NO. 91646

INTRAOPERATIVE NEUROPHYSIOLOGICAL MONITORING

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Policy scope:

Related policies:

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SUMMARY OF CHANGES – R

Deletions:

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Additions:

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Changes:

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Clarifications:

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I. MEDICAL NECESSITY CRITERIA

A. Medical necessity, indications: To establish medical necessity the following guidelines must be followed:

Intraoperative testing may be indicated with the following types of surgery:

1. Surgery of the aortic arch, its branch vessels, or thoracic aorta, including internal carotid artery surgery, when there is risk of cerebral ischemia
2. Resection of epileptogenic brain tissue or tumor
3. Resection of brain tissue close to the primary motor cortex and requiring brain mapping
4. Protection of cranial nerves:
    a. tumors that are optic, trigeminal, facial, auditory nerves
    b. cavernous sinus tumors
    c. oval or round window graft
    d. endolymphatic shunt for Ménière's disease
    e. vestibular section for vertigo
    f. microvascular decompression of cranial nerves
5. Correction of scoliosis or deformity of spinal cord involving traction on the cord
6. Protection of spinal cord where work is performed in close proximity to cord as in the removal of old hardware or where there have been numerous interventions
7. Spinal instrumentation requiring pedicle screws or distraction
8. Decompressive procedures on the spinal cord or cauda equina carried out for myelopathy or claudication where function of spinal cord or spinal nerves is at risk
9. Resection of:
    a. Spinal cord tumors
    b. Neuromas of peripheral nerves or brachial plexus, when there is risk to major sensory or motor nerves
10. Surgery for:
    a. intracranial AV malformations
    b. arteriovenous malformation of spinal cord
    c. surgery for intractable movement disorders
    d. cerebral vascular aneurysms
11. Arteriography, during which there is a test occlusion of the carotid artery
12. Circulatory arrest with hypothermia
13. Distal aortic procedures, where there is risk of ischemia to spinal cord
14. Leg lengthening procedures, where there is traction on sciatic nerve or other nerve trunks
15. Basil ganglia movement disorders
16. Surgery as a result of traumatic injury to spinal cord/brain
17. Deep brain stimulation

B. Limitations/exclusions:
    1. Intraoperative neurophysiological monitoring must be requested by the operating surgeon and the monitoring must be performed by a physician, other than:

a. The operating surgeon
b. The technical/surgical assistant; or
c. The anesthesiologist rendering the anesthesia

2. Intraoperative neurophysiological monitoring is not medically necessary in situations where historical data and current practices reveal no potential for damage to neural integrity during surgery
3. Intraoperative neurophysiological monitoring is considered not medically necessary for lumbar spinal fusion procedures

II. CENTERS FOR MEDICARE & MEDICAID SERVICES (CMS) COVERAGE DETERMINATION

Any applicable federal or state mandates will take precedence over this medical coverage policy.

Medicare: Refer to the CMS Online Manual System (IOMs) and Transmittals.
For the most current applicable CMS National Coverage Determination (NCD)/Local Coverage Determination (LCD)/Local Coverage Article (LCA) refer to CMS Medicare Coverage Database.

The information below is current as of the review date for this policy. However, the coverage issues and policies maintained by CMS are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. MAC jurisdiction for purposes of local coverage determinations is governed by the geographic service area where the Medicare Advantage plan is contracted to provide the service. Please refer to the Medicare Coverage Database website for the most current applicable NCD, LCD, LCA, and CMS Online Manual System/Transmittals.

National Coverage Determinations (NCDs)	
None identified	
Local Coverage Determinations (LCDs)	
CGS Administrators, LLC	None identified
First Coast Service Options, Inc.	Somatosensory Testing L33958 A57540
National Government Services, Inc.	None identified
Noridian Healthcare Solutions	None identified
Novitas Solutions, Inc.	Intraoperative Neurophysiological Testing L35003 A56722
Palmetto GBA	None identified
WPS Insurance Corporation	Intraoperative Neurophysiological Testing L34623 A57604

III. BACKGROUND

From: Principles of Coding for Intraoperative Neurophysiologic Monitoring (IOM) and Testing. American Academy of Neurology. August 2018:

Intraoperative neurophysiologic monitoring (IOM) and testing are medical procedures that have been in standard practice for almost 30 years. The procedures allow monitoring of neurophysiologic signals during a surgical procedure whenever the neuroaxis is at risk as a consequence of either the surgical manipulation or the surgical environment. IOM is an umbrella monitoring term and includes **electroencephalography (EEG), cranial nerve evoked potentials (EPs), brain-stem**

auditory EPs (BAEPs), motor EPs (MEP), somatosensory EPs (SEP), nerve conduction, and electromyography (EMG) signals. Much like the other instrumental clinical monitoring technologies, such as cardiac or capnic monitoring, randomized controlled trials establishing efficacy of IOM have not been done. Current best data, accumulated over the past two decades, have been derived through comparisons with historical controls and in the number of complications avoided through IOM. Difficulties in procedural blinding would impede accumulation of randomized controlled data.

IOM is of value in surgeries at diverse locations. The types of diseases for which monitoring is helpful also vary. For instance, IOM may be necessary for carotid endarterectomies, removal of cortical-hemispheric lesions, extirpation of epileptic foci, brain stem surgeries, spinal corrections and peripheral nerve repairs to name some examples. IOM is used in neurosurgery, orthopedic, vascular, cardiothoracic and other surgical specialties. The quality, extent and type of monitoring are dependent on the nature and location of the lesions. The utility of monitoring is exquisitely reliant on the rigors of the monitoring procedure and protocols, and the clinical expertise of the monitoring physician.

In a systematic review and meta-analysis by Reddy and colleagues (2023), the utility of transcranial motor-evoked potential changes in predicting postoperative deficits in lumbar decompression and fusion surgery was evaluated. Eight studies consisting of 4,923 patients were included. The incidence of deficits in patients with significant transcranial motor-evoked potential (TcMEP) changes was 11.79% (27/229), while the incidence in those without changes was 0.19% (9/4694). All TcMEP alarms had a pooled sensitivity and specificity of 63 and 95% with a DOR of 34.92 (95% CI 7.95-153.42). Transient and persistent changes had sensitivities of 29% and 47%, specificities of 96% and 98%, and DORs of 8.04 and 66.06, respectively. The authors concluded that TcMEP monitoring has high specificity but low sensitivity for predicting postoperative neurological deficit in lumbar decompression and fusion surgery. (Reddy et al., 2023)

A 2022 systematic review aimed to examine the types of neuromonitoring used in lateral approaches for lumbar interbody fusion and associated neurologic complications. A total of 34 studies were included in the review. Twenty lateral lumbar interbody fusion (LLIF) articles had IONM, whereas 1 LLIF article did not have IONM. Three oblique lateral interbody fusion (OLIF) articles specified IONM, whereas 6 OLIF articles did not have IONM. Two articles had patients undergoing either LLIF or OLIF. For LLIF, overall neurologic complications, motor weakness, and sensory deficits were 19.8%, 7.6%, and 10.6%, respectively. OLIF overall neurologic complications, motor weakness, and sensory deficits were 5.9%, 2.9%, and 3.2%, respectively. Neurologic outcomes with IONM were not superior compared to without IONM in either LLIF or OLIF. The authors concluded that neurologic complication rates in LLIF remain high despite utilization of IONM. Use of IONM did not benefit neurologic outcomes. (Nie et al., 2022).

Guidelines/Position Statements

- American Academy of Neurologic Surgeons/Congress of Neurological Surgeons: Guidelines for the Use of Electrophysiological Monitoring for Surgery of the Human Spinal Column and Spinal Cord (Hadley et al., 2017)
    - "There is insufficient evidence to suggest a therapeutic relationship between electrophysiological monitoring, including SSEP and MEP recordings, during spinal cord/spinal column surgery, and neurological outcome; its use is not recommended for this purpose. While intraoperative monitoring (IOM) may

detect a neurological injury during spinal surgery, its use does not result in improved neurological outcome, even when IOM alerts occur."

  - "While IOM may be considered to be integral to the technique for lateral approaches, there is insufficient evidence to support a recommendation for or against its use as a therapeutic adjunct with respect to a reduction in iatrogenic nerve injury and/or improvement in postoperative neurological outcome."
  - "At present, there is insufficient evidence to support IOM during spinal surgery as a cost-effective measure. Due to the lack of evidence supporting IOM as an effective therapeutic adjunct, the expense of IOM and its interpretation during spinal column/spinal cord surgery may not justify its use in attempting to prevent iatrogenic spinal cord injury."

- American Academy of Neurologic Surgeons: Guideline update for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 15: Electrophysiological monitoring and lumbar fusion (Sharan et al., 2014)
  - “The data are insufficient to support a recommendation regarding the use of neuromonitoring as a modality that can be used for the preservation of nerve root function during lumbar fusion surgery” (one Level IV study).
  - “Intraoperative monitoring (IOM) is commonly used during lumbar fusion surgery for the prevention of nerve root injury. Justification for its use stems from the belief that IOM can prevent nerve root injury during the placement of pedicle screws. A thorough literature review was conducted to determine if the use of IOM could prevent nerve root injury during the placement of instrumentation in lumbar or lumbosacral fusion. There is no evidence to date that IOM can prevent injury to the nerve roots. There is limited evidence that a threshold below 5 mA from direct stimulation of the screw can indicate a medial pedicle breach by the screw. Unfortunately, once a nerve root injury has taken place, changing the direction of the screw does not alter the outcome. The recommendations formulated in the original guideline effort are neither supported nor refuted with the evidence obtained with the current studies.”

From: Intraoperative Neurophysiological Testing. Local Coverage Determination (LCD) L34623. Wisconsin Physicians Service Insurance Corporation. Centers for Medicare & Medicaid Services (CMS):

- Intraoperative neurophysiological testing may be used to identify/prevent complications during surgery on the nervous system, its blood supply, or adjacent tissue.
- Monitoring can identify new neurologic impairment, identify, or separate nervous system structures (e.g., around or in a tumor), and can demonstrate which tracts or nerves are still functional. Intraoperative neurophysiological testing may provide relative reassurance to the surgeon that no identifiable complication has been detected up to a certain point, allowing the surgeon to proceed further and provide a more thorough or careful surgical intervention than would have been provided in the absence of monitoring.

- Some high-risk patients may be candidates for a surgical procedure only if monitoring is available.

IV. GUIDELINES / POSITION STATEMENTS

Medical/Professional Society	Guideline
American Clinical Neurophysiology Society (ACNS)	GUIDELINES Recommended Standards for Neurophysiologic Intraoperative Monitoring – Principles (11A; October 2009) Recommended Standards for Intraoperative Monitoring of Somatosensory Evoked Potentials (11B; October 2009) Recommended Standards for Intraoperative Monitoring of Auditory Evoked Potentials (11C; October 2009) Evidence-Based Guideline Update: Intraoperative Spinal Monitoring with Somatosensory and Transcranial Electrical motor Evoked Potentials (11; December 2012)
American Society of Neurophysiological Monitoring (ASNM)	Practice guidelines for the supervising professional: intraoperative neurophysiological monitoring (Gertsch JH et al., 2019) Intraoperative somatosensory evoked potential (SEP) monitoring: an updated position statement by the American Society of Neurophysiological Monitoring (Toleikis JR et al., 2024) Guidelines for Intraoperative Monitoring Using Raw (Analog or Digital Platforms) and Quantitative Encephalography: A Position Statement by the American Society of Neurophysiological Monitoring (Isley MR et al., 2009)
Congress of Neurological Surgeons (CNS)	Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines on Intraoperative Cranial Nerve Monitoring in Vestibular Schwannoma Surgery (Vivas E et al., 2018)

	Guideline update for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 15: electrophysiological monitoring and lumbar fusion (Sharan A et al., 2014) Guidelines for the Use of Electrophysiological Monitoring for Surgery of the Human Spinal Column and Spinal Cord (Hadley et al., 2017)
Korean Society of Intraoperative Neurophysiological Monitoring	Clinical practice guidelines for intraoperative neurophysiological monitoring: 2020 update (KSoINM 2021)

V. REGULATORY (US FOOD AND DRUG ADMINISTRATION)

See U.S. Food & Drug Administration (FDA) Medical Device Databases for the most current information.

Device	Premarket Approval, 513(f)(2)(De Novo), or 510(k) Number	Decision date
GWF – Stimulator, Electrical, Evoked Response		
SafeOp 3: Neural Informatix System (Alphatec Spine, Inc.)	K252842	01/11/2026
Nicolet EDX (Natus Neurology Incorporated)	K243982	01/22/2025
Natus Ultrapro S100 (982A0594) (Natus Neurology Incorporated)	K243495	12/12/2024
Delphi Stimulator (Quantalx Neuroscience)	K242345	11/05/2024
ISIS Headboxes, ISIS Neurostimulator, ISIS Xpert Plus, ISIS Xpert, ISIS Xpress (Inomed Medizintechnik GmbH)	K233292	10/27/2023

VI. CODING

See also *Priority Health Medical Policy No. 91636 - Category III Current Procedural Terminology (CPT®) Codes ("T" codes)*

See also *Priority Health Billing Policy No. 138 – Intraoperative Neurophysiological Testing*

See also *Principles of Coding for Intraoperative Neurophysiologic Monitoring (IOM) and Testing*. American Academy of Neurology. August 2018

CPT/HCPCS Codes

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)

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)

Not payable:

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)

ICD-10 Codes that may support medical necessity

A18.01	Tuberculosis of spine
C41.2	Malignant neoplasm of vertebral column
C70.0	Malignant neoplasm of cerebral meninges
C70.1	Malignant neoplasm of spinal meninges
C72.0	Malignant neoplasm of spinal cord
C72.1	Malignant neoplasm of cauda equina
C72.21	Malignant neoplasm of right olfactory nerve
C72.22	Malignant neoplasm of left olfactory nerve
C72.31	Malignant neoplasm of right optic nerve
C72.32	Malignant neoplasm of left optic nerve
C72.41	Malignant neoplasm of right acoustic nerve
C72.42	Malignant neoplasm of left acoustic nerve
C72.50	Malignant neoplasm of unspecified cranial nerve
C72.59	Malignant neoplasm of other cranial nerves
C72.9	Malignant neoplasm of central nervous system, unspecified
C73	Malignant neoplasm of thyroid gland
C79.31	Secondary malignant neoplasm of brain
C79.32	Secondary malignant neoplasm of cerebral meninges
C79.49	Secondary malignant neoplasm of other parts of nervous system
D21.0	Benign neoplasm of connective and other soft tissue of head, face and neck
D32.0	Benign neoplasm of cerebral meninges
D32.1	Benign neoplasm of spinal meninges
D33.0	Benign neoplasm of brain, supratentorial
D33.1	Benign neoplasm of brain, infratentorial
D33.2	Benign neoplasm of brain, unspecified
D33.3	Benign neoplasm of cranial nerves
D33.4	Benign neoplasm of spinal cord
D33.7	Benign neoplasm of other specified parts of central nervous system
D33.9	Benign neoplasm of central nervous system, unspecified
D42.0	Neoplasm of uncertain behavior of cerebral meninges
D42.1	Neoplasm of uncertain behavior of spinal meninges
D42.9	Neoplasm of uncertain behavior of meninges, unspecified

D43.0	Neoplasm of uncertain behavior of brain, supratentorial
D43.1	Neoplasm of uncertain behavior of brain, infratentorial
D43.2	Neoplasm of uncertain behavior of brain, unspecified
D43.3	Neoplasm of uncertain behavior of cranial nerves
D43.4	Neoplasm of uncertain behavior of spinal cord
D43.8	Neoplasm of uncertain behavior of other specified parts of central nervous system
D44.3	Neoplasm of uncertain behavior of pituitary gland
D44.4	Neoplasm of uncertain behavior of craniopharyngeal duct
D44.5	Neoplasm of uncertain behavior of pineal gland
D44.6	Neoplasm of uncertain behavior of carotid body
D44.7	Neoplasm of uncertain behavior of aortic body and other paraganglia
D49.6	Neoplasm of unspecified behavior of brain
G06.1	Intraspinal abscess and granuloma
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
G45.0	Vertebro-basilar artery syndrome
G45.1	Carotid artery syndrome (hemispheric)
G45.2	Multiple and bilateral precerebral artery syndromes
G45.8	Other transient cerebral ischemic attacks and related syndromes
G45.9	Transient cerebral ischemic attack, unspecified
G46.0	Middle cerebral artery syndrome
G46.1	Anterior cerebral artery syndrome
G46.2	Posterior cerebral artery syndrome
G50.0	Trigeminal neuralgia
G50.1	Atypical facial pain
G52.9	Cranial nerve disorder, unspecified
G53	Cranial nerve disorders in diseases classified elsewhere
G54.0	Brachial plexus disorders
G54.1	Lumbosacral plexus disorders
G54.2	Cervical root disorders, not elsewhere classified
G54.3	Thoracic root disorders, not elsewhere classified
G54.4	Lumbosacral root disorders, not elsewhere classified
G56.11	Other lesions of median nerve, right upper limb
G56.12	Other lesions of median nerve, left upper limb
G56.13	Other lesions of median nerve, bilateral upper limbs

G56.21	Lesion of ulnar nerve, right upper limb
G56.22	Lesion of ulnar nerve, left upper limb
G56.23	Lesion of ulnar nerve, bilateral upper limbs
G56.31	Lesion of radial nerve, right upper limb
G56.32	Lesion of radial nerve, left upper limb
G56.33	Lesion of radial nerve, bilateral upper limbs
G57.01	Lesion of sciatic nerve, right lower limb
G57.02	Lesion of sciatic nerve, left lower limb
G57.03	Lesion of sciatic nerve, bilateral lower limbs
G80.4	Ataxic cerebral palsy
G80.8	Other cerebral palsy
G80.9	Cerebral palsy, unspecified
G93.5	Compression of brain
G95.0	Syringomyelia and syringobulbia
H71.01	Cholesteatoma of attic, right ear
H71.02	Cholesteatoma of attic, left ear
H71.03	Cholesteatoma of attic, bilateral
H71.11	Cholesteatoma of tympanum, right ear
H71.12	Cholesteatoma of tympanum, left ear
H71.13	Cholesteatoma of tympanum, bilateral
H71.21	Cholesteatoma of mastoid, right ear
H71.22	Cholesteatoma of mastoid, left ear
H71.23	Cholesteatoma of mastoid, bilateral
H71.31	Diffuse cholesteatosis, right ear
H71.32	Diffuse cholesteatosis, left ear
H71.33	Diffuse cholesteatosis, bilateral
H71.91	Unspecified cholesteatoma, right ear
H71.92	Unspecified cholesteatoma, left ear
H71.93	Unspecified cholesteatoma, bilateral
H74.41	Polyp of right middle ear
H74.42	Polyp of left middle ear
H74.43	Polyp of middle ear, bilateral
H83.11	Labyrinthine fistula, right ear
H83.12	Labyrinthine fistula, left ear
H83.13	Labyrinthine fistula, bilateral
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery

I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries
I60.8	Other nontraumatic subarachnoid hemorrhage
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified
I61.3	Nontraumatic intracerebral hemorrhage in brain stem
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized
I61.8	Other nontraumatic intracerebral hemorrhage
I61.9	Nontraumatic intracerebral hemorrhage, unspecified
I62.00	Nontraumatic subdural hemorrhage, unspecified
I62.01	Nontraumatic acute subdural hemorrhage
I62.02	Nontraumatic subacute subdural hemorrhage
I62.03	Nontraumatic chronic subdural hemorrhage
I62.1	Nontraumatic extradural hemorrhage
I62.9	Nontraumatic intracranial hemorrhage, unspecified
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery
I63.011	Cerebral infarction due to thrombosis of right vertebral artery
I63.012	Cerebral infarction due to thrombosis of left vertebral artery
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries
I63.02	Cerebral infarction due to thrombosis of basilar artery
I63.031	Cerebral infarction due to thrombosis of right carotid artery
I63.032	Cerebral infarction due to thrombosis of left carotid artery
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries
I63.09	Cerebral infarction due to thrombosis of other precerebral artery
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery
I63.111	Cerebral infarction due to embolism of right vertebral artery
I63.112	Cerebral infarction due to embolism of left vertebral artery
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries
I63.12	Cerebral infarction due to embolism of basilar artery
I63.131	Cerebral infarction due to embolism of right carotid artery
I63.132	Cerebral infarction due to embolism of left carotid artery
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
I63.19	Cerebral infarction due to embolism of other precerebral artery
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries

I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery
I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries
I63.39	Cerebral infarction due to thrombosis of other cerebral artery
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery
I63.411	Cerebral infarction due to embolism of right middle cerebral artery
I63.412	Cerebral infarction due to embolism of left middle cerebral artery
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries
I63.441	Cerebral infarction due to embolism of right cerebellar artery
I63.442	Cerebral infarction due to embolism of left cerebellar artery
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery
I63.49	Cerebral infarction due to embolism of other cerebral artery
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery

I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
I63.81	Other cerebral infarction due to occlusion or stenosis of small artery
I63.89	Other cerebral infarction
I63.9	Cerebral infarction, unspecified
I65.01	Occlusion and stenosis of right vertebral artery
I65.02	Occlusion and stenosis of left vertebral artery
I65.03	Occlusion and stenosis of bilateral vertebral arteries
I65.1	Occlusion and stenosis of basilar artery
I65.21	Occlusion and stenosis of right carotid artery
I65.22	Occlusion and stenosis of left carotid artery
I65.23	Occlusion and stenosis of bilateral carotid arteries
I65.8	Occlusion and stenosis of other precerebral arteries
I66.01	Occlusion and stenosis of right middle cerebral artery
I66.02	Occlusion and stenosis of left middle cerebral artery
I66.03	Occlusion and stenosis of bilateral middle cerebral arteries
I66.11	Occlusion and stenosis of right anterior cerebral artery
I66.12	Occlusion and stenosis of left anterior cerebral artery
I66.13	Occlusion and stenosis of bilateral anterior cerebral arteries
I66.21	Occlusion and stenosis of right posterior cerebral artery
I66.22	Occlusion and stenosis of left posterior cerebral artery
I66.23	Occlusion and stenosis of bilateral posterior cerebral arteries
I66.3	Occlusion and stenosis of cerebellar arteries
I66.8	Occlusion and stenosis of other cerebral arteries
I66.9	Occlusion and stenosis of unspecified cerebral artery
I67.0	Dissection of cerebral arteries, nonruptured
I67.1	Cerebral aneurysm, nonruptured
I67.5	Moyamoya disease
I67.841	Reversible cerebrovascular vasoconstriction syndrome
I67.848	Other cerebrovascular vasospasm and vasoconstriction
I71.010	Dissection of ascending aorta
I71.011	Dissection of aortic arch
I71.012	Dissection of descending thoracic aorta
I71.019	Dissection of thoracic aorta, unspecified
I71.02	Dissection of abdominal aorta
I71.03	Dissection of thoracoabdominal aorta
I71.10	Thoracic aortic aneurysm, ruptured, unspecified
I71.11	Aneurysm of the ascending aorta, ruptured
I71.12	Aneurysm of the aortic arch, ruptured
I71.13	Aneurysm of the descending thoracic aorta, ruptured

I71.20	Thoracic aortic aneurysm, without rupture, unspecified
I71.21	Aneurysm of the ascending aorta, without rupture
I71.22	Aneurysm of the aortic arch, without rupture
I71.23	Aneurysm of the descending thoracic aorta, without rupture
I71.30	Abdominal aortic aneurysm, ruptured, unspecified
I71.31	Pararenal abdominal aortic aneurysm, ruptured
I71.32	Juxtarenal abdominal aortic aneurysm, ruptured
I71.33	Infrarenal abdominal aortic aneurysm, ruptured
I71.40	Abdominal aortic aneurysm, without rupture, unspecified
I71.41	Pararenal abdominal aortic aneurysm, without rupture
I71.42	Juxtarenal abdominal aortic aneurysm, without rupture
I71.43	Infrarenal abdominal aortic aneurysm, without rupture
I71.50	Thoracoabdominal aortic aneurysm, ruptured, unspecified
I71.51	Supraceliac aneurysm of the thoracoabdominal aorta, ruptured
I71.52	Paravisceral aneurysm of the thoracoabdominal aorta, ruptured
I71.60	Thoracoabdominal aortic aneurysm, without rupture, unspecified
I71.61	Supraceliac aneurysm of the thoracoabdominal aorta, without rupture
I71.62	Paravisceral aneurysm of the thoracoabdominal aorta, without rupture
I77.71	Dissection of carotid artery
I77.74	Dissection of vertebral artery
I77.79	Dissection of other specified artery
I79.0	Aneurysm of aorta in diseases classified elsewhere
M40.03	Postural kyphosis, cervicothoracic region
M40.04	Postural kyphosis, thoracic region
M40.05	Postural kyphosis, thoracolumbar region
M40.12	Other secondary kyphosis, cervical region
M40.13	Other secondary kyphosis, cervicothoracic region
M40.14	Other secondary kyphosis, thoracic region
M40.15	Other secondary kyphosis, thoracolumbar region
M40.202	Unspecified kyphosis, cervical region
M40.203	Unspecified kyphosis, cervicothoracic region
M40.204	Unspecified kyphosis, thoracic region
M40.205	Unspecified kyphosis, thoracolumbar region
M40.292	Other kyphosis, cervical region
M40.293	Other kyphosis, cervicothoracic region
M40.294	Other kyphosis, thoracic region
M40.295	Other kyphosis, thoracolumbar region
M40.35	Flatback syndrome, thoracolumbar region
M40.36	Flatback syndrome, lumbar region
M40.37	Flatback syndrome, lumbosacral region
M40.45	Postural lordosis, thoracolumbar region
M40.46	Postural lordosis, lumbar region
M40.47	Postural lordosis, lumbosacral region
M40.55	Lordosis, unspecified, thoracolumbar region
M40.56	Lordosis, unspecified, lumbar region
M40.57	Lordosis, unspecified, lumbosacral region
M41.02	Infantile idiopathic scoliosis, cervical region
M41.03	Infantile idiopathic scoliosis, cervicothoracic region
M41.04	Infantile idiopathic scoliosis, thoracic region
M41.05	Infantile idiopathic scoliosis, thoracolumbar region
M41.06	Infantile idiopathic scoliosis, lumbar region

M41.07	Infantile idiopathic scoliosis, lumbosacral region
M41.08	Infantile idiopathic scoliosis, sacral and sacrococcygeal region
M41.112	Juvenile idiopathic scoliosis, cervical region
M41.113	Juvenile idiopathic scoliosis, cervicothoracic region
M41.114	Juvenile idiopathic scoliosis, thoracic region
M41.115	Juvenile idiopathic scoliosis, thoracolumbar region
M41.116	Juvenile idiopathic scoliosis, lumbar region
M41.117	Juvenile idiopathic scoliosis, lumbosacral region
M41.122	Adolescent idiopathic scoliosis, cervical region
M41.123	Adolescent idiopathic scoliosis, cervicothoracic region
M41.124	Adolescent idiopathic scoliosis, thoracic region
M41.125	Adolescent idiopathic scoliosis, thoracolumbar region
M41.126	Adolescent idiopathic scoliosis, lumbar region
M41.127	Adolescent idiopathic scoliosis, lumbosacral region
M41.22	Other idiopathic scoliosis, cervical region
M41.23	Other idiopathic scoliosis, cervicothoracic region
M41.24	Other idiopathic scoliosis, thoracic region
M41.25	Other idiopathic scoliosis, thoracolumbar region
M41.26	Other idiopathic scoliosis, lumbar region
M41.27	Other idiopathic scoliosis, lumbosacral region
M41.34	Thoracogenic scoliosis, thoracic region
M41.35	Thoracogenic scoliosis, thoracolumbar region
M41.41	Neuromuscular scoliosis, occipito-atlanto-axial region
M41.42	Neuromuscular scoliosis, cervical region
M41.43	Neuromuscular scoliosis, cervicothoracic region
M41.44	Neuromuscular scoliosis, thoracic region
M41.45	Neuromuscular scoliosis, thoracolumbar region
M41.46	Neuromuscular scoliosis, lumbar region
M41.47	Neuromuscular scoliosis, lumbosacral region
M41.52	Other secondary scoliosis, cervical region
M41.53	Other secondary scoliosis, cervicothoracic region
M41.54	Other secondary scoliosis, thoracic region
M41.55	Other secondary scoliosis, thoracolumbar region
M41.56	Other secondary scoliosis, lumbar region
M41.57	Other secondary scoliosis, lumbosacral region
M41.82	Other forms of scoliosis, cervical region
M41.83	Other forms of scoliosis, cervicothoracic region
M41.84	Other forms of scoliosis, thoracic region
M41.85	Other forms of scoliosis, thoracolumbar region
M41.86	Other forms of scoliosis, lumbar region
M41.87	Other forms of scoliosis, lumbosacral region
M43.8X1	Other specified deforming dorsopathies, occipito-atlanto-axial region
M43.8X2	Other specified deforming dorsopathies, cervical region
M43.8X3	Other specified deforming dorsopathies, cervicothoracic region
M43.8X4	Other specified deforming dorsopathies, thoracic region
M43.8X5	Other specified deforming dorsopathies, thoracolumbar region
M43.8X6	Other specified deforming dorsopathies, lumbar region
M43.8X7	Other specified deforming dorsopathies, lumbosacral region
M43.8X8	Other specified deforming dorsopathies, sacral and sacrococcygeal region

M47.011	Anterior spinal artery compression syndromes, occipito-atlanto-axial region
M47.012	Anterior spinal artery compression syndromes, cervical region
M47.013	Anterior spinal artery compression syndromes, cervicothoracic region
M47.014	Anterior spinal artery compression syndromes, thoracic region
M47.015	Anterior spinal artery compression syndromes, thoracolumbar region
M47.016	Anterior spinal artery compression syndromes, lumbar region
M47.021	Vertebral artery compression syndromes, occipito-atlanto-axial region
M47.022	Vertebral artery compression syndromes, cervical region
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region
M47.12	Other spondylosis with myelopathy, cervical region
M47.13	Other spondylosis with myelopathy, cervicothoracic region
M47.14	Other spondylosis with myelopathy, thoracic region
M47.15	Other spondylosis with myelopathy, thoracolumbar region
M47.16	Other spondylosis with myelopathy, lumbar region
M50.01	Cervical disc disorder with myelopathy, high cervical region
M50.020	Cervical disc disorder with myelopathy, mid-cervical region, unspecified level
M50.021	Cervical disc disorder at C4-C5 level with myelopathy
M50.022	Cervical disc disorder at C5-C6 level with myelopathy
M50.023	Cervical disc disorder at C6-C7 level with myelopathy
M50.03	Cervical disc disorder with myelopathy, cervicothoracic region
M51.04	Intervertebral disc disorders with myelopathy, thoracic region
M51.05	Intervertebral disc disorders with myelopathy, thoracolumbar region
M51.06	Intervertebral disc disorders with myelopathy, lumbar region
M51.9	Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc disorder
M96.2	Postradiation kyphosis
M96.3	Postlaminectomy kyphosis
M96.4	Postsurgical lordosis
M96.5	Postradiation scoliosis
P11.3	Birth injury to facial nerve
P11.4	Birth injury to other cranial nerves
P11.5	Birth injury to spine and spinal cord
P14.0	Erb's paralysis due to birth injury
P14.1	Klumpke's paralysis due to birth injury
P14.2	Phrenic nerve paralysis due to birth injury
P14.3	Other brachial plexus birth injuries
P14.8	Birth injuries to other parts of peripheral nervous system
Q05.0	Cervical spina bifida with hydrocephalus
Q05.1	Thoracic spina bifida with hydrocephalus
Q05.2	Lumbar spina bifida with hydrocephalus
Q05.3	Sacral spina bifida with hydrocephalus
Q05.5	Cervical spina bifida without hydrocephalus
Q05.6	Thoracic spina bifida without hydrocephalus
Q05.7	Lumbar spina bifida without hydrocephalus
Q05.8	Sacral spina bifida without hydrocephalus
Q07.00	Arnold-Chiari syndrome without spina bifida or hydrocephalus
Q07.01	Arnold-Chiari syndrome with spina bifida
Q07.02	Arnold-Chiari syndrome with hydrocephalus
Q07.03	Arnold-Chiari syndrome with spina bifida and hydrocephalus

Q27.9	Congenital malformation of peripheral vascular system, unspecified
Q28.2	Arteriovenous malformation of cerebral vessels
Q28.3	Other malformations of cerebral vessels
Q85.00	Neurofibromatosis, unspecified
Q85.01	Neurofibromatosis, type 1
Q85.02	Neurofibromatosis, type 2
Q85.03	Schwannomatosis
Q85.09	Other neurofibromatosis

Coverage for this group of codes includes any of the 7th digits that apply to these codes; A, B, D, G, K, P, or S.

M48.41XA	Fatigue fracture of vertebra, occipito-atlanto-axial region, initial encounter for fracture
M48.42XA	Fatigue fracture of vertebra, cervical region, initial encounter for fracture
M48.43XA	Fatigue fracture of vertebra, cervicothoracic region, initial encounter for fracture
M48.44XA	Fatigue fracture of vertebra, thoracic region, initial encounter for fracture
M48.45XA	Fatigue fracture of vertebra, thoracolumbar region, initial encounter for fracture
M48.46XA	Fatigue fracture of vertebra, lumbar region, initial encounter for fracture
M48.47XA	Fatigue fracture of vertebra, lumbosacral region, initial encounter for fracture
M48.48XA	Fatigue fracture of vertebra, sacral and sacrococcygeal region, initial encounter for fracture
M48.51XA	Collapsed vertebra, not elsewhere classified, occipito-atlanto-axial region, initial encounter for fracture
M48.52XA	Collapsed vertebra, not elsewhere classified, cervical region, initial encounter for fracture
M48.53XA	Collapsed vertebra, not elsewhere classified, cervicothoracic region, initial encounter for fracture
M48.54XA	Collapsed vertebra, not elsewhere classified, thoracic region, initial encounter for fracture
M48.55XA	Collapsed vertebra, not elsewhere classified, thoracolumbar region, initial encounter for fracture
M48.56XA	Collapsed vertebra, not elsewhere classified, lumbar region, initial encounter for fracture
M48.57XA	Collapsed vertebra, not elsewhere classified, lumbosacral region, initial encounter for fracture
M48.58XA	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, initial encounter for fracture
M80.08XA	Age-related osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture
M80.0B1A	Age-related osteoporosis with current pathological fracture, right pelvis, initial encounter for fracture
M80.0B1D	Age-related osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with routine healing
M80.0B1G	Age-related osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with delayed healing
M80.0B1K	Age-related osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with nonunion

M80.0B1P	Age-related osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with malunion
M80.0B1S	Age-related osteoporosis with current pathological fracture, right pelvis, sequela
M80.0B2A	Age-related osteoporosis with current pathological fracture, left pelvis, initial encounter for fracture
M80.0B2D	Age-related osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with routine healing
M80.0B2G	Age-related osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with delayed healing
M80.0B2K	Age-related osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with nonunion
M80.0B2P	Age-related osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with malunion
M80.0B2S	Age-related osteoporosis with current pathological fracture, left pelvis, sequela
M80.0B9A	Age-related osteoporosis with current pathological fracture, unspecified pelvis, initial encounter for fracture
M80.0B9D	Age-related osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with routine healing
M80.0B9G	Age-related osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with delayed healing
M80.0B9K	Age-related osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with nonunion
M80.0B9P	Age-related osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with malunion
M80.0B9S	Age-related osteoporosis with current pathological fracture, unspecified pelvis, sequela
M80.88XA	Other osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture
M80.8B1A	Other osteoporosis with current pathological fracture, right pelvis, initial encounter for fracture
M80.8B1D	Other osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with routine healing
M80.8B1G	Other osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with delayed healing
M80.8B1K	Other osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with nonunion
M80.8B1P	Other osteoporosis with current pathological fracture, right pelvis, subsequent encounter for fracture with malunion
M80.8B1S	Other osteoporosis with current pathological fracture, right pelvis, sequela
M80.8B2A	Other osteoporosis with current pathological fracture, left pelvis, initial encounter for fracture
M80.8B2D	Other osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with routine healing
M80.8B2G	Other osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with delayed healing
M80.8B2K	Other osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with nonunion
M80.8B2P	Other osteoporosis with current pathological fracture, left pelvis, subsequent encounter for fracture with malunion

M80.8B2S	Other osteoporosis with current pathological fracture, left pelvis, sequela
M80.8B9A	Other osteoporosis with current pathological fracture, unspecified pelvis, initial encounter for fracture
M80.8B9D	Other osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with routine healing
M80.8B9G	Other osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with delayed healing
M80.8B9K	Other osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with nonunion
M80.8B9P	Other osteoporosis with current pathological fracture, unspecified pelvis, subsequent encounter for fracture with malunion
M80.8B9S	Other osteoporosis with current pathological fracture, unspecified pelvis, sequela
M84.58XA	Pathological fracture in neoplastic disease, other specified site, initial encounter for fracture
M84.68XA	Pathological fracture in other disease, other site, initial encounter for fracture
S12.000A	Unspecified displaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.001A	Unspecified nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.01XA	Stable burst fracture of first cervical vertebra, initial encounter for closed fracture
S12.02XA	Unstable burst fracture of first cervical vertebra, initial encounter for closed fracture
S12.030A	Displaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture
S12.031A	Nondisplaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture
S12.040A	Displaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture
S12.041A	Nondisplaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture
S12.090A	Other displaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.091A	Other nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture
S12.100A	Unspecified displaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.101A	Unspecified nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.110A	Anterior displaced Type II dens fracture, initial encounter for closed fracture
S12.111A	Posterior displaced Type II dens fracture, initial encounter for closed fracture
S12.112A	Nondisplaced Type II dens fracture, initial encounter for closed fracture
S12.120A	Other displaced dens fracture, initial encounter for closed fracture
S12.121A	Other nondisplaced dens fracture, initial encounter for closed fracture
S12.130A	Unspecified traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture

S12.131A	Unspecified traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.14XA	Type III traumatic spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.150A	Other traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.151A	Other traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture
S12.190A	Other displaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.191A	Other nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture
S12.200A	Unspecified displaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.201A	Unspecified nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.230A	Unspecified traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.231A	Unspecified traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.24XA	Type III traumatic spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.250A	Other traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.251A	Other traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture
S12.290A	Other displaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.291A	Other nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture
S12.300A	Unspecified displaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.301A	Unspecified nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.330A	Unspecified traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.331A	Unspecified traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.34XA	Type III traumatic spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.350A	Other traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.351A	Other traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture
S12.390A	Other displaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.391A	Other nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture
S12.400A	Unspecified displaced fracture of fifth cervical vertebra, initial encounter for closed fracture

S12.401A	Unspecified nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.430A	Unspecified traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.431A	Unspecified traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.44XA	Type III traumatic spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.450A	Other traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.451A	Other traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture
S12.490A	Other displaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.491A	Other nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture
S12.500A	Unspecified displaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.501A	Unspecified nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.530A	Unspecified traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.531A	Unspecified traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.54XA	Type III traumatic spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.550A	Other traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.551A	Other traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture
S12.590A	Other displaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.591A	Other nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture
S12.600A	Unspecified displaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S12.601A	Unspecified nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S12.630A	Unspecified traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.631A	Unspecified traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.64XA	Type III traumatic spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.650A	Other traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.651A	Other traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture
S12.690A	Other displaced fracture of seventh cervical vertebra, initial encounter for closed fracture

S12.691A	Other nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture
S14.2XXA	Injury of nerve root of cervical spine, initial encounter
S14.3XXA	Injury of brachial plexus, initial encounter
S22.010A	Wedge compression fracture of first thoracic vertebra, initial encounter for closed fracture
S22.011A	Stable burst fracture of first thoracic vertebra, initial encounter for closed fracture
S22.012A	Unstable burst fracture of first thoracic vertebra, initial encounter for closed fracture
S22.018A	Other fracture of first thoracic vertebra, initial encounter for closed fracture
S22.019A	Unspecified fracture of first thoracic vertebra, initial encounter for closed fracture
S22.020A	Wedge compression fracture of second thoracic vertebra, initial encounter for closed fracture
S22.021A	Stable burst fracture of second thoracic vertebra, initial encounter for closed fracture
S22.022A	Unstable burst fracture of second thoracic vertebra, initial encounter for closed fracture
S22.028A	Other fracture of second thoracic vertebra, initial encounter for closed fracture
S22.029A	Unspecified fracture of second thoracic vertebra, initial encounter for closed fracture
S22.030A	Wedge compression fracture of third thoracic vertebra, initial encounter for closed fracture
S22.031A	Stable burst fracture of third thoracic vertebra, initial encounter for closed fracture
S22.032A	Unstable burst fracture of third thoracic vertebra, initial encounter for closed fracture
S22.038A	Other fracture of third thoracic vertebra, initial encounter for closed fracture
S22.039A	Unspecified fracture of third thoracic vertebra, initial encounter for closed fracture
S22.040A	Wedge compression fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.041A	Stable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.042A	Unstable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.048A	Other fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.049A	Unspecified fracture of fourth thoracic vertebra, initial encounter for closed fracture
S22.050A	Wedge compression fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.051A	Stable burst fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.052A	Unstable burst fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.058A	Other fracture of T5-T6 vertebra, initial encounter for closed fracture

S22.059A	Unspecified fracture of T5-T6 vertebra, initial encounter for closed fracture
S22.060A	Wedge compression fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.061A	Stable burst fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.062A	Unstable burst fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.068A	Other fracture of T7-T8 thoracic vertebra, initial encounter for closed fracture
S22.069A	Unspecified fracture of T7-T8 vertebra, initial encounter for closed fracture
S22.070A	Wedge compression fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.071A	Stable burst fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.072A	Unstable burst fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.078A	Other fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.079A	Unspecified fracture of T9-T10 vertebra, initial encounter for closed fracture
S22.080A	Wedge compression fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.081A	Stable burst fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.082A	Unstable burst fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.088A	Other fracture of T11-T12 vertebra, initial encounter for closed fracture
S22.089A	Unspecified fracture of T11-T12 vertebra, initial encounter for closed fracture
S24.2XXA	Injury of nerve root of thoracic spine, initial encounter
S32.010A	Wedge compression fracture of first lumbar vertebra, initial encounter for closed fracture
S32.011A	Stable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.012A	Unstable burst fracture of first lumbar vertebra, initial encounter for closed fracture
S32.018A	Other fracture of first lumbar vertebra, initial encounter for closed fracture
S32.019A	Unspecified fracture of first lumbar vertebra, initial encounter for closed fracture
S32.020A	Wedge compression fracture of second lumbar vertebra, initial encounter for closed fracture
S32.021A	Stable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.022A	Unstable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.028A	Other fracture of second lumbar vertebra, initial encounter for closed fracture
S32.029A	Unspecified fracture of second lumbar vertebra, initial encounter for closed fracture

S32.030A	Wedge compression fracture of third lumbar vertebra, initial encounter for closed fracture
S32.031A	Stable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.032A	Unstable burst fracture of third lumbar vertebra, initial encounter f or closed fracture
S32.038A	Other fracture of third lumbar vertebra, initial encounter for closed fracture
S32.039A	Unspecified fracture of third lumbar vertebra, initial encounter for closed fracture
S32.040A	Wedge compression fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.041A	Stable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.042A	Unstable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.048A	Other fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.049A	Unspecified fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.050A	Wedge compression fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.051A	Stable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.052A	Unstable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.058A	Other fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.059A	Unspecified fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.10XA	Unspecified fracture of sacrum, initial encounter for closed fracture
S32.110A	Nondisplaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.111A	Minimally displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.112A	Severely displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.119A	Unspecified Zone I fracture of sacrum, initial encounter for closed fracture
S32.120A	Nondisplaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.121A	Minimally displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.122A	Severely displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.129A	Unspecified Zone II fracture of sacrum, initial encounter for closed fracture
S32.130A	Nondisplaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.131A	Minimally displaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.132A	Severely displaced Zone III fracture of sacrum, initial encounter for closed fracture

S32.139A	Unspecified Zone III fracture of sacrum, initial encounter for closed fracture
S32.14XA	Type 1 fracture of sacrum, initial encounter for closed fracture
S32.15XA	Type 2 fracture of sacrum, initial encounter for closed fracture
S32.16XA	Type 3 fracture of sacrum, initial encounter for closed fracture
S32.17XA	Type 4 fracture of sacrum, initial encounter for closed fracture
S32.19XA	Other fracture of sacrum, initial encounter for closed fracture
S32.2XXA	Fracture of coccyx, initial encounter for closed fracture
S34.21XA	Injury of nerve root of lumbar spine, initial encounter
S34.22XA	Injury of nerve root of sacral spine, initial encounter
S34.4XXA	Injury of lumbosacral plexus, initial encounter

VII. MEDICAL NECESSITY REVIEW

Prior authorization for certain drugs, devices, services and procedures may or may not be required. In cases where prior authorization is required, providers will submit a request demonstrating that a drug, service or procedure is medically necessary. For more information, refer to the Priority Health Provider Manual.

See also the following section of the Priority Health Provider Manual:

> Procedures & services > Medical & surgical services > Intraoperative neurophysiological monitoring

Individual case review may allow coverage for care or treatment that is investigational yet promising for the conditions described. Requests for individual consideration require prior plan approval. All determinations of coverage for experimental, investigational, or unproven treatment will be made by a Priority Health medical director or clinical pharmacist. The exclusion of coverage for experimental, investigational, or unproven treatment may be reviewed for exception if the condition is either a terminal illness, or a chronic, life threatening, severely disabling disease that is causing serious clinical deterioration.

VIII. APPLICATION TO PRODUCTS

Coverage is subject to the member's specific benefits. Group-specific policy will supersede this policy when applicable.

- **HMO/EPO**: This policy applies to insured HMO/EPO plans.
- **POS**: This policy applies to insured POS plans.
- **PPO**: This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.
- **ASO**: For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.
- **INDIVIDUAL**: For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.
- **MEDICARE**: Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.
- **MEDICAID/HEALTHY MICHIGAN PLAN**: For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule. If there is a discrepancy between this policy and the Michigan

Medicaid Provider Manual, the Michigan Medicaid Provider Manual will govern. If there is a discrepancy or lack of guidance in the Michigan Medicaid Provider Manual, the Priority Health contract with Michigan Medicaid will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.

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