

# Clinical Policy: Video Electroencephalographic (VEEG) Monitoring

Reference Number: PA.CP.MP.177

Effective Date: 01/20

Last Review Date: [New PHW Policy](#)

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

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## 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.<sup>1</sup>

## Policy/Criteria

- I. It is the policy of health plans affiliated with PA Health & Wellness<sup>®</sup> that *video electroencephalographic (VEEG) monitoring* performed in a monitored setting (ambulatory or inpatient, including observation) 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 PA Health & Wellness that outpatient video electroencephalography (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.<sup>2</sup> 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**

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<b>PA.CPT® Codes</b>	<b>Description</b>
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

<b>HPA.CPCS Codes</b>	<b>Description</b>
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
New Policy Created	12/19	

**References**

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