, a region of

epileptogenic brain tissue that is the site of origin of recurrent seizures and that is amenable to surgical removal. VEEG is useful in children in whom clinical differentiation of seizures may be more difficult due to the inability to describe subjective symptoms.

The duration of recording depends on the indication for monitoring and the frequency of seizure occurrence. Classifying a rare event or recording multiple events, as required for a presurgical evaluation, usually requires longer recordings as compared to classifying a frequently occurring event, (i.e., seizure or nonepileptic seizure.) The likelihood of recording an event (and therefore making a diagnosis) increases with the duration of recording. Diagnostic efficacy requires the ability to record continuously until sufficient data are obtained.[2] Non-epileptic events, poorly characterized, or localized seizures will require provocation of seizures. A number of techniques can be used to provoke typical events including, but not limited to, sleep deprivation, hyperventilation, photic stimulation, and reducing or withdrawing anti-epileptic medication. Inpatient VEEG monitoring is necessary to maintain safety when reducing or withdrawing anti-epileptic medication.

During VEEG monitoring, the patient wears an EEG transmitter connected to a wall outlet by coaxial cable. Wall-mounted video cameras provide continuous behavioral observation. Both EEG and video signals are transmitted to a control room, where the EEG is reformatted and conducted to a video monitor. The EEG signal and video are displayed simultaneously for on-line observation, and both are recorded on videotape. The EEG may be recorded on paper or stored on optical disc.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

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
95713	Electroencephalogram with video (VEEG), review of data, technical description by EEG technologist, 2-12 hours; with continuous, real-time 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
95718	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike

CPT® Codes	Description
	and seizure detection, interpretation and report, 2-12 hours of EEG recording; with video (VEEG)
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)
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)
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)
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)

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria
+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
F44.5	Conversion disorder with seizures or convulsions
G40.001-G40.919	Epilepsy and recurrent seizures
P90	Convulsions of newborn
R25.0-R25.8	Abnormal involuntary movements
R56.1	Post traumatic seizures
R56.9	Unspecified convulsions

Reviews, Revisions, and Approvals	Date	Approval Date
Original approval date. Internal and external specialist review.	09/19	10/19
Removed CPT code 95951 – code deleted 1/1/2020. Added the following CPT codes: 95700, 95713, 95716, 95718, 95720, 95722, 95724, and 95726	04/20	
Revised policy statement, from “monitored setting (ambulatory or inpatient, including observation),” to “monitored hospital or ambulatory setting.”	09/20	09/20

Reviews, Revisions, and Approvals	Date	Approval Date
References reviewed and updated. Replaced "members" with "members/enrollees' in all instances.		

References

1. Moeller J, Haider HA, Hirsch LJ. Video and ambulatory EEG monitoring in the diagnosis of seizures and epilepsy. In UpToDate, Garcia P (Ed), UpToDate, Waltham, MA. Accessed Sept 1, 2020.
2. American Clinical Neurophysiology Society. Guidelines for Long-Term Monitoring for Epilepsy. (Guideline 12). Accessed Sept 1, 2020. Available at: https://www.acns.org/UserFiles/file/Guideline_Twelve__Guidelines_for_Long_Term.8.pdf
3. Shih JJ, Fountain NB, Herman ST, et al. Indications and methodology for video-electroencephalographic studies in the epilepsy monitoring unit. Epilepsia. 2018 Jan;59(1):27-36. doi: 10.1111/epi.13938. Epub 2017 Nov 10.
4. Hayes Evidence Analysis Research Brief. Home Video Electroencephalogram (VEEG) For Diagnosis and Management of Epilepsy and Seizures in Adults. Jan 8, 2019. Accessed Sept 1, 2020.
5. Bendadis SR, EEG Video Monitoring. Medscape. Updated May 11, 2018.
6. National Institute for Health and Care Excellence (NICE). Epilepsies: diagnosis and management. Clinical guideline CG137, January 2012 Last updated: February 11, 2020.
7. Chen DK. Psychogenic nonepileptic seizures. In UpToDate, Garcia P (Ed), UpToDate, Waltham, MA. Accessed Sept 1, 2020.
8. Wilfong A. Clinical and laboratory diagnosis of seizures in infants and children. In UpToDate. Nordli DR. (Ed). UpToDate, Waltham, MA. Accessed Sept 1, 2020.
9. Friedman DE, Hirsch LJ. How long does it take to make an accurate diagnosis in an epilepsy monitoring unit? J Clin Neurophysiol 2009; 26:213.
10. Moseley BD, Dewar S, Haneef Z, Stern JM. How long is long enough? The utility of prolonged inpatient video EEG monitoring. Epilepsy Res 2015; 109:9.
11. Muniz J, Benbadis SR. Repeating video/EEG monitoring: why and with what results? Epilepsy Behav 2010; 18:472.
12. Hayes Health Technology Assessment. Video Electroencephalogram (VEEG) For Diagnosis and Management of Epilepsy in Adults. Annual review Sept 12, 2017. Archived Dec. 1, 2018. Accessed Sept 1, 2020.
13. Hayes Health Technology Assessment. Video Electroencephalogram (VEEG) For Diagnosis and Treatment of Epilepsy in Children. Annual review August 16, 2017. Archived Nov. 9, 2018. Accessed Sept 1, 2020.
14. Scottish Intercollegiate Guidelines Network. Diagnosis and management of epilepsy in adults. A national clinical guideline. May 2015. Revised 2018.
15. Zijlmans M, Zweiphenning W, van Klink N. Changing concepts in presurgical assessment for epilepsy surgery, Nat Rev Neurol. 2019 Jul 24. doi: 10.1038/s41582-019-0224-y.

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. The Health Plan 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. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

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Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take

precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.