

Clinical Policy: Nerve Blocks and Neurolysis for Pain Management

Reference Number: PA.CP.MP.170

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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.

Note: For sacroiliac nerve block and radiofrequency neurotomy, please refer to PA.CP.MP.166 Sacroiliac Joint Interventions

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 anesthetics 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 dysaesthesia and/or allodynia apparent during innocuous stimulation of the scalp and/or hair, and at least one of the following:
 - a. Tenderness over the affected nerve branches;
 - b. Trigger point at the emergence of the greater occipital nerve or in the distribution of C2.

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- B.** *Therapeutic occipital nerve blocks* are **medically necessary** when all of the following are met:
1. There was temporary relief from the initial/previous injection;
 2. The participant/enrollee 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** as effectiveness has not been established.

Note: Please refer to PHW.PDL.236 Botulinum Toxins for requests for Botox injections for migraines

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 participant/enrollee 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. Two or more 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;

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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**.
- 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 either of the following indications:
 1. Chronic neuralgic pain secondary to pancreatic cancer, all of the following:
 - a. Diagnosis of pancreatic cancer with severe visceral abdominal/back pain;
 - b. Strong analgesics such as opioids are no longer effective or their side effects decrease quality of life;
 - c. No malignancy in an area of somatic innervation such as the peritoneum or diaphragm.
 2. Refractory pain due to chronic pancreatitis with non–dilated pancreatic duct.
- B. A repeat *celiac plexus nerve block* for refractory pain from chronic pancreatitis with non-dilated pancreatic duct is **medically necessary** when both of the following are met:
 1. At least three months have passed since previous injection;
 2. There was a clinical benefit from the initial celiac block.
- C. *Repeat celiac plexus nerve blocks or neurolysis*, for any indication other than those noted above, 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, Neurolysis and Genicular Nerve Radiofrequency Neurotomy

There is insufficient evidence to determine safety and effectiveness of *genicular nerve blocks, neurolysis and radiofrequency neurotomy of the articular nerve*.

VI. Peripheral/Ganglion Nerve Blocks

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Note: If administered as part of a surgery or other procedure, coding for peripheral/ganglion nerve blocks should follow proper coding practices and would not be subject to prior authorization or payment separately from the procedure.

- A. *Peripheral nerve blocks for diagnosis and treatment of malignant pain* are considered **medically necessary** as part of a comprehensive pain management program.
- B. *Peripheral nerve blocks for diagnosis or treatment of post-herniorrhaphy pain* are considered **medically necessary** when all of the following criteria are met:
 - 1. A first diagnostic peripheral nerve block when all of the following are met:
 - a. Diagnosis of post-herniorrhaphy neuralgia;
 - b. Groin pain has persisted for three months after surgical hernia repair;
 - c. Less invasive pain management methods such as NSAIDs and/or opiates have not relieved the pain;
 - d. Imaging studies have ruled out non-neuropathic causes of pain;
 - e. Documentation indicates that pain is not attributable to any other cause;
 - 2. Therapeutic peripheral nerve block(s) for treatment of post-herniorrhaphy pain when all of the following are met:
 - a. There was temporary relief from the initial/previous injection;
 - b. Injections are given at least a week apart.
- C. *Peripheral nerve blocks for prevention or treatment of headaches*, including, but not limited to: migraine headaches, treatment-refractory migraines in pregnancy, and short-lasting unilateral neuralgiform headaches, are considered **not medically necessary** as effectiveness has not been established.
- D. There is insufficient evidence in the published peer-reviewed literature to support the use of *peripheral nerve blocks for the treatment of trigeminal neuralgia*.
- E. There is insufficient evidence in the published peer-reviewed literature to support the use of *peripheral/ganglion nerve blocks or neurolysis* for any condition not indicated elsewhere in this policy, including chronic pain. There is ongoing research but insufficient evidence to establish efficacy.

VII. Intraosseous Radiofrequency Nerve Ablation of the Basivertebral Nerve

There is insufficient evidence to determine the safety and effectiveness of *intraosseous radiofrequency nerve ablation of the basivertebral nerve* (e.g. Intracept® Intraosseous Nerve Ablation System.) for the treatment of chronic low back pain.

Background

Local Injections for Cervicogenic Headache 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.²⁵ The International Headache Society (IHS) defines occipital neuralgia as unilateral or bilateral paroxysmal, shooting or stabbing pain in the

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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.¹ Thus, the principal indication for occipital block is diagnosis. Another 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.^{19,25}

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 (complex regional pain syndrome). 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) and 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 for Pancreatic Cancer

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

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leave a patient with fewer options as the cancer progresses and pain becomes more severe. Repeat celiac plexus neurolysis for pain due to pancreatic cancer is effective only about 30% of the time and is not recommended.^{2,17}

Celiac Plexus Nerve Block/Neurolysis for Chronic Pancreatitis

Celiac plexus blockade is an option for pain relief in patients with refractory pain due to chronic pancreatitis and a non-dilated pancreatic duct. Advantages of celiac plexus blockade include that a single treatment can potentially provide pain reduction or relief, may reduce or eliminate the need for oral analgesia, and can be performed quickly and repeated as needed. However, it is unclear which patients will derive the most benefit and the pain relief is transient, lasting for three to six months.²⁴

The American College of Gastroenterology suggests considering celiac plexus block for treatment of pain in chronic pancreatitis (conditional recommendation, very low quality of evidence) noting that celiac plexus blockade represents a relatively low-risk, opioid-free method to reduce refractory pain in certain patients with chronic pancreatitis.⁴¹

Intercostal Nerve Blocks

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, neurolysis 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.^{9,10,41} A few small studies suggest that genicular radiofrequency neurotomy

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may be effective for relief of pain, but further research is needed to establish safety and efficacy.
11-15

Peripheral/Ganglion Nerve Blocks.

Peripheral nerve blocks (PNB) are widely used for surgical anesthesia as well as for both postoperative and nonsurgical analgesia. Indications for PNBs are diverse and vary widely. Blocks are often used to avoid the effects of alternative anesthetics or analgesics. The most common rationale for their use is to avoid side effects and complications of general anesthesia, particularly respiratory-related effects, and to provide analgesia while minimizing opioid use.³⁷

Chronic pain can be treated with a number of pharmacologic and nonpharmacologic therapies which generally fall into six major categories: pharmacologic, physical medicine, behavioral medicine neuromodulation, interventional and surgical approaches.³³ Optimal outcomes result from multiple approaches.^{33,50} Interventional approaches, which typically attempt to target the presumed pain generators, may play a complementary role to other strategies (e.g., rehabilitation and appropriate pharmacotherapy.) The best candidates for interventional management have persistent focal pain of shorter duration, appropriate expectations, and well-managed psychosocial distress.³³

Cancer pain can be caused by complex interactions among cancer cells, the peripheral and central nervous systems, and the immune system. Peripheral pain receptors may become activated, sensitized or injured with certain cancers. Neuropathic pain may arise from nerve tissue damage and cancer patients may experience mild to severe pain. At least 15% will experience no relief or have severe adverse effects from interventions to address their pain. Nerve blocks or other interventional procedures may be appropriate as part of a comprehensive pain management program.^{34, 35}

Peripheral Nerve Blocks for Prevention or Treatment of Headaches

Peripheral nerve blocks have been proposed as a treatment for migraines in pregnancy and refractory migraines. However, evidence is limited to support this indication. In a series of 13 pregnant women with migraine refractory to medication, injection of local anesthetic into one or more peripherals nerve resulted in elimination of pain in seven women, pain reduction in two and no response in four women. Larger studies are necessary to better define the efficacy of this approach.³¹

Peripheral Nerve Blocks for Diagnosis and Treatment of Post-Herniorrhaphy Groin Pain

Persistent pain following inguinal hernia surgery is relatively common and a comprehensive pain management program is recommended. A prospective study, including elective primary open hernia repairs, found persistent pain occurred in 16.5 to 16.1 percent of patients at six months and five years.³⁶ Acute pain persisting more than eight weeks is most likely neuropathic due to primary or secondary nerve injuries. Post-herniorrhaphy neuralgia should be suspected if pain persists beyond six to eight weeks. These patients should undergo imaging to exclude nonneuropathic causes. Patients with positive response to initial nerve block can be treated every 1 to 3 weeks until pain relief is sustained. Those who have a positive response initially, but the pain returns, may require groin nerve sacrifice via percutaneous nerve ablation or surgical neurectomy.³⁶

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Peripheral Nerve Blocks for Prevention or Treatment of Trigeminal Neuralgia

Compression of the trigeminal nerve root is the main mechanism of trigeminal neuralgia, but brainstem lesions account for a small proportion of cases. Initial treatment of most patients with trigeminal neuralgia is pharmacologic therapy. For patients with TN refractory to medical therapy, it is reasonable to discuss options for surgical therapy (e.g., microvascular decompression, various types of rhizotomy, or gamma knife radiosurgery.) The decision to have surgery and the choice among surgical options will be influenced by individual circumstances including patient preference, adverse effect profile of the available techniques, and expertise of the local center.⁴² There is insufficient evidence in the published peer-reviewed literature to support the use of peripheral nerve blocks for the treatment of trigeminal neuralgia.⁵⁰

Intraosseous Radiofrequency Nerve Ablation of Basivertebral Nerve

Basivertebral nerve radiofrequency ablation has been developed for the treatment of chronic low back pain thought to originate from the vertebral body endplates.⁴³ The Intracept Intraosseous Nerve Ablation System, Relieva Medsystems, Inc. is approved by the FDA and intended to be used in conjunction with radiofrequency generators for the ablation of basivertebral nerves of the L3 through S1 vertebrae. Its purpose is to relieve chronic low back pain of at least six months duration that has not responded to at least six months of conservative care, and is also accompanied by features consistent with Type 1 or Type 2 Modic changes on an MRI [e.g., inflammation, edema, vertebral endplate changes, disruption and fissuring of the endplate, vascularized fibrous tissues within the adjacent marrow, hypointensive signals (Type 1 Modic change), and changes to the vertebral body marrow including replacement of normal bone marrow by fat, and hyperintensive signals (Type 2 Modic change)].⁴⁹

Studies to date report relief of pain and improvement in function and quality of life after treatment, however, most are company sponsored, limited in size and are of generally poor or fair quality. A review of full-text clinical practice guidelines and position statements offers weak support for the Intracept Intraosseous Nerve Ablation for chronic low back pain of suspected vertebrogenic origin. Long-term non-industry-funded prospective trials should be pursued to confirm the results of currently published clinical studies.⁴⁴

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

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CPT® Codes	Description
64400	Injection(s), anesthetic agent(s) and/or steroid; trigeminal nerve, each branch (ie, ophthalmic, maxillary, mandibular)
64405	Injection(s), anesthetic agent(s) and/or steroid; greater occipital nerve
64408	Injection(s), anesthetic agent(s) and/or steroid; vagus nerve
64415	Injection(s), anesthetic agent(s) and/or steroid; brachial plexus
64417	Injection(s), anesthetic agent(s) and/or steroid; axillary nerve
64418	Injection(s), anesthetic agent(s) and/or steroid; suprascapular nerve
64420	Injection(s), anesthetic agent(s) and/or steroid; intercostal nerve, single level
64421	Injection(s), anesthetic agent(s) and/or steroid; intercostal nerve, each additional level
64425	Injection(s), anesthetic agent(s) and/or steroid; ilioinguinal, iliohypogastric nerves
64430	Injection(s), anesthetic agent(s) and/or steroid; pudendal nerve
64435	Injection(s), anesthetic agent(s) and/or steroid; paracervical (uterine) nerve
64445	Injection(s), anesthetic agent(s) and/or steroid; sciatic nerve
64447	Injection(s), anesthetic agent(s); femoral nerve
64450	Injection(s), anesthetic agent(s) and/or steroid; other peripheral nerve or branch
64454	Injection(s), anesthetic agent(s) and/or steroid; genicular nerve branches, including imaging guidance, when performed
64505	Injection, anesthetic agent; sphenopalatine ganglion
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
64620	Destruction by neurolytic agent, intercostal nerve
64624	Destruction by neurolytic agent, genicular nerve branches including imaging guidance, when performed
64640	Destruction by neurolytic agent; other peripheral nerve or branch
64680	Destruction by neurolytic agent, with or without radiologic monitoring; celiac plexus
64999	Unlisted procedure, nervous system

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code requiring an additional character

C25.0 through C25.9	Malignant neoplasm of pancreas
G44.85	Primary stabbing headache
G50.1	Atypical facial pain
G54.0 through G54.9	Nerve root and plexus disorders
G56.40 through G56.43	Causalgia of upper limb
G57.70 through G57.73	Causalgia of lower limb
G89.22	Chronic post-thoracotomy pain

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G89.4	Chronic pain syndrome
G90.50 through G90.59	Complex regional pain syndrome I (CRPS I)
M54.81	Occipital neuralgia
K86.0	Alcohol-induced chronic pancreatitis
K86.1	Other chronic pancreatitis
R07.81 through R07.89	Other chest pain
R10.10 through R10.12	Pain localized to upper abdomen
S22.41X+ through S22.49X+	Multiple fractures of rib

Reviews, Revisions, and Approvals	Revision Date	Approval Date
New policy split from retired CP.MP.118 Injections for Pain Management. No criteria changes.	09/18	10/18
Annual review. Background and references reviewed and updated accordingly (added International Headache Society and Practice Guidelines for Chronic Pain Management). Specialty review completed. Removed CPT 64508 as code was inactive 1/1/2019. Added CPT 64620 for intercostal neurolysis. Specified that the following codes DO NOT support medical necessity: 64400, 64402, 64408, 64410, 64413, 64415, 64417, 64418, 64425, 64430, 64435, 64445, 64447, 64450, 64505. Removed CPT codes 64402, 64410, and 64413- codes deleted 1/1/20 and replaced with unlisted code, 64999 as directed per CPT manual. Revised description for the following CPT codes effective 1/20: 64400-64450. Added 2020 CPT codes 64454 and 64624. Combined all CPT codes into one table. Peripheral/Ganglion Nerve Blocks: Section A indication added for peripheral nerve blocks for malignant pain; section B.1. and 2. added indication for diagnosis or treatment of post-herniorrhaphy pain and therapeutic post-herniorrhaphy pain; section C added peripheral nerve blocks for prevention or treatment of headaches, including migraines, refractory migraines in pregnancy, and short-lasting unilateral neuralgiform headaches as not	6/2020	7/2020

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<p>medically necessary. Corrected V. on Genicular Nerve Blocks and Neurotomy to state that they are experimental vs not medically necessary.</p> <p>Added “neurolysis” as a not medically necessary procedure to section V. on genicular nerve block. Added note to reference policy, <i>PA.CP.MP.166 Sacroiliac Joint Interventions for sacroiliac nerve block and radiofrequency neurotomy</i></p>		
<p>For occipital nerve block, added “trigger point at the emergence of the greater occipital nerve or in the distribution of C2” as an alternative to tenderness at the affected nerve branch. Revised examples of less invasive pain medication in VI.B.c., “NSAIDs and opiates” to “NSAIDs and/or opiates.”</p> <p>Added reference to PHW.PDL.236 for requests for Botox for migraine.</p> <p>Replaced “member” with “participant/enrollee.”</p> <p>Added the following note to VI. Peripheral/ganglion nerve blocks: Peripheral/ganglion nerve blocks may be approved without prior authorization when used during another medically necessary procedure (i.e. as anesthesia during surgery). References reviewed and updated.</p>	6/2021	
<p>Annual review. Added refractory chronic pancreatitis as an indication for celiac plexus block to section III and updated background accordingly. Added ICD -10 codes K86.0 and K86.1 to support coverage criteria. Changed “Experimental/investigational” language in section V. and VI.E. to “insufficient evidence to support...”. Under section VI, moved “Note” for visibility. Added insufficient evidence to support peripheral nerve block for treatment of trigeminal neuralgia to VI.D, removed G50.0 from list of ICD 10 codes that support coverage criteria and updated background accordingly. References reviewed, reformatted and updated. Changed “review date” in the header to “date of last revision” and “date” in the revision log header to “revision date.” Edited note in section VI to state: If administered as part of a surgery or other procedure, coding for peripheral/ganglion nerve blocks should follow proper coding practices and would not be subject to prior authorization or payment separately from the procedure. Revised policy title from “Nerve Blocks for Pain Management” to “Nerve Blocks and Neurolysis for Pain Management.” Added VII. Insufficient evidence to determine the safety and effectiveness of intraosseous radiofrequency nerve ablation of basivertebral nerve. Updated background and references accordingly. Annual review</p>	12/15/2022	

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Reviews, Revisions, and Approvals	Revision Date	Approval Date
completed. Added “as effectiveness has not been established” to I. C. Background updated. Reworded some extraneous language with no clinical significance. References reviewed and updated.		

References

1. Headache Classification Committee of the International Headache Society (IHS). The International Classification of Headache Disorders, 3rd edition (beta version). *Cephalalgia*. 2018;38(1):1 to 211. doi:10.1177/0333102417738202
2. Drewes AM, Campbell CM, Ceyhan GO, et al. Pain in pancreatic ductal adenocarcinoma: A multidisciplinary, International guideline for optimized management. *Pancreatology*. 2018;18(4):446 to 457. doi: 10.1016/j.pan.2018.04.008
3. Arcidiacono PG, Calori G, Carrara S, McNicol ED, Testoni PA. Celiac plexus block for pancreatic cancer pain in adults. *Cochrane Database Syst Rev*.2011;2011(3):CD007519. Published 2011 Mar 16. doi: 10.1002/14651858.CD007519.pub2
4. Bashir MM, Shahzad MA, Yousaf MN, Khan BA, Khan FA. Comparison of postoperative pain relief by intercostal block between pre-rib harvest and post-rib harvest groups. *J College Physicians Surg Pak*. 2014;24(1):43 to 46.
5. Sarani B. Inpatient management of traumatic rib fractures. UpToDate. www.uptodate.com. Updated April 26, 2022. Accessed July 5, 2022.
6. Hwang EG, Lee Y. Effectiveness of intercostal nerve block for management of pain in rib fracture patients. *Exerc Rehabil*. 2014;10(4):241 to 24. doi10.12965/jer.I40137
7. Morimoto Y. (2019) Regional anesthesia for thoracic surgery. *Anesthesia Pain and Intensive Care*. 352 to 356. 2010-2013
8. Rice DC, Cata JP, Mena GE, Rodriguez-Restrepo A, Correa AM, Mehran RJ. Posterior intercostal nerve block with liposomal bupivacaine: an alternative to thoracic epidural analgesia. *Ann Thorac Surg*. 2015;99(6):1953 to 1960.
9. Health Technology Assessment: Genicular Nerve Block for the Management of Knee Pain. Hayes. www.hayesinc.com. Published June 24, 2020. (annual review May 23, 2022) Accessed July 8, 2022.
10. McCormick ZL, Reddy R, Korn M, et al. A prospective randomized trial of prognostic genicular nerve blocks to determine the predictive value for the outcome of cooled radiofrequency ablation for chronic knee pain due to osteoarthritis. *Pain Med*. 2018;19(8):1628 to 1638.

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11. Kesikburun S, YaSar E, Uran A, Adiguzel E, Yimaz B. Ultrasound-guided genicular nerve pulsed radiofrequency treatment for painful knee osteoarthritis: a preliminary report. *Pain Physician* 2016;19(5):E751 to E759.
12. Qudsi-Sinclair S, Borrás-Rubio E, Abellan-Guillén JF, Padilla Del Rey ML, Ruiz-Merino G. A comparison of genicular nerve treatment using either radiofrequency or analgesic block with corticosteroid for pain after a total knee arthroplasty: a double-blind, randomized clinical study. *Pain Pract.* 2017;17(5):578 to 588. doi:10.1111/papr.12481
13. Ahmed A, Arora D. Ultrasound-guided radiofrequency ablation of genicular nerves of knee for relief of intractable pain from knee osteoarthritis: a case series. *Br J Pain.* 2018;12(3):145 to 154. doi: 10.1177/2049463717730433
14. Kim DH, Choi SS, Yoon SH, et al. Ultrasound-guided genicular nerve block for knee osteoarthritis: a double-blind, randomized controlled trial of local anesthetic alone or in combination with corticosteroid. *Pain Physician.* 2018;21(1):41 to 52.
15. Choi WJ, Hwang SJ, Song JG, et al. Radiofrequency treatment relieves chronic knee osteoarthritis pain: a double-blind randomized controlled trial. *Pain.* 2011;152(3):481 to 487. doi: 10.1016/j.pain.2010.09.029
16. Kucera TJ, Boezaart AP. Regional anesthesia does not consistently block ischemic pain: two further cases and a review of the literature. *Pain Med.* 2014;15(2):316 to 319. doi: 10.1111/pme.12235. Epub 2013 Sep 18.
17. McGreevy K, Hurley RW, Erdek MA, Aner MM, Li S, Cohen SP. The effectiveness of repeat celiac plexus neurolysis for pancreatic cancer: a pilot study. *Pain Pract.* 2013;13: 89 to 95. doi:10.1111/j.1533-2500.2012.00557.x
18. Gonzalez Sotelo V, Maculée F, Minguell J, Bergé R, Franco C, Sala-Blanch X... Ultrasound-guided genicular nerve block for pain control after total knee replacement: preliminary case series and technical note. *Rev Esp Anestesiol Reanim.* 2017;64(10):568 to 576. doi:10.1016/j.redar.2017.04.001
19. Garza I. Occipital neuralgia. UpToDate. www.uptodate.com. Updated April 13, 2022. Accessed July 8, 2022.
20. Rosenblatt MA, Lai Y. Scalp block and cervical plexus block techniques. UpToDate. www.uptodate.com. Updated July 22, 2021. Accessed July 5, 2022.
21. Abdi S. Complex regional pain syndrome in adults: pathogenesis, clinical manifestations and diagnosis. UpToDate. www.uptodate.com. Updated June 22, 2022. Accessed July 8, 2022.
22. Abdi S. Complex regional pain syndrome in adults: Treatment, prognosis and prevention. UpToDate. www.uptodate.com. Updated July 14, 2020. Accessed July 8, 2022.
23. Fernandez-del Castillo C, Jimenez RE, Murphy JE. Supportive care of the patient with locally advanced or metastatic exocrine pancreatic cancer. UpToDate. www.uptodate.com. Updated December 22, 2021. Accessed July 5, 2022.
24. Freedman SD, Forsmark CE. Chronic pancreatitis: management. UpToDate. www.uptodate.com. Updated June 22, 2021. Accessed July 8, 2022.
25. Health Technology Assessment: Local injection therapy for cervicogenic headache and occipital neuralgia. Hayes. www.hayesinc.com. Published September 28, 2017. (annual review November 15, 2021) Accessed July 8, 2022.
26. Soloman M, Mekhail MN, Mekhail N. Radiofrequency treatment in chronic pain. *Expert Rev Neurother.* 2010;10(3):469 to 474. doi:10.1586/ern.09.153
27. Portenoy RK, Copenhaver DJ. Cancer pain management: Interventional therapies. UpToDate. www.uptodate.com. Updated May 10, 2022. Accessed July 8, 2022.

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28. Lavu H, Lengel HB, Sell NM, et al. A prospective, randomized, double-blind, placebo controlled trial on the efficacy of ethanol celiac plexus neurolysis in patients with operable pancreatic and periampullary adenocarcinoma. *J Am Coll Surg*. 2015;220(4):497 to 508. doi: 10.1016/j.jamcollsurg.2014.12.013
29. Wyse JM, Carone M, Paquin SC, Usatii M, Sahai AV. Randomized, double-blind, controlled trial of early endoscopic ultrasound-guided celiac plexus neurolysis to prevent pain progression in patients with newly diagnosed, painful, inoperable pancreatic cancer. *J Clin Oncol*. 2011;29(26):3541 to 3546. doi:10.1200/JCO.2010.32.2750
30. American Society of Anesthesiologists Task Force on Chronic Pain Management; American Society of Regional Anesthesia and Pain Medicine. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology* 2010;112(4):810 to 833. doi: 10.1097/ALN.0b013e3181c43103
31. Lee MJ, Guinn D, Hickenbottom S. Headache in pregnant and postpartum women. UpToDate. www.uptodate.com. Updated March 18, 2022. Accessed July 8, 2022.
32. Matharu MS, Cohen AS. Short-lasting unilateral neuralgiform headache attacks: treatment and prognosis. UpToDate. www.uptodate.com. Updated June 21, 2021. Accessed July 8, 2022.
33. Tauben D, Stacey BR. Approach to the management of chronic non-cancer pain in adults. UpToDate. www.uptodate.com. Updated May 6, 2022. Accessed July 5, 2022.
34. Smith TJ, Saiki CB. Cancer pain management. *Mayo Clin Proc*. 2015;90(10):1428 to 1439. doi: 10.1016/j.mayocp.2015.08.009
35. Chambers WA. Nerve blocks in palliative care. *Br J Anaesth*. 2008; P 101(1):95 to 100. doi:10.1093/bja/aen105
36. Bonwich, JB. Post-herniorrhaphy groin pain. UpToDate. www.uptodate.com. Updated March 29, 2022. Accessed July 8, 2022.
37. Jeng, CL, Rosenblatt, MA. Overview of peripheral nerve blocks. UpToDate. www.uptodate.com. Updated June 13, 2022. Accessed July 8, 2022.
38. Phillips, K, Schur PH. Management of isolated musculoskeletal chest pain. UpToDate. www.uptodate.com. Updated May 20, 2020. Accessed July 5, 2022.
39. Levy MJ, Wiersema, MJ. Endoscopic ultrasound-guided celiac plexus interventions for pain related to pancreatic disease. UpToDate. www.uptodate.com. Updated February 25, 2021. Accessed July 5, 2022.
40. Health Technology Assessment: Radiofrequency Nerve ablation for the management of osteoarthritis of the knee. Hayes. www.hayesinc.com. Published December 22, 2020. (annual review December 23, 2021) Accessed July 5, 2022.
41. Gardner TB, Adler DG, Forsmark CE, Sauer BG, Taylor JR, Whitcomb DC. ACG clinical guideline: chronic pancreatitis. *Am J Gastroenterol*. 2020;115(3):322 to 339. doi:10.14309/ajg.0000000000000535
42. Ho CC, Khan SA, Whealy MA. Trigeminal neuralgia. UpToDate. www.uptodate.com. Updated December 1, 2021. Accessed July 8, 2022.
43. Michalik A, Conger A, Smuck M, Maus TP, McCormick ZL. Intraosseous basivertebral nerve radiofrequency ablation for the treatment of vertebral body endplate low back pain: current evidence and future directions. *Pain Med*. 2021;22(Suppl 1):S24 to S30. doi:10.1093/pm/pnab117

CLINICAL POLICY

Nerve Blocks and Neurolysis for Pain Management

44. Evolving Evidence Review. Intracept intraosseous nerve ablation system (relieva medsystems inc.) for treatment of adults with low back pain. Hayes. www.hayesinc.com. Published July 30, 2021. Accessed July 8, 2022.
45. Fischgrund JS, Rhyne A, Franke J, et al. Intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: a prospective randomized double-blind sham-controlled multi-center study. *Eur Spine J*. 2018;27(5):1146 to 1156. doi:10.1007/s00586-018-5496-1
46. Fischgrund JS, Rhyne A, Macadaeg K, et al. Long-term outcomes following intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: 5-year treatment arm results from a prospective randomized double-blind sham-controlled multi-center study. *Eur Spine J*. 2020;29(8):1925 to 1934. doi:10.1007/s00586-020-06448-x
47. Khalil JG, Smuck M, Koreckij T, et al. A prospective, randomized, multicenter study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain. *Spine J*. 2019;19(10):1620 to 1632. doi:10.1016/j.spinee.20
48. Fischgrund JS, Rhyne A, Franke J, et al. Intraosseous Basivertebral Nerve Ablation for the Treatment of Chronic Low Back Pain: 2-Year Results From a Prospective Randomized Double-Blind Sham-Controlled Multicenter Study. *Int J Spine Surg*. 2019;13(2):110 to 119. Published 2019 Apr 30. doi:10.14444/601519.05.598
49. 510(k) Premarket Notification. Intracept Intraosseous Nerve Ablation System (RF Probe), Intracept Intraosseous Nerve Ablation System (Access Instruments), Relieva RF Generator. Summary of Safety and Effectiveness. U.S. Food and Drug Administration Center for Devices and Radiological Health Web site. https://www.accessdata.fda.gov/cdrh_docs/pdf19/K190504.pdf. Published May 3, 2019. Accessed July 5, 2022.
50. Local Coverage Determination: peripheral nerve blocks (L36850). Centers for Medicare and Medicaid Services Website. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=36850&ver=24&keyword=nerve%20blocks&keywordType=stats&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1> Published May 1, 2017 (revised November 21, 2019). Accessed July 11, 2022.