

Clinical Policy: Nerve Blocks for Pain Management

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[Coding Implications](#)

[Revision Log](#)

Description

Nerve blocks are the temporary interruption of conduction of impulses in peripheral nerves or nerve trunks created by the injection of local anesthetic solutions. They can be used to identify the source of pain or to treat pain.

Policy/Criteria

It is the policy of Pennsylvania Health and Wellness[®] that invasive pain management procedures performed by a physician are **medically necessary** when *the relevant criteria are met and the patient receives only one procedure per visit, with or without radiographic guidance.*

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I. Occipital Nerve Block

A. *An initial injection* of a local anesthetic for the diagnosis of suspected occipital neuralgia is **medically necessary** when all of the following are met:

1. Patient has unilateral or bilateral pain located in the distribution of the greater, lesser and/or third occipital nerves;
2. Pain has two of the following three characteristics:
 - a. Recurring in paroxysmal attacks lasting from a few seconds to minutes;
 - b. Severe intensity;
 - c. Shooting, stabbing, or sharp in quality;
3. Pain is associated with both of the following:
 - a. Dysesthesia and/or allodynia apparent during innocuous stimulation of the scalp and/or hair;
 - b. Tenderness over the affected nerve branches.

B. *Therapeutic occipital nerve blocks* are **medically necessary** when all of the following are met:

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1. There was temporary relief from the initial/previous injection;
2. The member has failed 3 months of conservative treatment including all of the following:
 - a. Heat, rest and/or physical therapy, including massage;
 - b. NSAID, unless contraindicated or not tolerated;
 - c. Oral anticonvulsant medications (e.g., carbamazepine, gabapentin, pregabalin) or tricyclic antidepressants;
 - d. Activity modification to address triggers
3. No more than 4 injections are to be given within 12 months (includes diagnostic injection).

C. *Occipital nerve block* for the diagnosis or treatment of other types of headaches, including migraine and cervicogenic headaches, is considered **not medically necessary**.

II. Sympathetic Nerve Blocks have **limited evidence** to prove effectiveness of treatment and consideration will be made on a case by case basis. The criteria below provide a basis for documenting patient-specific clinical information to help guide clinical decision making.

A. *First or second sympathetic nerve block:*

1. Diagnosis of *complex regional pain syndrome* (CRPS) (also called reflex sympathetic dystrophy) and all of the following:
 - a. Pain is being managed by a pain management specialist with experience treating CRPS;
 - b. The member is in an active rehabilitation regimen;
 - c. Failed ≥ 3 weeks of conservative therapies such as activity modification, exercises, topical capsaicin cream, and oral medical management such as nonsteroidal anti-inflammatories, antidepressants, anticonvulsants and glucocorticoids;
 - d. ≥ 2 of the following findings of the involved digit/extremity:
 - i. Hyperalgesia or allodynia (pain sensation in response to a typically non-painful stimulus);
 - ii. Evidence of edema and/or sweating changes and/or sweating asymmetry;
 - iii. Evidence of temperature asymmetry ($>1^{\circ}\text{C}$) and/or skin color changes and/or asymmetry;
 - iv. Evidence of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nail, skin)

B. *Additional sympathetic nerve blocks for CRPS* may be considered **medically necessary** when all of the following are met:

1. Nerve blocks are given at least a week apart;
2. There was an immediate positive response to the first or second nerve block (eg, improved temperature and decreased pain).

C. *Additional sympathetic nerve blocks* without documented benefit from the first or second are **not medically necessary**.

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- D. Sympathetic nerve blocks for any other indication, including ischemic limb pain, are **not medically necessary** as there is a lack of evidence to support effectiveness.

III. Celiac Plexus Nerve Block/Neurolysis

- A. *Celiac plexus nerve block/neurolysis* is **medically necessary** for chronic neuralgic pain secondary to pancreatic cancer when all of the following are met:
1. Diagnosis of pancreatic cancer with severe visceral abdominal/back pain;
 2. Strong analgesics such as opioids are no longer effective or their side effects decrease quality of life;
 3. No malignancy in an area of somatic innervation such as the peritoneum or diaphragm.
- B. *Repeat celiac plexus nerve blocks or neurolysis* are not medically necessary as there is a lack of evidence to support effectiveness.

IV. Intercostal Nerve Block/Neurolysis

- A. *Intercostal nerve block/neurolysis* is **medically necessary** for chronic neuralgic pain secondary to an injured intercostal nerve as a result of a rib fracture, a thoracotomy incision or chronic pain due to post herpetic neuralgia, or other neuropathic process when all of the following are met:
1. Suspected organic problem;
 2. Non-responsiveness to conservative modalities of treatment;
 3. Pain and disability of moderate to severe degree;
 4. No evidence of contraindications such as infection or pain of predominately psychogenic origin.

V. Genicular Nerve Blocks and Genicular Nerve Radiofrequency Neurotomy

Genicular nerve blocks and *radiofrequency neurotomy of the articular nerve* are considered **not medically necessary** because effectiveness has not been established. There is insufficient evidence to determine safety and effectiveness.

VI. Peripheral/Ganglion Nerve Blocks for the Treatment of Chronic Nonmalignant Pain

Peripheral/ganglion nerve blocks for any condition not indicated elsewhere in this policy are considered **experimental/investigational** as there is ongoing research but insufficient evidence to establish efficacy.

Background

Local Injections for Cervicogenic and Occipital Neuralgia

Greater occipital nerve blocks have been advocated as a diagnostic test for cervicogenic headache and occipital neuralgia. The effectiveness of greater occipital nerve block in patients with primary headache syndromes is controversial. The International Headache Society (IHS) defines occipital neuralgia as unilateral or bilateral paroxysmal, shooting or stabbing pain in the posterior part of the scalp, in the distribution of the greater, lesser or third occipital nerves, sometimes accompanied by diminished sensation or dysaesthesia in the affected area and commonly associated with tenderness over the involved nerve(s).¹ The IHS includes relief of pain following a local anesthetic block of the affected nerve as part of their diagnostic criteria for occipital neuralgia. Thus, the principal indication for occipital block is diagnosis. Another

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indication is the treatment of chronic occipital neuralgia, often with a series of therapeutic blocks combining local anesthetic and corticosteroid. Pain relief is typically prompt and may last several weeks or even months. At that time the injection may be repeated.

Sympathetic Nerve Blocks

Sympathetic nerves may be injected for several reasons:

- Diagnostic - to determine the source of pain, e.g., to identify or pinpoint a nerve that acts as a pathway for pain; to determine the type of nerve that conducts the pain; to distinguish between pain that is central (within the spinal cord) or peripheral (outside the spinal cord) in origin; or to determine whether a neurolytic block or surgical lysis of the nerve should be performed;
- Therapeutic - to treat painful conditions that respond to nerve blocks (e.g., celiac block for pain of pancreatic cancer); and
- Prognostic - to predict the outcome of long-lasting interventions (e.g., lumbar sympathectomy).

The response to sympathetic blockade is the best diagnostic test for CRPS. If the patient has had a technically successful sympathetic block and does not obtain significant relief, then the patient probably does not have CRPS. Over two thirds of patients will obtain significant relief with minimal effect on motor and sensory function because the sympathetic fibers are the least myelinated (as compared to motor and sensory nerve fibers) these fibers are the first to be affected by the local anesthetic.

A 2014 case report and literature review identified only five cases, and no Level I or II evidence-based trials to support the use of sympathetic nerve block for ischemic pain.¹⁶ The authors presented two cases of patients who experienced severe pain due to ischemia despite full regional nerve blocks.¹⁶ The available literature is not sufficient to support the use of sympathetic nerve blocks for ischemic limb pain.

Celiac Plexus Nerve Block/Neurolysis

Although its analgesic effectiveness is similar to analgesic drugs, celiac plexus neurolysis offers pain reduction without the significant adverse effects of opiates.² A multidisciplinary, international guideline issued a strong recommendation based on moderate quality evidence for celiac plexus neurolysis as a treatment for pain associated with advanced pancreatic cancer.² Furthermore, a 2011 Cochrane review stated that celiac plexus block (neurolysis) significantly reduced opiate use and lowered pain compared to the control group.³

The optimal timing of celiac plexus neurolysis for pain due to pancreatic cancer is not known.² Advocates of an earlier approach argue that pain is more effectively addressed by neurolysis when treated earlier, and opiate-related side effects may also be reduced compared to later treatment. However, the effects of celiac plexus neurolysis diminish over time, which would leave a patient with fewer options as the cancer progresses and pain becomes more severe. Repeat celiac plexus neurolysis is effective only about 30% of the time and is not recommended.^{2, 17}

Intercostal Nerve Blocks

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Intermittent intercostal nerve blocks can be used to control pain in the chest and upper abdomen, such as pain associated with rib fractures or chronic pain due to post herpetic neuralgia. Intercostal nerve blocks can be performed using anatomic landmarks or with ultrasound guidance, which can be used to minimize the chance of intravascular injection and pneumothorax and to increase reliable dermatomal coverage.^{4,8}

For isolated injuries, such as single rib fracture, nonsteroidal anti-inflammatory drugs with or without opioids would be the initial treatment. For more severe injuries, particularly if ventilation is compromised, intercostal nerve blocks may be needed. For patients with multiple rib fractures, there is a need to perform the procedure at multiple intercostal levels. Repeated blockade may be needed for prolonged relief upon return of pain and/or deterioration in functional status. For repeat blocks or other interventions, patient must have been responsive to prior interventions with improvement in physical and functional status.^{5,8}

Regional anesthesia plays an important role in thoracic surgery, particularly with regard to post-operative pain control. The first choice of regional anesthesia for thoracic surgery is epidural analgesia or thoracic paravertebral block. In general, the analgesic efficiencies of both these types of anesthesia are equivalent; however, thoracic paravertebral block has some advantages over epidural analgesia, including fewer complications. When these two blocks are contraindicated, intercostal nerve block or interpleural block should be considered.^{6,7}

Genicular Nerve Blocks and Radiofrequency Neurotomy

The genicular nerve is a sensory nerve that surrounds the knee and provides innervation for the joint. Genicular nerve blocks and radiofrequency neurotomy are emerging interventions for knee pain. The limited evidence regarding genicular nerve blocks for determining appropriateness of treatment with genicular radiofrequency ablation has reached conflicting results.^{9,10}

A few small studies suggest that genicular radiofrequency neurotomy may be effective for relief of pain, but further research is needed to establish safety and efficacy.¹¹⁻¹⁵

Coding Implications

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CPT® Codes	Description
64400	Injection, anesthetic agent; trigeminal nerve, any division or branch
64402	Injection, anesthetic agent; facial nerve
64405	Injection, anesthetic agent; greater occipital nerve
64408	Injection, anesthetic agent; vagus nerve
64410	Injection, anesthetic agent; phrenic nerve

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CPT® Codes	Description
64413	Injection, anesthetic agent; cervical plexus
64415	Injection, anesthetic agent; brachial plexus, single
64417	Injection, anesthetic agent; axillary nerve
64418	Injection, anesthetic agent; suprascapular nerve
64420	Injection, anesthetic agent; intercostal nerve, single
64421	Injection, anesthetic agent; intercostal nerves, multiple, regional block
64425	Injection, anesthetic agent; ilioinguinal, iliohypogastric nerves
64430	Injection, anesthetic agent; pudendal nerve
64435	Injection, anesthetic agent; paracervical (uterine) nerve
64445	Injection, anesthetic agent; sciatic nerve, single
64447	Injection, anesthetic agent; femoral nerve, single
64450	Injection, anesthetic agent; other peripheral nerve or branch
64505	Injection, anesthetic agent; sphenopalatine ganglion
64508	Injection, anesthetic agent; carotid sinus (separate procedure)
64510	Injection, anesthetic agent; stellate ganglion (cervical sympathetic)
64517	Injection, anesthetic agent; superior hypogastric plexus
64520	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)
64530	Injection, anesthetic agent; celiac plexus, with or without radiologic monitoring
64640	Destruction by neurolytic agent; other peripheral nerve or branch
64680	Destruction by neurolytic agent, with or without radiologic monitoring; celiac plexus

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
C25.0-C25.9	Malignant neoplasm of pancreas
G44.85	Primary stabbing headache
G50.0	Trigeminal neuralgia
G50.1	Atypical facial pain
G54.0-G54.9	Nerve root and plexus disorders
G56.40-G56.43	Causalgia of upper limb
G57.70-G57.73	Causalgia of lower limb
G89.22	Chronic post-thoracotomy pain
G89.4	Chronic pain syndrome
G90.50-G90.59	Complex regional pain syndrome I (CRPS I)
M54.81	Occipital neuralgia
R07.81-R07.89	Other chest pain
R10.10-R10.12	Pain localized to upper abdomen

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ICD-10-CM Code	Description
S22.41X+- S22.49X+	Multiple fractures of rib

Reviews, Revisions, and Approvals	Date	Approval Date
New policy split from retired CP.MP.118 Injections for Pain Management. No criteria changes.	09/18	

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