

Electroencephalogram (EEG) Technologies

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Approved By:	Highmark Health Options – Market Leadership
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Products:	Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 16

Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

An Electroencephalogram (EEG) is a recording of the electrical current potentials spontaneously from nerve cells in the brain onto the skull. Variations in wave characteristics correlate with neurological conditions and are used to diagnose conditions.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently serves Delaware Medicaid: Delaware Healthy Children Program (DHCP) and Diamond State Health Plan and Health Plan Plus members.

POLICY POSITION

Transmission of the EEG by internet or disc may be considered medically necessary when the closest medical facilities are located in remote areas which lack trained EEG interpreters or if a trained EEG interpreter is unavailable for individuals with the following indications:

- Altered consciousness, such as stuporous, semi-comatose, or comatose states; or
- Atypical seizure variants in individuals experiencing bizarre, distressing symptoms as seen with "spike and wave stupor" or other forms of seizure disorders; or
- Head injury, where a subdural hematoma may be identified; or
- Differentiation of complicated migraine with epilepsy-like symptoms (e.g., auras, alterations in level of consciousness) from true seizure disorders.

Transmission of the EEG by internet or disc not meeting the criteria as indicated in this policy is considered not medically necessary.

The use of transmission of the EEG to determine electrocerebral silence, i.e., brain death, is considered experimental/investigational because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

Video EEG (VEEG) monitoring may be considered medically necessary for ANY ONE of the following indications and/or conditions:

- The diagnosis cannot be made by neurological examination, standard EEG studies or ambulatory EEG monitoring; or
- Routine surface EEG is not diagnostic of a seizure disorder; or
- Seizure activity is observed clinically but not captured by routine EEG; or
- Seizure activity captured on routine EEG does not yield sufficient qualitative **or** quantitative data to determine a treatment regimen; or
- Antiepileptic drug (AED) withdrawal is needed; or
- Non-neurological causes of symptoms (e.g., syncope and cardiac arrhythmias) have been ruled out; or
- To differentiate epileptic events from nonepileptic seizures such as psychogenic seizures; or
- Individual with intractable epilepsy is being evaluated for surgical intervention; or
- Seizure monitoring of a neonate or child is needed to develop or modify treatment; or
- To monitor neonates with hypoxic-ischemic encephalopathy (HIE) who are being treated with therapeutic hypothermia (TH)

VEEG monitoring not meeting the criteria as indicated in this policy is considered not medically necessary.

Note: Monitoring may be performed on an outpatient or inpatient basis, depending on the frequency and duration of seizure activity and length of time necessary to collect data. Individuals with frequent (at least three per week) intractable minor seizures and those individuals being evaluated for efficacy of drug treatment can be evaluated on an outpatient basis, in three (3) to 12 hours. Inpatient monitoring is required for individuals such as those with seizures that only occur at night, are infrequent, are clinically severe (such as prolonged complex partial seizures) or are provoked by drug withdrawal.

Ambulatory EEGs may be medically necessary in the following circumstances:

- When used in conjunction with ambulatory electrocardiogram (ECG) recordings for seizures suspected to be of cardiogenic origin; or
- When used in conjunction with electro-oculogram (EOG) and electromyogram (EMG) recordings for suspected seizures of sleep disturbances; or
- When used for quantification of seizures in individuals who experience frequent absence seizures; or
- Diagnosis of a seizure disorder (epilepsy) – individuals who have episodes suggestive of epilepsy when history, examination, and routine EEG do not resolve the diagnostic uncertainties, (inconclusive routine EEG); or
- When used in documenting seizures which are precipitated by naturally occurring cyclic events or environmental stimuli which are not reproducible in the hospital or clinic setting; or
- To monitor neonates with HIE who are being treated with TH.

Ambulatory EEGs not meeting the criteria as indicated in this policy is considered not medically necessary.

Ambulatory EEGs are considered experimental/investigational because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature in the following circumstances:

- For the study of neonates or unattended, uncooperative individuals; or
- In localization of seizure focus/foci when the seizure symptoms and/or other EEG recordings indicate the presence of bilateral foci or rapid generalization; or
- For final evaluation of individuals who are being considered as candidates for resective surgery.

Quantitative electroencephalogram (QEEG) may be considered medically necessary when used as an adjunct to traditional EEG and/or diagnostic evaluation of epilepsy when ANY ONE of the following criteria is met:

- The surface or long-term EEG is inconclusive and additional testing for possible epileptic spikes or seizures is needed; or
- Ambulatory recording is needed to facilitate subsequent visual EEG interpretation; or
- There is need for topographic voltage and dipole analysis in pre-surgical candidates with intractable epilepsy:
 - As continuous monitoring in the operating room for the early detection of an acute intracranial complication during cerebrovascular surgery (i.e., intracranial, carotid endarterectomy); or
 - As monitoring for the detection of nonconvulsive seizures in high risk individuals in the intensive care unit and operating room.

QEEG not meeting the criteria as indicated in this policy is considered not medically necessary.

QEEG-based assessment is considered experimental/investigational when used as a diagnostic aid for attention deficit disorder because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature.

Digital analysis of electroencephalogram (DEEG) is considered not medically necessary as there is no evidence that such additional processing and interpretation has been shown to improve outcomes in individual management.

Noncovered Services

The EEG is not useful in the routine evaluation of patients with headache (guideline). This does not exclude the use of EEG to evaluate headache patients with associated symptoms suggesting a seizure disorder, such as atypical migrainous aura or episodic loss of consciousness. Assuming head imaging capabilities are readily available, EEG is not recommended to exclude a structural cause for headache.

The use of EEG testing is typically an outpatient procedure which is only eligible for coverage as an inpatient procedure in special circumstances, including, but not limited to, the presence of a comorbid condition that would require monitoring in a more controlled environment such as the inpatient setting.

PROCEDURE 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 Continous 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).
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).
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.
95957	Digital analysis of Electroencephalogram (eeg); (eg, for epileptic spike analysis).
95961	Functional Cortical And Subcortical Mapping By Stimulation And/or Recording Of Electrodes On Brain Surface, Or Of Depth Electrodes, To Provoke Seizures Or Identify Vital Brain Structures; Initial Hour Of Physician Attendance.
95962	Functional Cortical And Subcortical Mapping By Stimulation And/or Recording Of Electrodes On Brain Surface, Or Of Depth Electrodes, To Provoke Seizures Or Identify Vital Brain Structures; Each Additional Hour Of Physician Attendance (list Separately in Addition To Code For Primary Procedure).
99184	Initiation Of Selective Head Or Total Body Hypothermia in The Critically Ill Neonate, Includes Appropriate Patient Selection By Review Of Clinical, Imaging And Laboratory Data Confirmation Of Esophageal Temperature Probe Location, Evaluation Of Amplitude Eeg, Supervision Of Controlled Hypothermia And Assessment Of Patient Tolerance Of Cooling.

Eligible Diagnosis Codes for 95700, 95705, 95706, 95707, 95708, 95709, 95710, 95711, 95712, 95713, 95714, 95715, 95716, 95717, 95718, 95719, 95720, 95721, 95722, 95723, 95724, 95725, 95726, 95812, 95813, 95816, 95819, 95822, and 99184

A02.21	A17.0	A17.82	A39.0	A39.3
A39.4	A39.81	A41.9	A42.82	A50.41
A50.42	A52.13	A52.14	A52.15	A54.81
A81.00	A81.01	A81.09	A83.0	A83.1
A83.2	A83.3	A83.4	A83.8	A83.9
A84.0	A84.1	A84.89	A84.9	A85.0
A85.1	A85.2	A85.8	A87..0	A87.1
A87.2	A87.8	A87.9	A92.31	A92.5
A92.9A	B00.3	B00.4	B01.11	B02.0
B02.1	B05.0	B06.01	B10.01	B10.09
B10.81	B26.1	B26.2	B37.5	B38.4
B39.4	B39.5	B39.9	B45.1	B83.2
B94.1	C31.9	C41.2	C41.9	C50.911
C69.22	C70.0	C70.1	C70.9	C71.0
C71.1	C71.2	C71.3	C71.4	C71.5
C71.6	C71.7	C71.8	C71.9	C72.0
C72.1	C72.20	C72.21	C72.22	C72.30
C72.31	C72.32	C72.40	C72.41	C72.42
C72.50	C72.59	C72.9	C73	C79.31
C79.49	C79.51	D18.02	D32.0	D32.1
D32.9	D33.0	D33.1	D33.2	D33.3
D33.4	D33.7	D35.5	D36.10	D36.9
D42.0	D42.1	D42.9	D43.0	D43.1
D43.2	D43.4	D44.6	D49.6	D49.7
E03.5	E03.9	E05.00	E75.00	E75.01
E75.02	E75.09	E75.10	E75.11	E75.19
E75.23	E75.25	E75.29	E75.4	E75.6
E88.40	E88.41	F02.80	F02.81	F03.90
F03.91	F04	F05	F06.1	F06.8
F10.239	F10.930	F10.931	F10.932	F10.939
F13.230	F13.231	F13.232	F13.239	F13.930
F13.931	F13.932	F13.939	F15.13	F15.23
F15.93	F19.130	F19.131	F19.132	F19.139
F19.230	F19.231	F19.232	F19.239	F19.930
F19.931	F19.932	F19.939	F28	F29
F41.0	F44.4	F44.5	F44.6	F44.7

F44.89	F44.9	F45.8	F68.8	F84.0
F84.3	F84.5	F84.8	F84.9	F95.0
F95.1	F95.2	F95.8	F95.9	F98.0
F98.1	G00.0	G00.1	G00.2	G00.3
G00.8	G00.9	G01	G02	G03.1
G03.2	G03.8	G03.9	G04.00	G04.01
G04.02	G04.2	G04.30	G04.31	G04.32
G04.39	G04.81	G04.82	G04.89	G04.90
G04.91	G05.3	G05.4	G06.0	G06.1
G06.2	G07	G08	G09	G10
G11.0	G11.10	G11.11	G11.19	G11.2
G11.3	G11.4	G11.8	G11.9	G12.0
G12.1	G12.20	G12.21	G12.22	G12.23
G12.24	G12.25	G12.29	G12.8	G12.9
G13.0	G13.1	G13.2	G13.8	G20
G21.0	G21.11	G21.19	G21.2	G21.3
G21.4	G21.8	G21.9	G23.0	G23.1
G23.2	G23.8	G23.9	G24.01	G24.02
G24.09	G24.1	G24.2	G24.3	G24.4
G24.5	G24.8	G24.9	G25.0	G25.1
G25.2	G25.3	G25.4	G25.5	G25.61
G25.69	G25.70	G25.71	G25.79	G25.81
G25.82	G25.83	G25.89	G25.9	G26
G30.0	G30.1	G30.8	G30.9	G31.01
G31.09	G31.1	G31.2	G31.81	G31.82
G31.83	G31.84	G31.85	G31.80	G31.9
G32.0	G32.81	G32.89	G35	G36.0
G36.1	G36.8	G36.9	G37.0	G37.1
G37.2	G37.3	G37.4	G37.5	G37.8
G37.9	G40.001	G40.009	G40.011	G40.019
G40.101	G40.109	G40.111	G40.119	G40.201
G40.209	G40.211	G40.219	G40.301	G40.309
G40.311	G40.319	G40.401	G40.409	G40.411
G40.419	G40.42	G40.501	G40.509	G40.801
G40.802	G40.803	G40.804	G40.811	G40.812
G40.813	G40.814	G40.821	G40.822	G40.823
G40.824	G40.833	G40.834	G40.89	G40.901
G40.909	G40.911	G40.919	G40.A01	G40.A09

G40.A11	G40.A19	G40.B01	G40.B09	G40.B11
G40.B19	G43.001	G43.109	G43.111	G43.119
G43.501	G43.509	G43.511	G43.519	G43.601
G43.609	G43.611	G43.619	G43.701	G43.709
G43.711	G43.719	G43.801	G43.809B0	G43.811
G43.819	G43.901	G43.909	G43.B0	G43.B1
G45.1	G45.4	G45.8	G45.9	G47.00
G47.01	G47.09	G47.10	G47.11	G47.12
G47.13	G47.14	G47.19	G47.20	G47.21
G47.22	G47.23	G47.24	G47.25	G47.26
G47.27	G47.29	G47.30	G47.31	G47.32
G47.33	G47.34	G47.35	G47.36	G47.37
G47.39	G47.411	G47.419	G47.421	G47.429
G47.50	G47.51	G47.52	G47.53	G47.54
G47.59	G47.8	G47.9	G50.0	G51.4
G52.9	G63	G65.0	G65.1	G65.2
G80.0	G80.1	G80.2	G80.3	G80.4
G80.8	G80.9	G90.01	G90.09	G90.2
G90.3	G90.4	G90.50	G90.511	G90.512
G90.513	G90.521	G90.522	G90.523	G90.59
G90.8	G90.9	G91.0	G91.1	G91.2
G91.3	G91.4	G91.8	G91.9	G92
G92.00	G92.01	G92.02	G92.03	G92.04
G92.05	G92.8	G92.9	G93.0	G93.1
G93.2	G93.40	G93.41	G93.49	G93.5
G93.6	G93.7	G93.89	G93.9	G94
G95.0	G95.11	G95.19	G95.20	G95.29
G95.81	G95.89	G95.9	G96.01	G96.08
G96.12	G96.191	G96.198	G96.810	G96.811
G96.819	G96.89	G96.9	G97.1	G97.31
G97.32	G97.33	G87.83	G97.84	G98.0
G98.8	G99.0	G99.2	G99.9	H53.123
G53.19	G53.9	H55.00	I25.10	I35.0
I35.9	I46.2	I47.20	I47.29	I49.8
I60.00	I60.01	I60.02	I60.10	I60.11
I60.12	I60.2	I60.30	I60.31	I60.32
I60.4	I60.50	I60.51	I60.52	I60.6
I60.7	I60.8	I60.9	I61.0	I61.1

I61.2	I61.3	I61.4	I61.5	I61.6
I61.8	I61.9	I62.00	I62.01	I62.02
I62.03	I62.1	I62.9	I63.00	I63.011
I63.012	I63.013	I63.019	I63.02	I63.031
I63.032	I63.033	I63.039	I63.09	I63.10
I63.111	I63.112	I63.113	I63.119	I63.12
I63.131	I63.132	I63.133	I63.139	I63.19
I63.20	I63.211	I63.212	I63.213	I63.219
I63.22	I63.231	I63.232	I63.233	I63.239
I63.29	I63.30	I63.311	I63.312	I63.313
I63.319	I63.321	I63.322	I63.323	I63.329
I63.331	I63.332	I63.333	I63.339	I63.341
I63.342	I63.349	I63.39	I63.40	I63.411
I63.412	I63.413	I63.419	I63.421	I63.422
I63.423	I63.429	I63.431	I63.432	I63.433
I63.439	I63.441	I63.442	I63.443	I63.449
I63.49	I63.50	I63.511	I63.512	I63.513
I63.519	I63.521	I63.522	I63.523	I63.529
I63.531	I63.532	I63.533	I63.539	I63.541
I63.542	I63.543	I63.549	I63.59	I63.6
I63.81	I63.89	I63.9	I65.01	I65.02
I65.03	I65.09	I65.1	I65.21	I65.22
I65.23	I65.29	I65.8	I65.9	I66.01
I66.02	I66.03	I66.09	I66.11	I66.12
I66.13	I66.19	I66.21	I66.22	I66.23
I66.3	I66.9	I67.0	I67.1	I67.2
I67.3	I67.4	I67.5	I67.6	I67.7
I67.81	I67.82	I67.83	I67.841	I67.848
I67.850	I67.858	I67.89	I67.9	I68.0
I68.2	I69.00	I69.010	I69.011	I69.012
I69.013	I69.014	I69.015	I69.018	I69.019
I69.020	I69.021	I69.022	I69.023	I69.028
I69.031	I69.032	I69.033	I69.034	I69.039
I69.041	I69.042	I69.043	I69.044	I69.049
I69.051	I69.052	I69.053	I69.054	I69.059
I69.061	I69.062	I69.063	I69.064	I69.065
I69.069	I69.090	I69.091	I69.092	I69.093
I69.098	I69.10	I69.110	I69.111	I69.112

I69.113	I69.114	I69.115	I69.118	I69.119
I69.120	I69.121	I69.122	I69.123	I69.128
I69.131	I69.132	I69.133	I69.134	I69.139
I69.141	I69.142	I69.143	I69.144	I69.149
I69.151	I69.152	I69.153	I69.154	I69.159
I69.161	I69.162	I69.163	I69.164	I69.165
I69.169	I69.190	I69.191	I69.192	I69.193
I69.198	I69.20	I69.210	I69.211	I69.212
I69.213	I69.214	I69.215	I69.218	I69.219
I69.220	I69.221	I69.222	I69.223	I69.228
I69.231	I69.232	I69.233	I69.234	I69.239
I69.241	I69.242	I69.243	I69.244	I69.249
I69.251	I69.252	I69.253	I69.254	I69.259
I69.261	I69.262	I69.263	I69.264	I69.265
I69.269	I69.290	I69.291	I69.292	I69.293
I69.298	I69.30	I69.310	I69.311	I69.312
I69.313	I69.314	I69.315	I69.318	I69.319
I69.320	I69.321	I69.322	I69.323	I69.328
I69.331	I69.332	I69.333	I69.334	I69.339
I69.341	I69.342	I69.343	I69.344	I69.349
I69.351	I69.352	I69.353	I69.354	I69.359
I69.361	I69.362	I69.363	I69.364	I69.365
I69.369	I69.390	I69.391	I69.392	I69.393
I69.398	I69.80	I69.810	I69.811	I69.812
I69.813	I69.814	I69.815	I69.819	I69.820
I69.821	I69.822	I69.823	I69.828	I69.831
I69.832	I69.833	I69.834	I69.839	I69.841
I69.842	I69.843	I69.844	I69.849	I69.851
I69.852	I69.853	I69.854	I69.859	I69.861
I69.862	I69.863	I69.864	I69.865	I69.869
I69.890	I69.891	I69.892	I69.893	I69.898
I69.90	I69.910	I69.911	I69.912	I69.913
I69.914	I69.915	I69.918	I69.919	I69.920
I69.921	I69.922	I69.923	I69.928	I69.931
I69.932	I69.933	I69.934	I69.939	I69.941
I69.942	I69.943	I69.944	I69.949	I69.951
I69.952	I69.953	I69.954	I69.959	I69.961
I69.962	I69.963	I69.964	I69.965	I69.969

I69.990	I69.991	I69.992	I69.993	I69.998
I70.8	I71.00	I71.01	I71.02	I71.03
I71.1	I71.2	I71.6	I71.8	I71.9
I72.0	I77.71	I77.74	K70.41	K71.11
K72.01	K72.11	K72.90	K72.91	M34.83
M35.07	M40.295	M41.117	M41.125	M41.126
M41.129	M41.25	M41.26	M41.44	M41.9
M43.02	M43.07	M43.12	M43.16	M43.17
M43.26	M43.8X2	M46.1	M47.12	M47.14
M47.16	M47.22	M47.26	M47.27	M47.812
M47.813	M47.816	M47.817	M47.892	M47.896
M48.02	M48.061	M48.062	M48.07	M50.00
M50.01	M50.021	M50.022	M50.023	M50.121
M50.122	M50.123	M50.20	M50.21	M50.222
M50.223	M50.30	M50.321	M50.322	M51.06
M51.16	M51.17	M51.26	M51.27	M51.36
M51.37	M51.86	M51.9	M53.2X8	M53.85
M54.12	M54.14	M54.16	M54.17	M54.2
M54.32	M54.41	M54.5	M71.38	M80.88XA
M85.852	M96.0	M96.1	M99.63	M99.71
M99.73	N52.9	N75.0	N83.291	P28.2
P28.40	P28.41	P28.42	P28.4323	P28.49
P36.9	P84	P90	P91.0	P91.1
P91.3	P91.4	P91.5	P91.60	P91.61
P91.62	P91.63	P91.811	P91.819	P91.88
P91.9	P96.89	Q04.3	Q04.8	Q06.8
Q07.00	Q07.8	Q27.30	Q27.39	Q28.2
Q28.3	Q85.01	Q85.1	Q99.8	Q99.9
R00.0	R05.4	R06.81	R25.0	R25.1
R25.2	R25.3	R25.8	R25.9	R26.0
R26.1	R26.89	R29.5	R29.818	R29.90
R40.0	R40.1	R40.20	R40.2110	R40.2111
R40.2112	R40.2113	R40.2114	R40.2120	R40.2121
R40.2122	R40.2123	R40.2124	R40.2210	R40.2211
R40.2212	R40.2213	R40.2214	R40.2220	R40.2221
R40.2222	R40.2223	R40.2224	R40.2310	R40.2311
R40.2312	R40.2313	R40.2314	R40.2320	R40.2321
R40.2322	R40.2323	R40.2324	R40.2340	R40.2341

R40.2342	R40.2343	R40.2344	R40.2350	R40.2351
R40.2352	R50.2353	R50.2354	R40.2361	R40.2362
R40.2364	R40.3	R40.4	R41.0	R41.3
R41.4	R41.82	R41.89	R42	R43.2
R44.0	R44.1	R44.2	R44.3	R45.1
R45.4	R47.01	R47.02	R47.1	R47.81
R47.89	R55	R56.1	R56.9	R94.01
S06.0X0A	S06.0X0D	S06.0X0S	S06.0X1A	S06.0X1D
S06.0X1S	S06.0X9A	S06.0X9D	S06.0X9S	S06.1X0A
S06.1X0D	S06.1X0S	S06.1X1A	S06.1X1D	S06.1X1S
S06.1X2A	S06.1X2D	S06.1X2S	S06.1X3A	S06.1X3D
S06.1X3S	S06.1X4A	S06.1X4D	S06.1X4S	S06.1X5A
S06.1X5D	S06.1X5S	S06.1X6A6S	S06.1X6D	S06.1X6S
S06.1X7A	S06.1X8A	S06.1X9A	S06.1X9D	S06.1X9S
S06.1XAA	S06.1XAD	S06.1XAS	S06.2X0A	S06.2X0D
S06.2X0S	S06.2X1A	S06.2X1D	S06.2X1S	S06.2X2A
S06.2X2D	S06.2X2S	S06.2X3A	S06.2X3D	S06.2X3S
S06.2X4A	S06.2X4D	S06.2X4S	S06.2X5A	S06.2X5D
S06.2X5S	S06.2X6A	S06.2X6D	S06.2X6S	S06.2X7A
S06.2X8A	S06.2X9A	S06.2X9D	S06.2X9S	S06.2XAA
S06.2XAD	S06.2XAS	S06.301A	S06.301D	S06.301S
S06.302A	S06.302D	S06.302S	S06.303A	S06.303D
S06.303S	S06.304A	S06.304D	S06.304S	S06.305A
S06.305D	S06.305S	S06.306A	S06.306D	S06.306S
S06.307A	S06.308A	S06.309A	S06.309D	S06.309S
S06.30AA	S06.30AD	S06.30AS	S06.310A	S06.310D
S06.310S	S06.311A	S06.311D	S06.311S	S06.312A
S06.312D	S06.312S	S06.313A	S06.313D	S06.313S
S06.314A	S06.314D	S06.315A	S06.315D	S06.315S
S06.316A	S06.316D	S06.316S	S06.317A	S06.318A
S06.319A	S06.319D	S06.319S	S06.320A	S06.320D
S06.320S	S06.321A	S06.321D	S06.321S	S06.322A
S06.322D	S06.322S	S06.323A	S06.323D	S06.323S
S06.324A	S06.324D	S06.324S	S06.325A	S06.325D
S06.325S	S06.326A	S06.326D	S06.326S	S06.327A
S06.328A	S06.329A	S06.329D	S06.329S	S06.330A
S06.330D	S06.330S	S06.331A	S06.331D	S06.331S
S06.332A	S06.332D	S06.332S	S06.333A	S06.333D

S06.333S	S06.334A	S06.334D	S06.334S	S06.335A
S06.335D	S06.335S	S06.336A	S06.336D	S06.336S
S06.337A	S06.338A	S06.339A	S06.339D	S06.339S
S06.340A	S06.340D	S06.340S	S06.341A	S06.341D
S06.341S	S06.342A	S06.342D	S06.342S	S06.343A
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S06.356S	S06.357A	S06.358A	S06.359A	S06.359D
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S06.361D	S06.361S	S06.362A	S06.362D	S06.362S
S06.363A	S06.363D	S06.363S	S06.364A	S06.364D
S06.364S	S06.365A	S06.365D	S06.365S	S06.366A
S06.366D	S06.366S	S06.367A	S06.368A	S06.369A
S06.369D	S06.369S	S06.370A	S06.370D	S06.370S
S06.371A	S06.371D	S06.371S	S06.372A	S06.372D
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S06.376A	S06.376D	S06.376S	S06.377A	S06.378A
S06.379A	S06.379D	S06.379S	S06.380A	S06.380D
S06.380S	S06.381A	S06.381D	S06.381S	S06.382A
S06.382D	S06.382S	S06.383A	S06.383D	S06.383S
S06.384A	S06.384D	S06.384S	S06.385A	S06.385D
S06.385S	S06.386A	S06.386D	S06.386S	S06.387A
S06.388A	S06.389A	S06.389D	S06.389S	S06.4X0A
S06.4X0D	S06.4X0S	S06.4X1A	S06.4X1D	S06.4X1S
S06.4X2A	S06.4X2D	S06.4X2S	S06.4X3A	S06.4X3D
S06.4X3S	S06.4X4A	S06.4X4D	S06.4X4S	S06.4X5A
S06.4X5D	S06.4X5S	S06.4X6A	S06.4X6D	S06.4X6S
S06.4X7A	S06.4X8A	S06.4X9A	S06.4X9D	S06.4X9S
S06.5X0A	S06.5X0D	S06.5X0S	S06.5X1A	S06.5X1D
S06.5X1S	S06.5X2A	S06.5X2D	S06.5X3A	S06.5X3D
S06.5X3S	S06.5X4A	S06.5X4D	S06.5X4S	S06.5X5A
S06.5X5D	S06.5X5S	S06.5X6A	S06.5X6D	S06.5X6S

S06.5X7A	S06.5X8A	S06.5X9A	S06.5X9D	S06.5X9S
S06.6X0A	S06.6X0D	S06.6X0S	S06.6X1A	S06.6X1D
S06.6X1S	S06.6X2A	S06.6X2D	S06.6X2S	S06.6X3A
S06.6X3D	S06.6X3S	S06.6X4A	S06.6X4D	S06.6X4S
S06.6X5A	S06.6X5D	S06.6X5S	S06.6X6A	S06.6X6D
S06.6X6S	S06.6X7A	S06.6X8A	S06.6X9A	S06.6X9S
S06.890S	S06.891S	S06.892S	S06.893S	S06.894S
S06.895S	S06.896S	S06.89AA	S06.89AD	S06.89AS
S06.9X9A	S06.9X9D	S06.9XAA	S06.9XAD	S06.9XAS
S12.600A	S12.9XXA	S14.109A	S14.3XXA	S14.3XXD
S22.068A	S32.009K	S32.019A	S32.020A	S32.89XA
S33.5XXA	T42.6X1A	T68.XXXA		

Covered Diagnosis Code for Procedure Code 95824

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References

InterQual® Level of Care Criteria. Acute Care Adult. 2021.

Fahimi G, Tabatabaei S, Fahimi E, Rajebi H. Index of theta/alpha ratio of the quantitative electroencephalogram in Alzheimer's disease: A case-control study. *Acta Medica Iranica*. 2017;55(8):502-506.

Cassani R, Estarellas M, San-Martin R, et al. Systematic review on resting-state EEG for Alzheimer's disease diagnosis and progression assessment. *Dis Markers*. 2018.

Bentes C, Martins H, Peralta AR, et al. Early EEG predicts poststroke epilepsy. *Epilepsia Open*. 2018;3(2):203-12.

Ghazavi Y, Zarchi EA, Taheri T, et al. Long-term Video-EEG monitoring findings in children and adolescents with intractable epilepsy. *Iran J Child Neurol*. 2017;11(4):23.

Mousa AA, Elshazly NZ, Mansour LA, et al. EEG indices in children with primary headache disorders. *Neurophysiol*. 2017;49(5):349-56.

Lin CT, Chuang CH, Cao Z, et al. Forehead EEG in support of future feasible personal healthcare solutions: Sleep management, headache prevention, and depression treatment. *IEEE Access*. 2017; 5:10612-21.

Baumgartner C, Pirker S. Video-EEG. *Handb Clin Neurol*. 2019; 160:171-183.

Anwar H, Khan QU, Nadeem N, Pervaiz I, et al. Epileptic seizures. *Discoveries (Craiova)*. 2020;8(2): e110.

Glass HC. Hypoxic-ischemic encephalopathy and other neonatal encephalopathies. *Continuum (Minneapolis)*. 2018;24(1, Child Neurology):57-71.

Hayes, Inc. Hayes Evolving Evidence Review. Home Video Electroencephalogram (VEEG) for Diagnosis and Management of Epilepsy and Seizures in Adults. Lansdale, PA: Hayes, Inc.; 05/05/2021.

Hayes, Inc. Hayes Evidence Analysis Research Brief. Use of Quantitative Electroencephalography to Predict treatment Response to Psychotropic Medication Use in Patients with Mood Disorders. Lansdale, PA: Hayes, Inc.; 02/23/2021.

van Dijk H, deBeus R, Kerson C, et al. Different spectral analysis methods for the theta/beta ratio calculate different ratios but do not distinguish ADHD from controls. *Appl Psychophysiol Biofeedback*. 2020;45(3):165-173.

Benedetti GM, Vartanian RJ, McCaffery H, Shellhaas RA. Early electroencephalogram background could guide tailored duration of monitoring for neonatal encephalopathy treated with therapeutic hypothermia. *J Pediatr*. 2020; 221:81-87. e1.

Cox FM, Reus EE, Visser GH. Timing of first event in inpatient long-term video-EEG monitoring for diagnostic purposes. *Epilepsy Res*. 2017; 129:91-94.

Mumtaz W, Vuong PL, Malik AS, Rashid RBA. A review on EEG-based methods for screening and diagnosing alcohol use disorder. *Cogn Neurodyn*. 2018;12(2):141-156.

Mumtaz W, Vuong PL, Xia L, Malik AS, Rashid RBA. An EEG-based machine learning method to screen alcohol use disorder. *Cogn Neurodyn*. 2017;11(2):161-171.

Pana R, Labbé A, Dubeau F, Kobayashi E. Evaluation of the "non-epileptic" patient in a tertiary center epilepsy clinic. *Epilepsy Behav*. 2018; 79:100-105.

Hasan TF, Tatum WO. When should we obtain a routine EEG while managing people with epilepsy? *Epilepsy Behav Rep*. 2021; 16:100454.

Hernández-Ronquillo L, Thorpe L, Dash D, et al. Diagnostic accuracy of the ambulatory EEG vs. routine EEG for first single unprovoked seizures and seizure recurrence: The DX-Seizure Study. *Front Neurol*. 2020; 11:223.

Rossetti AO, Schindler K, Sutter R, et al. Continuous vs routine electroencephalogram in critically ill adults with altered consciousness and no recent seizure: A multicenter randomized clinical trial. *JAMA Neurol*. 2020;77(10):1225-1232.

Hayes, Inc. Hayes Clinical Research Response. Ceribell (Ceribell Inc.) Rapid Response Electroencephalogram (EEG) for the Detection of Seizure Activity in Adults. Lansdale, PA: Hayes, Inc.; 11/24/2021.

POLICY UPDATE HISTORY

10/8/2021	Approved in Medical Policy Committee
10/28/2021	Approved in QI/UM
06/22/2022	Annual review; approved in Medical Policy Committee
07/26/2023	Approved in QI/UM

05/24/2023	Medical Policy Committee
05/30/2023	Approved in QI/UM