

Intraoperative Neurophysiological Monitoring, Surgical 40

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All requests for authorization for the services described by this medical policy will be reviewed per Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*.

Description & Definitions:

Intraoperative Neurophysiological Monitoring consists of monitoring the nervous system in “real-time” during surgery. Types of monitoring that can be used based with this type of surgery include Electromyogram (EMG), Direct Cortical Stimulation, Brainstem Auditory-evoked Potentials, Electrocochography (ECoG), Somatosensory-evoked Potentials (SSEP), Motor Evoked Potentials (MEP), Electroencephalogram (EEG), and Nerve Conduction Velocity testing.

Criteria:

Intraoperative neuromonitoring is considered medically necessary for **all of the following**:

- Physician billing for intraoperative neurophysiological monitoring as well as any neurophysiology testing is not the surgeon or in same vendor group as the surgeon performing a surgical procedure at time of the neuro monitoring
- The neuro monitoring is **1 of the following**:
 - One on one intraoperative neuromonitoring located in the operating room is considered medically necessary for **1 or more of the following**:
 - Surgery with risk of cerebral ischemia including **1 or more of the following**;
 - Aortic arch
 - Aortic arch branch vessels
 - Thoracic aorta
 - Internal carotid artery surgery

- Resection of epileptogenic brain tissue or tumor
- Protection of cranial nerves including **1 or more of the following:**
 - Resection of tumors involving the cranial nerves
 - Microvascular decompressive surgeries
 - Skull-base surgery in the vicinity of the cranial nerves
 - Surgeries of the foramen magnum
 - Cavernous sinus tumors
 - Oval or round window graft
 - Endolymphatic shunt for Meniere's disease
 - Vestibular section for vertigo
- Tympanoplasty
- Correction of scoliosis or deformity of spinal cord involving traction on the cord
- Decompressive procedures on the spinal column or cauda equine with **1 or more of the following:**
 - Performed for myelopathy or claudication
 - Where the function of spinal cord or spinal nerves is at risk
- During placement of internal spinal fixation devices where nervous system function is at work
- Spinal cord tumors and spinal fractures with the risk of cord compression
- Neuromas of peripheral nerves or brachial plexus when risk to major sensory or motor nerves exist
- Leg-lengthening procedures when there is traction on the sciatic nerve
- Surgery as a result of traumatic injury to the spinal cord or surgery for arteriovenous malformation of the spinal cord
- Surgery or embolization for intracranial arteriovenous malformations
- Embolization of bronchial artery arteriovenous malformations or tumors
- Arteriography during which there is a test occlusion of the carotid artery
- Circulatory arrest with hypothermia
- Distal aortic procedures where there is risk of ischemia to spinal cord
- Remote one on one intraoperative neuromonitoring is considered medically necessary for **1 of the following:**
 - Individual has **1 or more of the following:**
 - Surgery with risk of cerebral ischemia including **1 or more of the following;**
 - Aortic arch
 - Aortic arch branch vessels
 - Thoracic aorta
 - Internal carotid artery surgery
 - Resection of epileptogenic brain tissue or tumor
 - Protection of cranial nerves including **1 or more of the following:**
 - Resection of tumors involving the cranial nerves
 - Microvascular decompressive surgeries
 - Skull-base surgery in the vicinity of the cranial nerves
 - Surgeries of the foramen magnum
 - Cavernous sinus tumors
 - Oval or round window graft
 - Endolymphatic shunt for Meniere's disease
 - Vestibular section for vertigo
 - Tympanoplasty
 - Correction of scoliosis or deformity of spinal cord involving traction on the cord
 - Decompressive procedures on the spinal column or cauda equine with **1 or more of the following:**
 - Performed for myelopathy or claudication
 - Where the function of spinal cord or spinal nerves is at risk
 - During placement of internal spinal fixation devices where nervous system function is at work
 - Spinal cord tumors and spinal fractures with the risk of cord compression
 - Neuromas of peripheral nerves or brachial plexus when risk to major sensory or motor nerves exist
 - Leg-lengthening procedures when there is traction on the sciatic nerve

- Surgery as a result of traumatic injury to the spinal cord or surgery for arteriovenous malformation of the spinal cord
- Surgery or embolization for intracranial arteriovenous malformations
- Embolization of bronchial artery arteriovenous malformations or tumors
- Arteriography during which there is a test occlusion of the carotid artery
- Circulatory arrest with hypothermia
- Distal aortic procedures where there is risk of ischemia to spinal cord

Intraoperative neurophysiological monitoring is considered **not medically necessary** for any use other than those indicated in clinical criteria, to include but not limited to:

- During intra-thecal pump adjustment
- During radiofrequency ablation/denervation procedures
- During sacroiliac joint injection
- Hip replacement surgery
- Implantation of a spinal cord stimulator
- Off-pump coronary artery bypass
- Submandibular gland excision
- Thyroid and parathyroid surgery

Document History:

Revised Dates:

- 2022: April
- 2020: March
- 2019: September
- 2015: February, March, October
- 2013: March, December
- 2012: June, August

Reviewed Dates:

- 2025: March – Implementation date of 6/1/2025. No changes references updated
- 2024: March
- 2023: March
- 2021: April
- 2020: April
- 2018: August
- 2017: November
- 2016: February
- 2014: February

Effective Date:

- December 2011

Coding:

Medically necessary with criteria:

Coding	Description
95940	Continuous intraoperative neurophysiology monitoring in the operating room, one on one monitoring requiring personal attendance, each 15 minutes (List separately in addition to code for primary procedure)

95941	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby) or for monitoring of more than one case while in the operating room, per hour (List separately in addition to code for primary procedure)
G0453	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby), per patient, (attention directed exclusively to one patient) each 15 minutes (list in addition to primary procedure)

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

The preceding codes are included above for informational purposes only and may not be all inclusive. Additionally, inclusion or exclusion of a treatment, procedure, or device code(s) does not constitute or imply member coverage or provider reimbursement.

Special Notes: *

- Coverage:
 - See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.
- Application to products:
 - Policy is applicable to Sentara Health Plan Virginia Medicaid products.
- Authorization requirements:
 - Pre-certification by the Plan is required.
- Special Notes:
 - Medicaid
 - This medical policy express Sentara Health Plan's determination of medically necessity of services, and they are based upon a review of currently available clinical information. These policies are used when no specific guidelines for coverage are provided by the Department of Medical Assistance Services of Virginia (DMAS). Medical Policies may be superseded by state Medicaid Plan guidelines. Medical policies are not a substitute for clinical judgment or for any prior authorization requirements of the health plan. These policies are not an explanation of benefits.
 - Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.
 - The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) covers services, products, or procedures for children, if those items are determined to be medically necessary to "correct or ameliorate" (make better) a defect, physical or mental illness, or condition (health problem) identified through routine medical screening or examination, regardless of whether coverage for the same service or support is an optional or limited service under the state plan. Children enrolled in the FAMIS Program are not eligible for all EPSDT treatment services. All requests for authorization for the services described by this medical policy will be reviewed per EPSDT guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services

(DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.

- Service authorization requests must be accompanied by sufficient clinical records to support the request. Clinical records must be signed and dated by the requesting provider within 60 days of the date of service requested.

References:

Including but not limited to: Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

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28th Edition. (2025). Retrieved 2 2025, from MCG: <https://careweb.careguidelines.com/ed28/index.html>

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Provider Manuals. (2025). Retrieved 2 2025, from DMAS: <https://www.dmas.virginia.gov/for-providers/>

Keywords:

neuro, monitoring, intra, intraoperative, operative, electroencephalogram , neuromonitoring, Intraoperative Neurophysiological Monitoring, SHP Surgical 40, IONM, cerebral ischemia, Aortic arch, Aortic arch branch vessels, Thoracic aorta, Internal carotid artery surgery, epileptogenic brain tissue, epileptogenic brain tumor, cranial nerves, Tympanoplasty, embolization, Arteriography, Neuromas, Spinal cord tumors, spinal fractures, cord compression, Electromyogram (EMG), Direct Cortical Stimulation, Brainstem Auditory-evoked Potentials, Electrocorticography (ECoG), Somatosensory-evoked Potentials (SSEP), Motor Evoked Potentials (MEP), Electroencephalogram (EEG), and Nerve Conduction Velocity testing