

Approval and implementation dates for specific health plans may vary. Please consult the applicable health plan for more details.

Clinical Appropriateness Guidelines

Musculoskeletal

Appropriate Use Criteria: Interventional Pain Management

Proprietary

© 2025 Carelon Medical Benefits Management, Inc. All rights reserved.

Table of Contents

Description and Application of the Guidelines	3
General Clinical Guideline	4
Epidural and Intradiscal Injection Procedures and Diagnostic Selective Nerve Root Blocks.....	6
Description	6
Clinical Indications	6
Contraindications	9
Exclusions.....	10
References	10
Codes	14
Paravertebral Facet Injection/Medial Branch Nerve Block/Neurolysis.....	16
Description	16
Clinical Indications	16
Exclusions.....	20
References	21
Codes	23
Regional Sympathetic Nerve Block	26
Description	26
Clinical Indications	26
Exclusions.....	28
References	28
Codes	29
Sacroiliac Joint Injection.....	30
Description	30
Clinical Indications	30
Exclusions.....	33
References	33
Codes	33
Spinal Cord and Dorsal Root Ganglion Stimulators	35
Description	35
Clinical Indications	35
Exclusions.....	38
References	38
Codes	42
History	43

Description and Application of the Guidelines

The Carelon Clinical Appropriateness Guidelines (hereinafter “the Carelon Clinical Appropriateness Guidelines” or the “Guidelines”) are designed to assist providers in making the most appropriate treatment decision for a specific clinical condition for an individual. The Guidelines establish objective and evidence-based criteria for medical necessity determinations, where possible, that can be used in support of the following:

- To establish criteria for when services are medically necessary
- To assist the practitioner as an educational tool
- To encourage standardization of medical practice patterns
- To curtail the performance of inappropriate and/or duplicate services
- To address patient safety concerns
- To enhance the quality of health care
- To promote the most efficient and cost-effective use of services

The Carelon guideline development process complies with applicable accreditation and legal standards, including the requirement that the Guidelines be developed with involvement from appropriate providers with current clinical expertise relevant to the Guidelines under review and be based on the most up-to-date clinical principles and best practices. Resources reviewed include widely used treatment guidelines, randomized controlled trials or prospective cohort studies, and large systematic reviews or meta-analyses. Carelon reviews all of its Guidelines at least annually.

Carelon makes its Guidelines publicly available on its website. Copies of the Guidelines are also available upon oral or written request. Additional details, such as summaries of evidence, a list of the sources of evidence, and an explanation of the rationale that supports the adoption of the Guidelines, are included in each guideline document.

Although the Guidelines are publicly available, Carelon considers the Guidelines to be important, proprietary information of Carelon, which cannot be sold, assigned, leased, licensed, reproduced or distributed without the written consent of Carelon.

Carelon applies objective and evidence-based criteria, and takes individual circumstances and the local delivery system into account when determining the medical appropriateness of health care services. The Carelon Guidelines are just guidelines for the provision of specialty health services. These criteria are designed to guide both providers and reviewers to the most appropriate services based on a patient’s unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice should be used when applying the Guidelines. Guideline determinations are made based on the information provided at the time of the request. It is expected that medical necessity decisions may change as new information is provided or based on unique aspects of the patient’s condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient and for justifying and demonstrating the existence of medical necessity for the requested service. The Guidelines are not a substitute for the experience and judgment of a physician or other health care professionals. Any clinician seeking to apply or consult the Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient’s care or treatment.

The Guidelines do not address coverage, benefit or other plan specific issues. Applicable federal and state coverage mandates take precedence over these clinical guidelines, and in the case of reviews for Medicare Advantage Plans, the Guidelines are only applied where there are not fully established CMS criteria. If requested by a health plan, Carelon will review requests based on health plan medical policy/guidelines in lieu of the Carelon Guidelines. Pharmaceuticals, radiotracers, or medical devices used in any of the diagnostic or therapeutic interventions listed in the Guidelines must be FDA approved or conditionally approved for the intended use. However, use of an FDA approved or conditionally approved product does not constitute medical necessity or guarantee reimbursement by the respective health plan.

The Guidelines may also be used by the health plan or by Carelon for purposes of provider education, or to review the medical necessity of services by any provider who has been notified of the need for medical necessity review, due to billing practices or claims that are not consistent with other providers in terms of frequency or some other manner.

General Clinical Guideline

Clinical Appropriateness Framework

Critical to any finding of clinical appropriateness under the guidelines for a specific diagnostic or therapeutic intervention are the following elements:

- Prior to any intervention, it is essential that the clinician confirm the diagnosis or establish its pretest likelihood based on a complete evaluation of the patient. This includes a history and physical examination and, where applicable, a review of relevant laboratory studies, diagnostic testing, and response to prior therapeutic intervention.
- The anticipated benefit of the recommended intervention is likely to outweigh any potential harms, including from delay or decreased access to services that may result (net benefit).
- Widely used treatment guidelines and/or current clinical literature and/or standards of medical practice should support that the recommended intervention offers the greatest net benefit among competing alternatives.
- There exists a reasonable likelihood that the intervention will change management and/or lead to an improved outcome for the patient.

Providers may be required to submit clinical documentation in support of a request for services. Such documentation must a) accurately reflect the clinical situation at the time of the requested service, and b) sufficiently document the ordering provider's clinical intent.

If these elements are not established with respect to a given request, the determination of appropriateness will most likely require a peer-to-peer conversation to understand the individual and unique facts that would justify a finding of clinical appropriateness. During the peer-to-peer conversation, factors such as patient acuity and setting of service may also be taken into account to the extent permitted by law.

Simultaneous Ordering of Multiple Diagnostic or Therapeutic Interventions

Requests for multiple diagnostic or therapeutic interventions at the same time will often require a peer-to-peer conversation to understand the individual circumstances that support the medical necessity of performing all interventions simultaneously. This is based on the fact that appropriateness of additional intervention is often dependent on the outcome of the initial intervention.

Additionally, either of the following may apply:

- Current literature and/or standards of medical practice support that one of the requested diagnostic or therapeutic interventions is more appropriate in the clinical situation presented; or
- One of the diagnostic or therapeutic interventions requested is more likely to improve patient outcomes based on current literature and/or standards of medical practice.

Repeat Diagnostic Intervention

In general, repeated testing of the same anatomic location for the same indication should be limited to evaluation following an intervention, or when there is a change in clinical status such that additional testing is required to determine next steps in management. At times, it may be necessary to repeat a test using different techniques or protocols to clarify a finding or result of the original study.

Repeated testing for the same indication using the same or similar technology may be subject to additional review or require peer-to-peer conversation in the following scenarios:

- Repeated diagnostic testing at the same facility due to technical issues
- Repeated diagnostic testing requested at a different facility due to provider preference or quality concerns

- Repeated diagnostic testing of the same anatomic area based on persistent symptoms with no clinical change, treatment, or intervention since the previous study
- Repeated diagnostic testing of the same anatomic area by different providers for the same member over a short period of time

Repeat Therapeutic Intervention

In general, repeated therapeutic intervention in the same anatomic area is considered appropriate when the prior intervention proved effective or beneficial and the expected duration of relief has lapsed. A repeat intervention requested prior to the expected duration of relief is not appropriate unless it can be confirmed that the prior intervention was never administered. Requests for ongoing services may depend on completion of previously authorized services in situations where a patient's response to authorized services is relevant to a determination of clinical appropriateness.

Epidural and Intradiscal Injection Procedures and Diagnostic Selective Nerve Root Blocks

Description

Epidural steroid injection (ESI) involves the administration of corticosteroid via insertion of a needle into the epidural space surrounding the spinal neural elements. Despite the lack of consistent evidence to support its efficacy, the procedure is widely used in patients with chronic back, neck, and radicular pain. In 2014, the U.S. Food and Drug Administration issued a drug safety communication about epidural injection of corticosteroids, citing the risk for rare but serious adverse effects (loss of vision, stroke, paralysis, and death). The best evidence supporting its use comes from trials that looked specifically at patients with radiculopathy due to disc herniation, where short-term benefit has been demonstrated.

Injections may be performed as part of a diagnostic workup of radicular pain, or as a therapeutic modality when multiple noninvasive treatment strategies have failed. Injections may be performed via an interlaminar approach, transforaminal approach, or caudal approach (through the sacral hiatus).

Diagnostic selective nerve root block (SNRB) is a related procedure that utilizes a small amount of anesthetic, injected via transforaminal approach, to anesthetize a specific spinal nerve root without spreading into the epidural space. Diagnostic SNRBs are used to evaluate a patient's anatomical level and/or source of radicular pain that is not clear on imaging studies and are often used in presurgical planning and decision making.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Conservative management¹ should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least one complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
 - Physical therapy rendered by a qualified provider of physical therapy services
 - Supervised home treatment program that includes **ALL** of the following:
 - Participation in a patient specific or tailored program
 - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
 - Compliance (documented or by clinician attestation on follow-up evaluation)
 - Exception to the physical therapy requirement in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:

- Anti-inflammatory medications and analgesics²
- Adjunctive medications such as nerve membrane stabilizers or muscle relaxants²
- Alternative therapies such as acupuncture, chiropractic manipulation, massage therapy, activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors) where applicable

¹ Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

² In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity: Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain that is at least 3 out of 10 in intensity and is associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging studies: All imaging must be performed and read by an independent radiologist. If discrepancies should arise in the interpretation of the imaging, the radiology report will supersede. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Procedural Best Practices to Prevent Neurologic Complications

All providers are expected to adhere to the procedural best practices for epidural steroid injections established by the U.S. Food and Drug Administration (FDA) Safe Use Initiative in 2015. The FDA Safe Use Initiative convened an expert multidisciplinary working group and 13 specialty stakeholder societies to review the existing evidence regarding neurologic complications associated with epidural corticosteroid injections. Seventeen procedural clinical considerations aimed at enhancing the safety of these injections, including the appropriate use of particulate steroids, were published. Providers are strongly encouraged to review the consensus opinions of the multidisciplinary working group (see Safeguards to Prevent Neurologic Complications after Epidural Steroid Injections: Consensus Opinions from a Multidisciplinary Working Group and National Organizations, available at: <https://anesthesiology.pubs.asahq.org/article.aspx?articleid=2119175>).

Note: Preauthorization is required for notification purposes only (medical necessity review is not required) when CPT 62320 and 62322 are used for post-procedural pain with any of the following ICD-10-CM diagnoses: G89.11 Acute pain due to trauma, G89.12 Acute post-thoracotomy pain, or G89.18 Other acute post procedural pain.

Epidural Injections

Procedural Requirements and Restrictions

- Injections must be performed under fluoroscopy or CT guidance with contrast to confirm needle placement, unless CT or fluoroscopy cannot be performed due to contraindications.
- A maximum of one spinal region may be treated per session (date of service). An anatomic spinal region for epidurals is defined as cervical/thoracic or lumbar/sacral.

- A maximum of four (4) therapeutic injection sessions may be performed in each spinal region in a rolling 12-month period regardless of the type of approach (transforaminal, interlaminar, or caudal) or the number of levels involved.
- If the initial injection in a newly diagnosed patient fails to achieve $\geq 50\%$ pain relief for at least 3 months, a one-time second injection may be performed no sooner than 2 weeks following the initial injection provided a different approach, level and/or medication, if appropriate, is used. The rationale and medical necessity for the second injection (i.e., failure to achieve $\geq 50\%$ pain relief for at least 3 months) must be documented in the medical record.
- No more than two (2) transforaminal injections may be performed at a single setting (e.g., single level bilaterally or two levels unilaterally). Injecting one level bilaterally would be considered two injections. Injecting two levels, each unilaterally, would also be considered two injections.
- For caudal or cervical/thoracic/lumbar interlaminar injections, only one injection per session may be performed and NOT in conjunction with a transforaminal injection. A session is defined as all epidural steroid injections or spinal procedures performed on a single day.
- Epidural injections should not be combined with any other procedure on spine except under special circumstances such as presence of a large facet joint synovial cyst or large effusion compressing a spinal nerve root in which case a transforaminal injection combined with an intraarticular facet synovial cyst aspiration and steroid injection may be given together.
- After three (3) injections in the same region, the total cumulative dose of steroid must be documented and may not exceed 240 mg of methylprednisolone or triamcinolone, 36 mg of betamethasone, or 45 mg of dexamethasone.
- This guideline does not apply when epidural injections (without any corticosteroid injectate) are used for postoperative pain management.
- This guideline does not apply when epidural injection is used for an implantable infusion pump trial.

Therapeutic Epidural Steroid Injection (Interlaminar, Caudal, Transforaminal)

Therapeutic epidural steroid injection of the cervical, thoracic, or lumbar spine may be considered medically necessary when **ALL** of the following criteria are met:

- Significant radicular pain (corresponding to a specific dermatomal distribution with or without paresthesia, numbness or weakness), radiculopathy (cervical, thoracic, or lumbar), or neurogenic claudication (lumbar) with associated functional impairment and completed physical exam
- Evidence of **EITHER of the following** is seen on an advanced imaging study* (MRI or CT) and correlates with the clinical findings:
 - Nerve root compression secondary to herniated disc (advanced imaging should be performed within the previous 18 months)
 - Spinal stenosis (central, lateral recess, foraminal, extraforaminal)
- The radicular pain has not responded to at least 4 weeks of appropriate conservative management, unless there is clear evidence of radiculopathy**, in which case epidural steroid injection may be performed following 2 weeks of conservative management

* *The initial epidural injection for a given episode of pain in the lumbar spine may be performed without confirmatory advanced imaging if the reported symptoms and exam findings are clearly diagnostic of nerve root compression or spinal stenosis.*

** *Clear evidence of radiculopathy is defined as pain distributed along specific nerve root with corresponding sensory changes, muscle weakness, and, where applicable, positive nerve root irritation sign.*

Repeat Therapeutic Epidural Steroid Injection

An injection is considered a repeat injection if the last injection was performed within the previous 12 months. If 12 months or more have elapsed, it is considered a new (initial) injection.

Repeat therapeutic epidural steroid injection may be considered medically necessary when **ALL** of the following criteria are met:

- Significant radicular pain, radiculopathy (cervical, thoracic, or lumbar), or neurogenic claudication (lumbar) with associated functional impairment
- The prior injection produced at least a 50% reduction in pain and functional improvement of at least 3 months' duration as documented in a follow-up evaluation
- Evidence of nerve root compression or stenosis at the requested levels and laterality as reported on advanced imaging (MRI or CT). The imaging findings should correlate with the clinical findings that are documented. For herniated nucleus pulposus (HNP), advanced imaging should be performed within the 18 months preceding the current request. If there is a fixed lesion at the targeted level (central, lateral recess, foraminal, or extraforaminal stenosis) not due to HNP, then there is no requirement for repeat imaging
- The patient continues to receive conservative management between injections

Diagnostic Selective Nerve Root Block

Diagnostic selective nerve root block (SNRB) is defined as the injection of local anesthetic only, for the purpose of determining the need for surgical intervention.

Diagnostic selective nerve root block (SNRB) must be performed under fluoroscopy or CT guidance with contrast to confirm needle placement, unless CT or fluoroscopy cannot be performed due to contraindications.

Diagnostic selective nerve root block may be considered medically necessary in the evaluation and diagnostic workup of radicular pain when **ALL** of the following criteria are met:

- Presence of significant radicular pain or radiculopathy (cervical, thoracic, or lumbar) with associated functional impairment
- Advanced imaging study has been completed
- The pain has not responded to at least 4 weeks of appropriate conservative management
- Surgery is being considered and documented by appropriate surgical consult in **ANY** of the following scenarios:
 - To confirm nerve root compression noted on an advanced imaging study (MRI or CT) and that is consistent with, and appears to be contributing to, the patient's symptoms.
 - To determine or confirm the (or most) symptomatic level (i.e., site of compression) in the presence of multi-level involvement for which the primary symptomatic level is unclear.
 - When radiculopathy is highly suspected but cannot be confirmed with advanced imaging studies.

Contraindications

The following conditions should prompt further evaluation prior to considering epidural steroid injection or diagnostic selective nerve root block:

- New onset of low back pain or neck pain in the setting of established malignancy, or where there is a suspicion of malignancy based on the clinical presentation
- New onset of low back pain or neck pain in persons with risk factors for spinal infection or osteoporotic fracture
- Comorbid conditions associated with increased risk of bleeding due to coagulopathy or treatment with anticoagulants
- Back pain in the setting of acute trauma

Additional contraindications include the following known or suspected conditions:

- Cauda equina syndrome
- Conus medullaris syndrome
- Prior imaging studies show there is inadequate epidural space for needle placement at the target level
- Epidural hematoma
- Epidural abscess
- Epidural mass
- Subarachnoid hemorrhage
- Spinal cord ischemia
- Spinal fracture which occurred less than 6 weeks prior to injection
- Demyelinating disease or other CNS processes which predispose to transverse myelitis
- Systemic infection
- Local infection at the injection site
- Uncontrolled diabetes

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to the following:

- Moderate-to-severe myelopathy on clinical exam
- Myelopathy associated with intramedullary cord signal change on T1 or T2 weighted MRI
- Isolated axial neck pain, mid-back pain, or low back pain
- Intradiscal spinal injections (including but not limited to chymopapain, collagenase, chondroitin sulfate ABC endolyase, condoliase, and oxygen-ozone) for chemonucleolysis
- Injection/infusion of neurolytic substance (e.g., alcohol, phenol, iced saline solutions), with or without other therapeutic substance, subarachnoid or epidural
- Diagnostic selective nerve root block at more than one level in one session
- More than two sessions for selective nerve root block
- Combined multiple spinal injections regardless of spinal region (e.g., epidural and facet injections) in a single session (except under special circumstances such as presence of a large facet joint synovial cyst compressing a spinal nerve root, in which case a transforaminal injection combined with an intraarticular facet synovial cyst aspiration and steroid injection may be given together)
- Epidural steroid injections performed with biologics or other substances not FDA approved or conditionally approved for this use
- Percutaneous intervertebral disc injection of allogeneic cellular and/or tissue-based product

References

1. Acaroglu E, Nordin M, Randhawa K, Chou R, Cote P, Mmopelwa T, Haldeman S. The Global Spine Care Initiative: a summary of guidelines on invasive interventions for the management of persistent and disabling spinal pain in low- and middle-income communities. *Eur Spine J.* 2018;27(Suppl 6):870-8.
2. Ammendolia C, Stuber KJ, Rok E, Rampersaud R, Kennedy CA, Pennick V, Steenstra IA, de Bruin LK, Furlan AD. Nonoperative treatment for lumbar spinal stenosis with neurogenic claudication. *Cochrane Database Syst Rev.* 2013(8):Cd010712.

3. Arden NK, Price C, Reading I, Stubbing J, Hazelgrove J, Dunne C, Michel M, Rogers P, Cooper C, Group WS. A multicentre randomized controlled trial of epidural corticosteroid injections for sciatica: the WEST study. *Rheumatology (Oxford)*. 2005;44(11):1399-406.
4. Bicket MC, Chakravarthy K, Chang D, Cohen SP. Epidural steroid injections: an updated review on recent trends in safety and complications. *Pain Manag*. 2015;5(2):129-46.
5. Bicket MC, Horowitz JM, Benzon HT, Cohen SP. Epidural injections in prevention of surgery for spinal pain: systematic review and meta-analysis of randomized controlled trials. *Spine J*. 2015;15(2):348-62.
6. Bono CM, Fau GG, Gilbert TJ, - GTF, Kreiner DS, Kreiner Ds Fau - Reitman C, C R. An evidence-based clinical guideline for the diagnosis and treatment of lumbar disc herniation with radiculopathy *Spine J*. 2011;11(1):64-72.
7. Choi EJ, Park SJ, Yoo YM, Yoon JU, Shin SW, Byeon GJ. Comparison of the Oblique Interlaminar and Transforaminal Lumbar Epidural Steroid Injections for Treatment of Low Back and Lumbosacral Radicular Pain. *J Pain Res*. 2021;14:407-14.
8. Chou R, Loeser JD, Owens DK, Rosenquist RW, Atlas SJ, Baisden J, Carragee EJ, Grabois M, Murphy DR, Resnick DK, Stanos SP, Shaffer WO, Wall EM. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain: an evidence-based clinical practice guideline from the American Pain Society. *Spine*. 2009;34(10):1066-77.
9. Chou R, Qaseem A, Snow V, Casey D, Cross JT, Jr.; Shekelle, P.; Owens, D. K. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Intern Med*. 2007;147(7):478-91.
10. Cohen SP, Doshi TL, Kurihara C, Reece D, Dolomisiewicz E, Phillips CR, Dawson T, Jamison D, Young R, Pasquina PF. Multicenter study evaluating factors associated with treatment outcome for low back pain injections. *Reg Anesth Pain Med*. 2022;47(2):89-99.
11. Cohen SP, Hayek S, Semenov Y, Pasquina PF, White RL, Veizi E, Huang JH, Kurihara C, Zhao Z, Guthmiller KB, Griffith SR, Verdun AV, Giampetro DM, Vorobeychik Y. Epidural steroid injections, conservative treatment, or combination treatment for cervical radicular pain: a multicenter, randomized, comparative-effectiveness study. *Anesthesiology*. 2014;121(5):1045-55.
12. Conger A, Cushman DM, Speckman RA, Burnham T, Teramoto M, McCormick ZL. The Effectiveness of Fluoroscopically Guided Cervical Transforaminal Epidural Steroid Injection for the Treatment of Radicular Pain; a Systematic Review and Meta-analysis. *Pain Medicine*. 2019;10:10.
13. COST B13 Working Group on Guidelines for Chronic Low Back Pain, Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanoli G. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J*. 2006;15 Suppl 2:S192-300.
14. COST B13 Working Group on Guidelines for Chronic Low Back Pain, van Tulder M, Becker A, Bekkering T, Breen A, del Real MT, Hutchinson A, Koes B, Laerum E, Malmivaara A. Chapter 3. European guidelines for the management of acute nonspecific low back pain in primary care. *Eur Spine J*. 2006;15 Suppl 2:S169-91.
15. Couto JM, Castilho EA, Menezes PR. Chemonucleolysis in lumbar disc herniation: a meta-analysis. *Clinics*. 2007;62(2):175-80.
16. De M, Mohan VK, Bhoi D, Talawar P, Kumar A, Garg B, Trikha A, Dehran M, Kashyap L, Shende DR. Transforaminal Epidural Injection of Local Anesthetic and Dorsal Root Ganglion Pulsed Radiofrequency Treatment in Lumbar Radicular Pain: A Randomized, Triple-Blind, Active-Control Trial. *Pain pract*. 2020;20(2):154-67.
17. Department of Veteran Affairs / Department of Defense. The Diagnosis and Treatment of Low Back Pain Work Group. VA/DoD Clinical Practice Guideline. (2022). *The Diagnosis and Treatment of Low Back Pain*. Washington, DC: U.S. Government Printing Office.
18. Diwan S, Manchikanti L, Benyamin RM, Bryce DA, Geffert S, Hameed HS, M. L.; Abdi, S.; Falco, F. J. Effectiveness of cervical epidural injections in the management of chronic neck and upper extremity pain. *Pain Physician*. 2012;15(4):E405-34.
19. Dworkin RH, O'Connor AB, Kent J, Mackey SC, Raja SN, Stacey BR, Levy RM, Backonja M, Baron R, Harke H, Loeser JD, Treede RD, Turk DC, Wells CD. Interventional management of neuropathic pain: NeuPSIG recommendations. *Pain*. 2013;154(11):2249-61.
20. Engquist M, Lofgren H, Oberg B, Holtz AP, A.; Soderlund, A.; Vavruch, L.; Lind, B. Surgery versus nonsurgical treatment of cervical radiculopathy: a prospective, randomized study comparing surgery plus physiotherapy with physiotherapy alone with a 2-year follow-up. *Spine*. 2013;38(20):1715-22.
21. Fritz JM, Lurie JD, Zhao W, Whitman JM, Delitto AB, G. P.; Weinstein, J. N. Associations between physical therapy and long-term outcomes for individuals with lumbar spinal stenosis in the SPORT study. *Spine J*. 2014;14(8):1611-21.
22. Fujiwara A, Watanabe K, Hashizume K, Shinohara K, Kawaguchi M. Transforaminal vs Interlaminar Epidural Steroid Injection for Acute-Phase Shingles: A Randomized, Prospective Trial. *Pain Physician*. 2018;21(4):373-82.
23. Gibson JN, Waddell G. Surgical interventions for lumbar disc prolapse. *Cochrane Database Syst Rev*. 2007(2):CD001350.
24. Guo JR, Jin XJ, Shen HC, Wang H, Zhou X, Liu XQ, Zhu NN. A comparison of the efficacy and tolerability of the treatments for sciatica: a network meta-analysis. *Ann Pharmacother*. 2017;51(12):1041-52.
25. Helm li S, Harmon PC, Noe C, Calodney AK, Abd-Elsayed A, Knezevic NN, Racz GB. Transforaminal Epidural Steroid Injections: A Systematic Review and Meta-Analysis of Efficacy and Safety. *Pain Physician*. 2021;24(S1):S209-S32.
26. Huang R, Meng Z, Cao Y, Yu J, Wang S, Luo C, Yu L, Xu Y, Sun Y, Jiang L. Nonsurgical medical treatment in the management of pain due to lumbar disc prolapse: A network meta-analysis. *Semin Arthritis Rheum*. 2019;04:04.

27. Ibrahim ME, Awadalla MA, Omar AS, Al-Shatouri M. Ultrasound-guided caudal epidural steroid injection in chronic radicular low back pain: short-term electrophysiologic benefits. *BJR Open*. 2020;2(1):20190006.
28. Institute for Clinical Systems Improvement. Adult Acute and Subacute Low Back Pain 2018. Available from: <https://www.icsi.org/wp-content/uploads/2021/11/March-2018-LBP-Interactive2.pdf>.
29. Institute of Health Economics, Toward optimized practice: evidence-informed primary care management of low back pain, 3rd edition, (2017) Alberta CA, Institute of Health Economics, 49 pgs.
30. Kadanka Z, Bednarik J, Novotny O, Urbanek ID, L. Cervical spondylotic myelopathy: conservative versus surgical treatment after 10 years. *Eur Spine J*. 2011;20(9):1533-8.
31. Kaye AD, Manchikanti L, Abdi S, Atluri S, Bakshi S, Benyamin R, Boswell MV, Buenaventura R, Candido KD, Cordero HJ, Datta S, Doulatram G, Gharibo CG, Grami V, Gupta S, Jha S, Kaplan ED, Malla Y, Mann DP, Nampiaparampil DE, Racz G, Raj P, Rana MV, Sharma ML, Singh V, Sooin A, Staats PS, Vallejo R, Wargo BW, Hirsch JA. Efficacy of Epidural Injections in Managing Chronic Spinal Pain: A Best Evidence Synthesis. *Pain Physician*. 2015;18(6):E939-1004.
32. Kovacs FM, Urrutia G, Alarcon JD. Surgery versus conservative treatment for symptomatic lumbar spinal stenosis: a systematic review of randomized controlled trials. *Spine*. 2011;36(20):E1335-51.
33. Kreiner DS, Baisden J, Mazanec DJ, Patel RD, Bess RS, Burton D, Chutkan NB, Cohen BA, Crawford CH, 3rd, Ghiselli G, Hanna AS, Hwang SW, Kilincer C, Myers ME, Park P, Rosolowski KA, Sharma AK, Taleghani CK, Trammell TR, Vo AN, Williams KD. Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of adult isthmic spondylolisthesis. *Spine J*. 2016;16(12):1478-85.
34. Kreiner DS, Hwang SW, Easa JE, Resnick DK, Baisden JL, Bess S, Cho CH, DePalma MJ, Dougherty P, 2nd, Fernand R, Ghiselli G, Hanna AS, Lamer T, Lisi AJ, Mazanec DJ, Meagher RJ, Nucci RC, Patel RD, Sembrano JN, Sharma AK, Summers JT, Taleghani CK, Tontz WL, Jr., Toton JF. An evidence-based clinical guideline for the diagnosis and treatment of lumbar disc herniation with radiculopathy. *Spine J*. 2014;14(1):180-91.
35. Kreiner DS, Shaffer WO, Baisden JL, Gilbert TJ, Summers JT, Toton JF, Hwang SW, Mendel RC, Reitman CA. An evidence-based clinical guideline for the diagnosis and treatment of degenerative lumbar spinal stenosis (update). *Spine J*. 2013;13(7):734-43.
36. Lee JH, Choi KH, Kang S, Kim DH, Kim BR, Kim W, Kim JH, Do KH, Do JG, Ryu JS, Min K, Bahk SG, Park YH, Bang HJ, Shin KH, Yang S, Yang HS, Yoo SD, Yoo JS, Yoon KJ, Yoon SJ, Lee GJ, Lee SY, Lee SC, Lee SY, Lee IS, Lee JS, Lee CH, Lim JY, Han JY, Han SH, Sung DH, Cho KH, Kim SY, Kim HJ, Ju W. Nonsurgical treatments for patients with radicular pain from lumbosacral disc herniation. *Spine J*. 2019;12:12.
37. Lee JH, Lee SH. Can repeat injection provide clinical benefit in patients with lumbosacral diseases when first epidural injection results only in partial response? *Pain Physician*. 2016;19(2):E283-90.
38. Lee JH, Lee SH. Can repeat injection provide clinical benefit in patients with cervical disc herniation and stenosis when the first epidural injection results only in partial response? *Medicine (Baltimore)*. 2016;95(29):e4131.
39. Lee JH, Shin KH, Bahk SJ, Lee GJ, Kim DH, Lee CH, Kim DH, Yang HS, Lee SH. Comparison of clinical efficacy of transforaminal and caudal epidural steroid injection in lumbar and lumbosacral disc herniation: A systematic review and meta-analysis. *Spine J*. 2018;18(12):2343-53.
40. Lee JH, Shin KH, Park SJ, Lee GJ, Lee CH, Kim DH, Kim DH, Yang HS. Comparison of Clinical Efficacy Between Transforaminal and Interlaminar Epidural Injections in Lumbosacral Disc Herniation: A Systematic Review and Meta-Analysis. *Pain Physician*. 2018;21(5):433-48.
41. Lewis RA, Williams NH, Sutton AJ, Burton K, Din NU, Matar HE, Hendry M, Phillips CJ, Nafees S, Fitzsimmons D, Rickard I, Wilkinson C. Comparative clinical effectiveness of management strategies for sciatica: systematic review and network meta-analyses. *Spine J*. 2015;15(6):1461-77.
42. Li K, Zhang T, Gao K, Lv CL. The Utility of Diagnostic Transforaminal Epidural Injection in Selective Percutaneous Endoscopic Lumbar Discectomy for Multilevel Disc Herniation with Monoradicular Symptom: A Prospective Randomized Control Study. *World Neurosurg*. 2019;02:02.
43. Liu K, Liu P, Liu R, Wu X, Cai M. Steroid for epidural injection in spinal stenosis: a systematic review and meta-analysis. *Drug Des Devel Ther*. 2015;9:707-16.
44. MacVicar J, King W, Landers MH, Bogduk N. The effectiveness of lumbar transforaminal injection of steroids: a comprehensive review with systematic analysis of the published data. *Pain Med*. 2013;14(1):14-28.
45. MacVicar J, Kreiner DS, Duszynski B, Kennedy DJ. Appropriate use criteria for fluoroscopically guided diagnostic and therapeutic sacroiliac interventions: results from the Spine Intervention Society Convened Multispecialty Collaborative. *Pain Medicine*. 2017;18(11):2081-95.
46. Manchikanti L, Abdi S, Atluri S, Benyamin RM, Boswell MV, Buenaventura RM, Bryce DA, Burks PA, Caraway DL, Calodney AK, Cash KA, Christo PJ, Cohen SP, Colson J, Conn A, Cordero H, Coubarous S, Datta S, Deer TR, Diwan S, Falco FJ, Fellows B, Geffert S, Grider JS, Gupta S, Hameed H, Hameed M, Hansen H, Helm S, 2nd, Janata JW, Justiz R, Kaye AD, Lee M, Manchikanti KN, McManus CD, Onyewu O, Parr AT, Patel VB, Racz GB, Sehgal N, Sharma ML, Simopoulos TT, Singh V, Smith HS, Snook LT, Swicegood JR, Vallejo R, Ward SP, Wargo BW, Zhu J, Hirsch JA. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. 2013;16(2 Suppl):S49-283.

47. Manchikanti L, Benyamin RM, Falco FJ, Kaye AD, Hirsch JA. Do Epidural Injections Provide Short- and Long-term Relief for Lumbar Disc Herniation? A Systematic Review. *Clin Orthop Relat Res.* 2015;473(6):1940-56.
48. Manchikanti L, Knezevic NN, Navani A, Christo PJ, Limerick G, Calodney AK, Grider J, Harned ME, Cintron L, Gharibo CG, Shah S, Nampiaparampil DE, Candido KD, Soim A, Kaye AD, Kosanovic R, Magee TR, Beall DP, Atluri S, Gupta M, Helm li S, Wargo BW, Diwan S, Aydin SM, Boswell MV, Haney BW, Albers SL, Latchaw R, Abd-Elsayed A, Conn A, Hansen H, Simopoulos TT, Swicegood JR, Bryce DA, Singh V, Abdi S, Bakshi S, Buenaventura RM, Cabaret JA, Jameson J, Jha S, Kaye AM, Pasupuleti R, Rajput K, Sanapati MR, Sehgal N, Trescot AM, Racz GB, Gupta S, Sharma ML, Grami V, Parr AT, Knezevic E, Datta S, Patel KG, Tracy DH, Cordner HJ, Snook LT, Benyamin RM, Hirsch JA. Epidural Interventions in the Management of Chronic Spinal Pain: American Society of Interventional Pain Physicians (ASIPP) Comprehensive Evidence-Based Guidelines. *Pain Physician.* 2021;24(S1):S27-s208.
49. Manchikanti L, Nampiaparampil DE, Candido KD, Bakshi S, Grider JS, Falco FJ, Sehgal N, Hirsch JA. Do cervical epidural injections provide long-term relief in neck and upper extremity pain? A systematic review. *Pain Physician.* 2015;18(1):39-60.
50. Meng H, Fei Q, Wang B, Yang Y, Li D, Li J, Su N. Epidural injections with or without steroids in managing chronic low back pain secondary to lumbar spinal stenosis: a meta-analysis of 13 randomized controlled trials. *Drug Des Devel Ther.* 2015;9:4657-67.
51. Murthy NS, Geske JR, Shelerud RA, Wald JT, Diehn FE, Thielen KR, Kaufmann TJ, Morris JM, Lehman VT, Amrami KK, Carter RE, Maus TP. The effectiveness of repeat lumbar transforaminal epidural steroid injections. *Pain Med.* 2014;15(10):1686-94.
52. National Institute for Health and Care Excellence (NICE). National Institute for Health and Care Excellence: Guidelines. Low back pain and sciatica in over 16s: assessment and management. London: National Institute for Health and Care Excellence (NICE) Copyright © NICE 2020.; 2020.
53. North American Spine Society, Lumbar transforaminal epidural steroid injections: review & recommendation statement, (2013) Burr Ridge IL, North American Spine Society, 46 pgs.
54. Oliveira CB, Maher CG, Ferreira ML, Hancock MJ, Oliveira VC, McLachlan AJ, Koes BW, Ferreira PH, Cohen SP, Pinto RZ. Epidural corticosteroid injections for lumbosacral radicular pain. *Cochrane Database Syst Rev.* 2020;4(4):Cd013577.
55. Peolsson A, Soderlund A, Engquist M, Lind BL, H.; Vavruch, L.; Holtz, A.; Winstrom-Christersson, A.; Isaksson, I.; Oberg, B. Physical function outcome in cervical radiculopathy patients after physiotherapy alone compared with anterior surgery followed by physiotherapy: a prospective randomized study with a 2-year follow-up. *Spine.* 2013;38(4):300-7.
56. Radcliff K, Kepler C, Hilibrand A, Rihn J, Zhao W, Lurie J, Tosteson T, Vaccaro A, Albert T, Weinstein J. Epidural steroid injections are associated with less improvement in patients with lumbar spinal stenosis: a subgroup analysis of the Spine Patient Outcomes Research Trial. *Spine.* 2013;38(4):279-91.
57. Rathmell JP, Benzon HT, Dreyfuss P, Huntoon M, Wallace M, Baker R, Riew KD, Rosenquist RW, Aprill C, Rost NS, Buvanendran A, Kreiner DS, Bogduk N, Fournay DR, Fraifeld E, Horn S, Stone J, Vorenkamp K, Lawler G, Summers J, Kloth D, O'Brien D, Jr., Tutton S. Safeguards to prevent neurologic complications after epidural steroid injections: consensus opinions from a multidisciplinary working group and national organizations. *Anesthesiology.* 2015;122(5):974-84.
58. van Wijck AJ, Opstelten W, Moons KG, van Essen GA, Stolker RJ, Kalkman CJ, Verheij TJ. The PINE study of epidural steroids and local anaesthetics to prevent postherpetic neuralgia: a randomised controlled trial. *Lancet.* 2006;367(9506):219-24.
59. van Wijck AJ, Wallace M, Mekhail N, van Kleef M. Evidence-based interventional pain medicine according to clinical diagnoses. 17. Herpes zoster and post-herpetic neuralgia. *Pain pract.* 2011;11(1):88-97.
60. Wardlaw D, Rithchie IK, Sabboubeh AF, Vavdha M, Downing M, Eastmond CJ. Prospective randomized trial of chemonucleolysis compared with surgery for soft disc herniation with 1-year, intermediate, and long-term outcome: part II: the radiological outcome. *Spine.* 2013;38(17):E1058-64.
61. Wie C, Gupta R, Maloney J, Pew S, Freeman J, Strand N. Interventional Modalities to Treat Complex Regional Pain Syndrome. *Curr Pain Headache Rep.* 2021;25(2):10.
62. Wylde V, Dennis J, Beswick AD, Bruce J, Eccleston C, Howells N, Peters TJ, Gooberman-Hill R. Systematic review of management of chronic pain after surgery. *Br J Surg.* 2017;104(10):1293-306.
63. Yang S, Kim W, Kong HH, Do KH, Choi KH. Epidural steroid injection versus conservative treatment for patients with lumbosacral radicular pain: A meta-analysis of randomized controlled trials. *Medicine (Baltimore).* 2020;99(30):e21283.
64. Zaina F, Tomkins-Lane C, Carragee E, Negrini S. Surgical versus non-surgical treatment for lumbar spinal stenosis. *Cochrane Database Syst Rev.* 2016(1):Cd010264.
65. Zernikow B, Wager J, Brehmer H, Hirschfeld G, Maier C. Invasive treatments for complex regional pain syndrome in children and adolescents: a scoping review. *Anesthesiology.* 2015;122(3):699-707.
66. Zhai J, Zhang L, Li M, Tian Z, Tian Y, Zheng W, Chen J, Huang T, Li X. Epidural injection with or without steroid in managing chronic low-back and lower extremity pain: a meta-analysis of 10 randomized controlled trials. *American J Ther.* 2017;24(3):e259-e69.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Medical necessity reviews are initiated by submitting the correct AMA CPT codes. Specific CPT codes for services should be used when available. The submitted codes must accurately identify the service or procedure to be performed. If no such code exists, contact the health plan directly and report the service or procedure using the appropriate unlisted procedure or Not Otherwise Classified (NOC) code (which often ends in 99). Do not submit a code that is “close to” the procedure performed in lieu of an unlisted code. Correct coding demands that the code reported is appropriate for the service provided (i.e., a code that most accurately represents the service provided), and not a code that is similar but represents another service. (*CPT® Assistant*, December 2010) Nonspecific or NOC codes may be subject to additional documentation requirements and review.

**Note: Preauthorization is required for notification purposes only (medical necessity review is not required) when CPT 62320 and 62322 are used for postprocedural pain with any of the following ICD-10-CM diagnoses: G89.11 Acute pain due to trauma, G89.12 Acute post-thoracotomy pain, or G89.18 Other acute post procedural pain.*

CPT/HCPCS

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five-digit codes, nomenclature and other data are copyright by the American Medical Association. All Rights Reserved. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

Epidural Injection Procedures and Diagnostic Selective Nerve Root Blocks

62280	Injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; subarachnoid
62281	Injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; epidural, cervical or thoracic
62282	Injection/infusion of neurolytic substance (eg, alcohol, phenol, iced saline solutions), with or without other therapeutic substance; epidural, lumbar, sacral (caudal)
62320*	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; without imaging guidance
62321	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; with imaging guidance (ie, fluoroscopy or CT)
62322*	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance
62323	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (ie, fluoroscopy or CT)
62324	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, cervical or thoracic; without imaging guidance
62325	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, cervical or thoracic; with imaging guidance (ie, fluoroscopy or CT)
62326	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance
62327	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (ie, fluoroscopy or CT)

64479	Injection(s), anesthetic agent(s) and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); cervical or thoracic, single level
64480	Injection(s), anesthetic agent(s) and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional level (List separately in addition to code for primary procedure)
64483	Injection(s), anesthetic agent(s) and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level
64484	Injection(s), anesthetic agent(s) and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional level (List separately in addition to code for primary procedure)

Percutaneous Intradiscal Procedures

Percutaneous injections of allogeneic cellular and/or tissue-based product, intervertebral disc, spinal

62292	Injection procedure for chemonucleolysis, including discography, intervertebral disc, single or multiple levels, lumbar
0627T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with fluoroscopic guidance, lumbar; first level
0628T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with fluoroscopic guidance, lumbar; each additional level (List separately in addition to code for primary procedure)
0629T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with CT guidance, lumbar; first level
0630T	Percutaneous injection of allogeneic cellular and/or tissue-based product, intervertebral disc, unilateral or bilateral injection, with CT guidance, lumbar; each additional level (List separately in addition to code for primary procedure)

Paravertebral Facet Injection/Medial Branch Nerve Block/Neurolysis

Description

Paravertebral facet joints, also referred to as zygapophyseal joints or Z-joints, have been implicated as a source of chronic neck and low back pain with a prevalence of up to 70% in the cervical spine, and up to 30% in the lumbar spine. Neither physical exam nor imaging has adequate diagnostic power to confidently identify the facet joint as a pain source. Facet joint injection techniques have evolved primarily as a diagnostic tool for pain originating in these joints but have been widely utilized to treat chronic pain shown to be of facet origin.

Injections may be performed at one of two sites, either the joint itself (intra-articular injection) or the nerve that supplies it (medial branch of the dorsal ramus of segmental spinal nerves). Diagnostic injections are performed with an anesthetic agent alone, while therapeutic injections involve administration of a corticosteroid, with or without an anesthetic. Following confirmation of facet pathology using a diagnostic medial branch block, select patients may undergo a radiofrequency nerve ablation procedure. Studies have validated the efficacy of this intervention in chronic pain of facet origin.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Conservative management¹ should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least one complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
 - Physical therapy rendered by a qualified provider of physical therapy services
 - Supervised home treatment program that includes **ALL** of the following:
 - Participation in a patient specific or tailored program
 - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
 - Compliance (documented or by clinician attestation on follow-up evaluation)
 - Exception to the physical therapy requirement in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment** requirement includes **ANY** of the following:
 - Anti-inflammatory medications and analgesics²
 - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants²

- Alternative therapies such as acupuncture, chiropractic manipulation, massage therapy, activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors) where applicable

¹ Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

² In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity: Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain that is at least 3 out of 10 in intensity and is associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging studies: All imaging must be performed and read by an independent radiologist. If discrepancies should arise in the interpretation of the imaging, the radiology report will supersede. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Patient Requirements

Patients must meet **ALL** of the following criteria:

- Moderate-to-severe pain with functional impairment of at least 3 months' duration
- Predominant axial pain that is not attributable to radiculopathy (with the exception of facet joint synovial cysts), myelopathy, or neurogenic claudication
- Physical exam findings which are consistent with the facet joint as the presumed source of pain
- Absence of non-facet pathology that could explain the source of the patient's pain, such as fracture, tumor, or infection
- Absence of prior surgical fusion at the proposed level
- Lack of improvement or resolution after completing at least 6 weeks of conservative management for the current condition or episode of pain

Procedural Requirements

Procedures must be performed with image guidance, either fluoroscopy or CT.

An anatomic spinal region for paravertebral facet joint block (diagnostic or therapeutic) is defined as cervical ([CPT codes 64490, 64491, 64492](#)) or lumbar ([CPT codes 64493, 64494, 64495](#)).

Diagnostic Medial Branch Blocks with Local Anesthetic

The primary utility of medial branch blocks (MBB) is to determine the suitability of the patient for a radiofrequency neurotomy of painful segmental levels in order to achieve long-term pain management. A positive response is

defined as at least 80% relief of the primary (index) pain, with the onset and duration of relief being consistent with the agent employed.

Note: The patient must be experiencing pain at the time of the injection (generally rated at least 3 out of 10 in intensity) in order to determine whether a response has occurred. Provocative maneuvers or positions which normally exacerbate index pain should also be assessed and documented before and after the procedure. Diagnostic medial branch blocks are to be performed with local anesthetic agents only. The concurrent use of steroids is not medically necessary, as it may compromise the integrity of the diagnostic test.

- Dual medial branch blocks, defined as injections performed in the same location(s) on two separate occasions at least one week apart, are necessary to confirm the diagnosis due to the unacceptably high false positive rate of single medial branch block injections.
- A confirmatory injection is considered medically necessary only if the first injection results in a positive response (defined as at least 80% or more relief in primary pain index). If the second injection also results in a positive response, the target joint(s) is/are the confirmed pain generator(s).
- For each covered spinal region, a maximum of four (4) diagnostic joint sessions are considered medically reasonable and necessary per rolling 12 months, in recognition that the pain generator cannot always be identified with the initial and confirmatory diagnostic procedure.
- A maximum of only 2 diagnostic sessions per level given on separate occasions are appropriate and medically necessary for determination of the patient's candidacy for radiofrequency ablation in a given year (cervical or lumbar).
- For each covered spinal region (cervical or lumbar), diagnostic medial branch blocks may be performed at a maximum of two (2) levels, either unilateral or bilateral, per session.
- A single or dual diagnostic medial branch block may be considered medically necessary for confirming a pars defect as the primary pain generator for low back pain (except in isolated pars defects in young athletes). Documentation of planned surgery or surgical consultation is required.

Therapeutic Intraarticular Facet Joint Injections

Therapeutic intraarticular facet injections are generally considered **not medically necessary** for facetogenic axial low back pain. The preferred approach is thermal radiofrequency nerve ablation after positive dual diagnostic medial branch blocks. However, an exception for therapeutic intraarticular facet injections may be considered medically necessary when **ALL** [Patient Requirements](#) for facet injections are met **AND ANY** of the following conditions (1-4) are documented:

1. There is suspected inflammatory facetogenic pain due to systemic inflammatory arthropathies clearly documented in the patient's history and assessment (e.g., rheumatoid arthritis)
2. Denervation is contraindicated (e.g., young person in whom denervation may result in muscle atrophy that can adversely impact their condition (e.g., spondylolisthesis) or ADLs)
3. Individuals at risk for complications with radiofrequency neurotomy (RFN) treatment (e.g., pacemaker-dependent patients and those with automatic implantable cardioverter-defibrillators, presence of another electronic device such as a spinal cord stimulator or an intrathecal infusion device, older individuals on anticoagulation therapy, presence of surgical hardware)

For the exceptions listed above only:

- Therapeutic facet joint injection at the same anatomic site for recurrent pain may be repeated if the prior injection provided at least 50% reduction in pain with functional improvement of at least 3 months duration
- For each covered spinal region, a maximum of four (4) therapeutic facet joint (IA) sessions are considered medically reasonable and necessary per rolling 12 months
- For each covered spinal region (cervical or lumbar), therapeutic facet joint injection may be performed at a maximum of two (2) levels, either unilateral or bilateral, per session.

4. Evidence of nerve root compression due to a facet synovial cyst or large effusion. Patients must meet **ALL** of the following criteria to receive therapeutic intraarticular (IA) facet joint injection:
 - Evidence of nerve root compression due to a facet synovial cyst/large effusion when seen on an advanced imaging study (MRI or CT) performed within the previous 12 months that correlates with the clinical findings
 - Associated moderate-to-severe radicular pain and functional limitations
 - Cyst aspiration/rupture may be repeated once within the 12-month period and only if there is consistent pain reduction of 50% or more for a minimum of three (3) months

The use of therapeutic intraarticular facet injections is considered **not medically necessary** for all other indications.

Thermal Medial Branch Radiofrequency Neurotomy

- Medial branch radiofrequency neurotomy (RFN) may be offered to patients if dual diagnostic medial branch block injections (with local anesthetic only without any steroids), performed within the last 6 months, each produce at least 80% relief of the primary (index) pain and the onset and minimum duration of relief is consistent with the local anesthetic agent employed.
- Radiofrequency neurotomy may be performed at the same level no more than twice annually and only if the initial radiofrequency lesion results in significant pain relief (at least 50%) and improvement in patient specific ADLs for at least 6 months.
- For each covered spinal region (cervical or lumbar), radiofrequency neurotomy may be performed at a maximum of two (2) levels, either unilateral or bilateral, per session.
- Repeat radiofrequency neurotomy to treat recurrent facet joint pain in a patient who has failed other conservative measures may be considered medically necessary without repeating diagnostic medial branch block injections if the patient has experienced significant and prolonged relief of pain (at least 50% reduction for at least 6 months) and improvement of function in the past following radiofrequency ablation. One confirmatory diagnostic medial branch block may be indicated but not necessary to confirm the same involved facet level.
- For each covered spinal region, a maximum of two (2) radiofrequency sessions are considered medically reasonable and necessary per rolling 12 months.
- Radiofrequency neurotomy may not be performed at C0-C1 or at C1-C2.

Intraosseous Basivertebral Nerve Ablation

Thermal destruction of the lumbar intraosseous basivertebral nerve (BVN) may be considered medically necessary for the treatment of select chronic low back pain in patients who meet **ALL** the following criteria:

- Skeletally mature patient
- History of chronic lumbar back pain for at least 6 months with a minimum VAS score of ≥ 4 on most days
- Associated significant functional impairment as measured by an ODI ≥ 30
- Documented failure to respond to at least 6 consecutive months of non-surgical management
- All other possible pain sources including, but not limited to, fracture, tumor, infection, or significant spinal deformity have been ruled out
- Imaging studies confirm **BOTH** of the following:
 - Evidence of Modic Type I changes on MRI (i.e., hypointense T1 and hyperintense T2) or Type II changes on MRI (hyperintense T1 and hyperintense T2) in the endplates of 1 or more vertebrae from L3-S1

- Absence of non-vertebrogenic pathology that could explain the source of the patient's pain including, but not limited to, fracture, tumor, or infection
- Statement from a primary care physician, neurologist, physiatrist, psychiatrist, psychologist, or other licensed behavioral and/or medical health care provider attesting to the absence of untreated, underlying mental health conditions/issues (e.g., depression, drug abuse, alcohol abuse) as a major contributor to chronic back pain

Exclusions/Contraindications for Intraosseous BVN Ablation

- Skeletally immature patients (generally <18 years of age)
- Patients with severe cardiac or pulmonary compromise
- Concurrent vertebral augmentation procedures at the intended levels
- MRI evidence of Modic changes at levels other than L3-S1
- Radicular pain (defined as nerve pain following a dermatomal distribution and that correlates with nerve compression in imaging)
- Previous lumbar spine surgery at the intended treatment level (discectomy/laminectomy allowed if > 6 months prior to baseline and radicular pain resolved)
- Symptomatic spinal stenosis (defined as the presence of neurogenic claudication confirmed by imaging)
- Diagnosed osteoporosis (T-score of -2.5 or less), metabolic bone disease, spine fragility fracture history, or trauma/compression fracture at intended level, or spinal cancer
- Spine infection, active systemic infection, bleeding diathesis
- Radiographic evidence of other pain etiology:
 - Disc extrusion or protrusion > 5 mm at levels L3-S1
 - Spondylolisthesis > 2 mm at any level
 - Spondylolysis at any level
 - Facet arthrosis/effusion correlated with facet-mediated LBP at levels L3-S1
- Current use of extended-release opioids with addiction behaviors
- BMI > 40
- Contraindicated to MRI, allergies to components of the device, or active implantable devices
- Pregnant or lactating women
- Repeat procedure at the same level of a prior intraosseous ablation

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to the following:

- Diagnostic medial branch block at the same level as a previously successful radiofrequency ablation (RFA) procedure (exception: if there is an extended time (2 years or more) since the last RFA, and/or there is a question as to the source of the recurrent pain, then diagnostic procedures may be repeated)
- Diagnostic intraarticular facet joint injection
- Diagnostic medial branch blocks for reasons other than candidacy for RFA
- Therapeutic medial branch block (use of corticosteroid with diagnostic medial branch block)
- Therapeutic intraarticular facet joint injection for any other indication not listed above

- Diagnostic or therapeutic intraarticular injection, medial branch block, or RFA in the thoracic region with the exception of C7-T1 and T12-L1
- Diagnostic medial branch blocks, therapeutic intraarticular facet joint injections, and radiofrequency neurotomy when performed at C0-C1 or at C1-C2
- Use of medial branch block or radiofrequency neurotomy in the setting of moderate-to-severe spondylolisthesis (grade 3 or higher)
- Use of medial branch block or radiofrequency neurotomy in the setting of an isolated pars defect (except diagnostic medial branch block for pars defect diagnosis presurgical workup)
- Use of medial branch block, intraarticular facet injection, or radiofrequency neurotomy at the level of a prior surgical fusion
- Use of chemical neurolysis for medial branch ablation
- Use of laser neurolysis for medial branch ablation
- Use of open surgical neurolysis
- Use of endoscopic neurolysis or rhizotomy
- Use of cryodeneration (cryoablation) for medial branch ablation
- Use of low-grade thermal energy (less than 80 degrees Celsius) radiofrequency denervation for medial branch ablation
- Use of pulsed radiofrequency denervation for medial branch ablation
- Any facet joint interventions performed under ultrasound guidance
- Intraarticular or extraarticular facet joint prolotherapy, or platelet-rich plasma injection
- Facet joint procedures in more than one spinal region in a single session
- Combined multiple spinal injections regardless of spinal region (e.g., epidural and facet injections) in a single session (except under special circumstances such as presence of a large facet joint synovial cyst compressing a spinal nerve root in which case a transforaminal injection combined with an intraarticular facet synovial cyst aspiration and steroid injection may be given together)

References

1. Arsanious D, Gage E, Koning J, Sarhan M, Chaiban G, Almualim M, Atallah J. Pulsed Dose Radiofrequency Before Ablation of Medial Branch of the Lumbar Dorsal Ramus for Zygapophyseal Joint Pain Reduces Post-procedural Pain. *Pain Physician*. 2016;19(7):477-84.
2. Baroncini A, Maffulli N, Eschweiler J, Knobe M, Tingart M, Migliorini F. Management of facet joints osteoarthritis associated with chronic low back pain: A systematic review. *Surgeon*. 2021;10:10.
3. Boody BS, Sperry BP, Harper K, Macadaeg K, McCormick ZL. The Relationship Between Patient Demographic and Clinical Characteristics and Successful Treatment Outcomes After Basivertebral Nerve Radiofrequency Ablation: A Pooled Cohort Study of Three Prospective Clinical Trials. *Pain Medicine*. 2022;23(Suppl 2):S2-S13.
4. Cetin A, Yektas A. Evaluation of the Short- and Long-Term Effectiveness of Pulsed Radiofrequency and Conventional Radiofrequency Performed for Medial Branch Block in Patients with Lumbar Facet Joint Pain. *Pain Res Manag*. 2018;2018:7492753.
5. Chang MC. Effect of Pulsed Radiofrequency Treatment on the Thoracic Medial Branch for Managing Chronic Thoracic Facet Joint Pain Refractory to Medial Branch Block with Local Anesthetics. *World Neurosurg*. 2018;111:e644-e8.
6. Chou R, Fu R, Dana T, Pappas M, Hart E, Mauer KM. AHRQ Comparative Effectiveness Reviews: Interventional Treatments for Acute and Chronic Pain: Systematic Review. *Interventional Treatments for Acute and Chronic Pain: Systematic Review*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2021.
7. Chou R, Loeser JD, Owens DK, Rosenquist RW, Atlas SJ, Baisden J, Carragee EJ, Grabis M, Murphy DR, Resnick DK, Stanos SP, Shaffer WO, Wall EM. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain: an evidence-based clinical practice guideline from the American Pain Society. *Spine*. 2009;34(10):1066-77.
8. Cohen SP, Bhaskar A, Bhatia A, Buvanendran A, Deer T, Garg S, Hooten WM, Hurley RW, Kennedy DJ, McLean BC, Moon JY, Narouze S, Pangarkar S, Provenzano DA, Rauck R, Sitzman BT, Smuck M, van Zundert J, Vorenkamp K, Wallace MS, Zhao Z.

Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. *Reg Anesth Pain Med.* 2020;45(6):424-67.

9. Cohen SP, Doshi TL, Constantinescu OC, Zhao Z, Kurihara C, Larkin TM, Griffith SR, Jacobs MB, Kroski WJ, Dawson TC, Fowler IM, White RL, Verdun AJ, Jamison DE, Anderson-White M, Shank SE, Pasquina PF. Effectiveness of Lumbar Facet Joint Blocks and Predictive Value before Radiofrequency Denervation: The Facet Treatment Study (FACTS), a Randomized, Controlled Clinical Trial. *Anesthesiology.* 2018;129(3):517-35.
10. Cohen SP, Hayek S, Semenov Y, Pasquina PF, White RL, Veizi E, Huang JH, Kurihara C, Zhao Z, Guthmiller KB, Griffith SR, Verdun AV, Giampetro DM, Vorobeychik Y. Epidural steroid injections, conservative treatment, or combination treatment for cervical radicular pain: a multicenter, randomized, comparative-effectiveness study. *Anesthesiology.* 2014;121(5):1045-55.
11. Conger A, Burnham TR, Clark T, Teramoto M, McCormick ZL. The Effectiveness of Intraosseous Basivertebral Nerve Radiofrequency Ablation for the Treatment of Vertebrogenic Low Back Pain: An Updated Systematic Review with Single-Arm Meta-analysis. *Pain Medicine.* 2022;23(Suppl 2):S50-S62.
12. COST B13 Working Group on Guidelines for Chronic Low Back Pain, Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Kluber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanoli G. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J.* 2006;15 Suppl 2:S192-300.
13. De Vivo AE, D'Agostino G, D'Anna G, Al Qatami H, Gil I, Ventura F, Manfre L. Intra-osseous basivertebral nerve radiofrequency ablation (BVA) for the treatment of vertebrogenic chronic low back pain. *Neuroradiology.* 2021;63(5):809-15.
14. El-Hassan R, Michalik A, Snyder J, Laplante BL, Everett C, Patel R. First-Time Lumbar Medial Branch Radiofrequency Ablation: Patient-Reported Outcomes Measurement Information System as a Metric of Outcome. *Arch Phys Med Rehabil.* 2022;103(12):2311-5.
15. Engel A, King W, Schneider BJ, Duszynski B, Bogduk N. The Effectiveness of Cervical Medial Branch Thermal Radiofrequency Neurotomy Stratified by Selection Criteria: A Systematic Review of the Literature. *Pain Medicine.* 2020;15:15.
16. Fischgrund JS, Rhyne A, Franke J, Sasso R, Kitchel S, Bae H, Yeung C, Truumees E, Schaufele M, Yuan P, Vajkoczy P, DePalma M, Anderson DG, Thibodeau L, Meyer B. 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):1146-56.
17. Fischgrund JS, Rhyne A, Franke J, Sasso R, Kitchel S, Bae H, Yeung C, Truumees E, Schaufele M, Yuan P, Vajkoczy P, Depalma M, Anderson DG, Thibodeau L, Meyer B. 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):110-9.
18. Fischgrund JS, Rhyne A, Macadaeg K, Moore G, Kamrava E, Yeung C, Truumees E, Schaufele M, Yuan P, DePalma M, Anderson DG, Buxton D, Reynolds J, Sikorsky M. 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):1925-34.
19. Han SH, Park KD, Cho KR, Park Y. Ultrasound versus fluoroscopy-guided medial branch block for the treatment of lower lumbar facet joint pain: A retrospective comparative study. *Medicine (Baltimore).* 2017;96(16):e6655.
20. Itz CJ, Willems PC, Zeilstra DJ, Huygen FJ, Dutch Society of A, Dutch Orthopedic A, Dutch Neurosurgical S. Dutch Multidisciplinary Guideline for Invasive Treatment of Pain Syndromes of the Lumbosacral Spine. *Pain pract.* 2016;16(1):90-110.
21. Janapala RN, Manchikanti L, Sanapati MR, Thota S, Abd-Elsayed A, Kaye AD, Hirsch JA. Efficacy of Radiofrequency Neurotomy in Chronic Low Back Pain: A Systematic Review and Meta-Analysis. *J Pain Res.* 2021;14:2859-91.
22. Joo YC, Park JY, Kim KH. Comparison of alcohol ablation with repeated thermal radiofrequency ablation in medial branch neurotomy for the treatment of recurrent thoracolumbar facet joint pain. *J Anesth.* 2013;27(3):390-5.
23. Juch JNS, Maas ET, Ostelo R, Groeneweg JG, Kallewaard JW, Koes BW, Verhagen AP, van Dongen JM, Huygen F, van Tulder MW. Effect of Radiofrequency Denervation on Pain Intensity Among Patients With Chronic Low Back Pain: The Mint Randomized Clinical Trials. *JAMA.* 2017;318(1):68-81.
24. Kapural L, Nageeb F, Kapural M, Cata JP, Narouze S, Mekhail N. Cooled radiofrequency system for the treatment of chronic pain from sacroiliitis: the first case-series. *Pain pract.* 2008;8(5):348-54.
25. Khalil JG, Smuck M, Koreckij T, Keel J, Beall D, Goodman B, Kalapos P, Nguyen D, Garfin S. A prospective, randomized, multicenter study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain. *Spine J.* 2019;19(10):1620-32.
26. Koreckij T, Kreiner S, Khalil JG, Smuck M, Markman J, Garfin S. Prospective, randomized, multicenter study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain: 24-Month treatment arm results. *N Am Spine Soc J.* 2021;8:100089.
27. Kreiner DS, Matz P, Bono CM, Cho CH, Easa JE, Ghiselli G, Ghogawala Z, Reitman CA, Resnick DK, Watters WC, 3rd, Annaswamy TM, Baisden J, Bartynski WS, Bess S, Brewer RP, Cassidy RC, Cheng DS, Christie SD, Chutkan NB, Cohen BA, Dagenais S, Enix DE, Dougherty P, Golish SR, Gulur P, Hwang SW, Kilincer C, King JA, Lipson AC, Lisi AJ, Meagher RJ, O'Toole JE, Park P, Pekmezci M, Perry DR, Prasad R, Provenzano DA, Radcliff KE, Rahmathulla G, Reinsel TE, Rich RL, Jr., Robbins DS, Rosolowski KA, Sembrano JN, Sharma AK, Stout AA, Taleghani CK, Tazell RA, Trammell T, Vorobeychik Y, Yahiro AM. Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of low back pain. *Spine J.* 2020;20(7):998-1024.

28. Kroll HR, Kim D, Danic MJ, Sankey SS, Gariwala M, Brown M. A randomized, double-blind, prospective study comparing the efficacy of continuous versus pulsed radiofrequency in the treatment of lumbar facet syndrome. *J Clin Anesth.* 2008;20(7):534-7.
29. Lee DG, Ahn SH, Cho YW, Do KH, Kwak SG, Chang MC. Comparison of Intra-articular Thoracic Facet Joint Steroid Injection and Thoracic Medial Branch Block for the Management of Thoracic Facet Joint Pain. *Spine.* 2018;43(2):76-80.
30. Lee DW, Pritzlaff S, Jung MJ, Ghosh P, Hagedorn JM, Tate J, Scarfo K, Strand N, Chakravarthy K, Sayed D, Deer TR, Amirdelfan K. Latest Evidence-Based Application for Radiofrequency Neurotomy (LEARN): Best Practice Guidelines from the American Society of Pain and Neuroscience (ASPN). *J Pain Res.* 2021;14:2807-31.
31. Maas ET, Ostelo RW, Niemisto L, Jousimaa J, Hurri H, Malmivaara A, van Tulder MW. Radiofrequency denervation for chronic low back pain. *Cochrane Database Syst Rev.* 2015(10):CD008572.
32. Manchikanti L, Boswell MV, Singh V, Pampati V, Damron KS, Beyer CD. Prevalence of facet joint pain in chronic spinal pain of cervical, thoracic, and lumbar regions. *BMC Musculoskelet Disord.* 2004;5:15.
33. Manchikanti L, Kaye AD, Sooin A, Albers SL, Beall D, Latchaw R, Sanapati MR, Shah S, Atluri S, Abd-Elseyed A, Abdi S, Aydin S, Bakshi S, Boswell MV, Buenaventura R, Cabaret J, Calodney AK, Candido KD, Christo PJ, Cintron L, Diwan S, Gharibo C, Grider J, Gupta M, Haney B, Harned ME, Helm li S, Jameson J, Jha S, Kaye AM, Knezevic NN, Kosanovic R, Manchikanti MV, Navani A, Racz G, Pampati V, Pasupuleti R, Philip C, Rajput K, Sehgal N, Sudarshan G, Vanaparthi R, Wargo BW, Hirsch JA. Comprehensive Evidence-Based Guidelines for Facet Joint Interventions in the Management of Chronic Spinal Pain: American Society of Interventional Pain Physicians (ASIPP) Guidelines Facet Joint Interventions 2020 Guidelines. *Pain Physician.* 2020;23(3s):S1-s127.
34. Manchikanti L, Singh V, Pampati V, Beyer CD, Damron KS. Evaluation of the prevalence of facet joint pain in chronic thoracic pain. *Pain Physician.* 2002;5(4):354-9.
35. Manchukonda R, Manchikanti KN, Cash KA, Pampati V, Manchikanti L. Facet joint pain in chronic spinal pain: an evaluation of prevalence and false-positive rate of diagnostic blocks. *J Spinal Disord Tech.* 2007;20(7):539-45.
36. McCormick ZL, Choi H, Reddy R, Syed RH, Bhave M, Kendall MC, Khan D, Nagpal G, Teramoto M, Walega DR. Randomized prospective trial of cooled versus traditional radiofrequency ablation of the medial branch nerves for the treatment of lumbar facet joint pain. *Reg Anesth Pain Med.* 2019;44(3):389-97.
37. McCormick ZL, Sperry BP, Boody BS, Hirsch JA, Conger A, Harper K, Lotz JC, Burnham TR. Pain Location and Exacerbating Activities Associated with Treatment Success Following Basivertebral Nerve Ablation: An Aggregated Cohort Study of Multicenter Prospective Clinical Trial Data. *Pain Medicine.* 2022;23(Suppl 2):S14-S33.
38. Nwosu M, Agyeman WY, Bisht A, Gopinath A, Cheema AH, Chaludiya K, Khalid M, Yu AK. The Effectiveness of Intraosseous Basivertebral Nerve Ablation in the Treatment of Nonradiating Vertebroprogenic Pain: A Systematic Review. *Cureus.* 2023;15(4):e37114.
39. Olivier TJ, Konda C, Pham T, Baltich Nelson B, Patel A, Sharma GS, Trivedi K, Annaswamy TM. Clinical Practice Guidelines on Interventional Management of Low Back Pain: A Synthesis of Recommendations. *Pm R.* 2022;12:12.
40. Park KD, Lim DJ, Lee WY, Ahn J, Park Y. Ultrasound versus fluoroscopy-guided cervical medial branch block for the treatment of chronic cervical facet joint pain: a retrospective comparative study. *Skeletal Radiol.* 2017;46(1):81-91.
41. Rohof O, Chen CK. The response to radiofrequency neurotomy of medial branches including a bipolar system for thoracic facet joints. *Scand J Pain.* 2018;18(4):747-53.
42. Stolzenberg D, Gordin V, Vorobeychik Y. Incidence of neuropathic pain after cooled radiofrequency ablation of sacral lateral branch nerves. *Pain Medicine.* 2014;15(11):1857-60.
43. Truumees E, Macadaeg K, Pena E, Arbuckle J, 2nd, Gentile J, 2nd, Funk R, Singh D, Vinayek S. A prospective, open-label, single-arm, multi-center study of intraosseous basivertebral nerve ablation for the treatment of chronic low back pain. *Eur Spine J.* 2019;28(7):1594-602.
44. van Eerd M, de Meij N, Kessels A, Patijn J, Weber W, Wintraecken V, van Kleef M, van Kuijk SMJ. Efficacy and Long-term Effect of Radiofrequency Denervation in Patients with Clinically Diagnosed Cervical Facet Joint Pain: A Double-blind Randomized Controlled Trial. *Spine.* 2021;46(5):285-93.
45. Wu T, Zhao WH, Dong Y, Song HX, Li JH. Effectiveness of Ultrasound-Guided Versus Fluoroscopy or Computed Tomography Scanning Guidance in Lumbar Facet Joint Injections in Adults With Facet Joint Syndrome: A Meta-Analysis of Controlled Trials. *Arch Phys Med Rehabil.* 2016;97(9):1558-63.
46. Ye L, Wen C, Liu H. Ultrasound-guided versus low dose computed tomography scanning guidance for lumbar facet joint injections: same accuracy and efficiency. *BMC Anesthesiol.* 2018;18(1):160.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Medical necessity reviews are initiated by submitting the correct AMA CPT codes. Specific CPT codes for services should be used when available. The submitted codes must accurately identify the service or procedure to be performed. If no such code exists, contact the health plan directly and report the service or procedure using the appropriate unlisted procedure or Not Otherwise Classified (NOC) code (which often ends in 99). Do not submit a code that is “close to” the procedure performed in lieu of an unlisted code. Correct coding demands that the code reported is appropriate for the service provided (i.e., a code that most accurately represents the service provided), and not a code that is similar but represents another service. (*CPT® Assistant*, December 2010) Nonspecific or NOC codes may be subject to additional documentation requirements and review.

CPT/HCPCS

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five-digit codes, nomenclature and other data are copyright by the American Medical Association. All Rights Reserved. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

0213T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)
0214T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; second level (List separately in addition to code for primary procedure)
0215T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)
0216T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; single level
0217T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; second level (List separately in addition to code for primary procedure)
0218T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; third and any additional level(s) (List separately in addition to code for primary procedure)
64490	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophysial) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; single level
64491	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophysial) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; second level (List separately in addition to code for primary procedure)
64492	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)
64493	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level
64494	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)
64495	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; third and any additional level(s) (List separately in addition to code for primary procedure)
64628	Thermal destruction of intraosseous basivertebral nerve, including all imaging guidance; first two vertebral bodies lumbar or sacral
64629	Thermal destruction of intraosseous basivertebral nerve, including all imaging guidance; each additional vertebral body, lumbar or sacral (list separately in addition to code for primary procedure)
64633	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, single facet joint
64634	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional facet joint (List separately in addition to code for primary procedure)
64635	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint

64636	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional facet joint (List separately in addition to code for primary procedure)
-------	---

Regional Sympathetic Nerve Block

Description

Sympathetic blockade includes procedures that temporarily obstruct the local function of the sympathetic nervous system. Anesthetic is injected directly over the sympathetic neural structures that serve affected limb(s), such as the stellate ganglion or the lumbar sympathetic chain. Radiologic guidance (fluoroscopy or CT scan) is utilized to ensure accuracy.

Regional sympathetic nerve block has been utilized primarily for treatment of complex regional pain syndrome. Despite limited evidence supporting its efficacy, it has also been investigated in treating several other pain syndromes thought to be sympathetically mediated.

This and other interventional procedures should be considered only when the full spectrum of noninvasive management strategies has not provided sufficient relief of symptoms.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Conservative management¹ should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least one complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
 - Physical therapy rendered by a qualified provider of physical therapy services
 - Supervised home treatment program that includes **ALL** of the following:
 - Participation in a patient specific or tailored program
 - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
 - Compliance (documented or by clinician attestation on follow-up evaluation)
 - Exception to the physical therapy requirement in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment** requirement includes **ANY** of the following:
 - Anti-inflammatory medications and analgesics²
 - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants²
 - Alternative therapies such as acupuncture, chiropractic manipulation, massage therapy, activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors) where applicable

¹ Additional condition- or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

² In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity: Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain that is at least 3 out of 10 in intensity and is associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging studies: All imaging must be performed and read by an independent radiologist. If discrepancies should arise in the interpretation of the imaging, the radiology report will supersede. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Procedural Requirements

Procedures must be performed with image guidance, either fluoroscopy or CT.

Complex Regional Pain Syndrome (Type I or Type II)

Diagnostic criteria for complex regional pain syndrome (CRPS) must be met:

- Continuing pain that is disproportionate to any inciting event
- At least **ONE** symptom reported in at least **THREE** (3) of the following categories:
 - Sensory: hyperesthesia or allodynia
 - Vasomotor: temperature asymmetry, skin color changes, skin color asymmetry
 - Sudomotor/Edema: edema, sweating changes, or sweating asymmetry
 - Motor/Trophic: decreased range of motion, motor dysfunction (e.g., weakness, tremor, dystonia), or trophic changes (e.g., hair, nail, skin)
- At least **ONE** sign at time of evaluation in at least **TWO** (2) of the following categories:
 - Sensory: evidence of hyperalgesia (to pinprick), allodynia (to light touch, temperature sensation, deep somatic pressure, or joint movement)
 - Vasomotor: evidence of temperature asymmetry (>1°C), skin color changes or asymmetry
 - Sudomotor/Edema: Evidence of edema, sweating changes, or sweating asymmetry
 - Motor/Trophic: evidence of decreased range of motion, motor dysfunction (e.g., weakness, tremor, dystonia), or trophic changes (e.g., hair, nail, skin)
 - No other diagnosis better explaining the signs and symptoms
- In addition, **ALL** of the following are required:

- Level of pain and disability in the moderate-to-severe range
- Failure of at least 2 weeks of conservative management
- Documentation of ongoing participation in a comprehensive pain management program
- Procedure must be performed unilaterally

The performance of an initial **diagnostic regional sympathetic block** is considered medically necessary to establish the presence or absence of sympathetically mediated complex regional pain syndrome. A positive response is defined as a significant reduction in pain (at least 80% reduction for at least the duration of the injected local anesthetic) and improvement in function with the duration of relief being consistent with agent employed, and objective evidence that the block was physiologically effective.

For procedures that target pain in a limb, there must be documentation of a rise in temperature of at least 2 degrees Celsius from baseline of the ipsilateral limb. A sensory exam is required to confirm absence of spread to adjacent nerve roots leading to a somatic sensory block.

Following a positive response to the initial diagnostic block, additional therapeutic regional sympathetic blocks, up to maximum of six (6) total blocks, performed at a frequency of no more than two (2) per week, may be considered medically necessary when **ALL** the following criteria have been met:

- Benefit has been demonstrated by prior blocks as evidenced by **ALL** of the following:
 - Decreased use of pain medication
 - Improved level of function (e.g., increased range of motion, strength, and use of extremity in activities of daily living)
 - Improved tolerance to touch (e.g., decreased allodynia) or other objective measures
- The intervention is being provided as part of a comprehensive pain management program (physical therapy, patient education, psychosocial support, and oral medication)
- Maximum six (6) blocks per lifetime

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to the following:

- Use of sympathetic block CPT code for blocks other than stellate ganglion block and lumbar sympathetic block (e.g., ganglion impar block)
- Only one unilateral sympathetic block per session (stellate ganglion block cannot be performed on same day as lumbar sympathetic block)

References

1. Harden RN, Oaklander AL, Burton AW, Perez RS, Richardson K, Swan M, Barthel J, Costa B, Graciosa JR, Bruehl S; Reflex Sympathetic Dystrophy Syndrome Association. Complex regional pain syndrome: practical diagnostic and treatment guidelines, 4th edition. *Pain Med.* 2013 Feb;14(2):180-229.
2. O'Connell NEW, B. M.; Gibson, W., et al. Local anaesthetic sympathetic blockade for complex regional pain syndrome. *Cochrane Database Syst Rev.* 2016;7:CD004598.
3. Wie C, Gupta R, Maloney J, Pew S, Freeman J, Strand N. Interventional Modalities to Treat Complex Regional Pain Syndrome. *Curr Pain Headache Rep.* 2021;25(2):10.
4. Zernikow BW, J.; Brehmer, H.; Hirschfeld, G.; Maier, C. Invasive treatments for complex regional pain syndrome in children and adolescents: a scoping review. *Anesthesiology.* 2015;122(3):699-707.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Medical necessity reviews are initiated by submitting the correct AMA CPT codes. Specific CPT codes for services should be used when available. The submitted codes must accurately identify the service or procedure to be performed. If no such code exists, contact the health plan directly and report the service or procedure using the appropriate unlisted procedure or Not Otherwise Classified (NOC) code (which often ends in 99). Do not submit a code that is “close to” the procedure performed in lieu of an unlisted code. Correct coding demands that the code reported is appropriate for the service provided (i.e., a code that most accurately represents the service provided), and not a code that is similar but represents another service. (*CPT® Assistant*, December 2010) Nonspecific or NOC codes may be subject to additional documentation requirements and review.

CPT/HCPCS

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five-digit codes, nomenclature and other data are copyright by the American Medical Association. All Rights Reserved. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

64510	Injection, anesthetic agent; stellate ganglion (cervical sympathetic)
64520	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)

Sacroiliac Joint Injection

Description

Noninflammatory sacroiliac (SI) joint complex pain may be traumatic, degenerative, or due to adjacent segment disease (after lumbar fusion or total hip replacement). Sacroiliitis is associated with inflammatory spondyloarthropathies. Pain arising from the sacroiliac joint complex typically radiates to the gluteal area and posterior hip. In addition to localized tenderness over the sacroiliac joint, there are additional examination maneuvers which suggest the diagnosis.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Conservative management¹ should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least one complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
 - Physical therapy rendered by a qualified provider of physical therapy services
 - Supervised home treatment program that includes **ALL** of the following:
 - Participation in a patient specific or tailored program
 - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
 - Compliance (documented or by clinician attestation on follow-up evaluation)
 - Exception to the physical therapy requirement in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative management requirement** includes **ANY** of the following:
 - Complementary alternative medicine including, but not limited to, chiropractic care, acupuncture, cognitive behavioral or massage therapy
 - Anti-inflammatory medications and analgesics
- **Complementary conservative treatment requirement** includes **ANY** of the following:
 - Anti-inflammatory medications and analgesics²
 - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants²
 - Alternative therapies such as acupuncture, chiropractic manipulation, massage therapy, activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors) where applicable

¹ Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

² In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity: Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain that is at least 3 out of 10 in intensity and is associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging studies: All imaging must be performed and read by an independent radiologist. If discrepancies should arise in the interpretation of the imaging, the radiology report will supersede. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Patient Requirements

Patients must meet **ALL** of the following criteria to be able to proceed with diagnostic intra-articular sacroiliac joint injections or therapeutic intra-articular sacroiliac joint injections.

- There is persistent typically unilateral non-radicular pain that is predominantly below the lumbar spine (L5) and is primarily localized over the region of the sacroiliac joint and has been present for at least 3 months
- Examination shows localized tenderness with palpation over the sacral sulcus just inferior to the posterior superior iliac spine (PSIS) in the absence of tenderness of equal severity elsewhere (e.g., lumbar spine, greater trochanter, hip, coccyx)
- At least **ONE** of the following provocative tests is positive: pelvic distraction test, lateral iliac compression test, sacral compression/thrust test, thigh thrust test, FABER (Patrick's test), and Gaenslen's test
- There is no evidence of acute or subacute radicular pain/radiculopathy or neurogenic claudication. If there is evidence of radicular pain/radiculopathy or neurogenic claudication, the condition must be addressed, stable and have been maximally optimized through comprehensive treatment prior to sacroiliac joint interventions
- Lack of adequate improvement following 6 weeks of conservative management

Procedural Requirements

Procedures must be performed with image guidance, either fluoroscopy or CT with contrast, to confirm intra-articular placement. Procedures may be performed without contrast if there is a documented contrast allergy.

Sacroiliac Joint Injections

Diagnostic intraarticular sacroiliac joint injections

The primary utility of diagnostic intraarticular sacroiliac joint injections (anesthetic only) is to determine if the sacroiliac joint is the primary pain generator for the patient's low back pain in anticipation of a planned surgical fusion of the sacroiliac joint only. *The patient's pain level should be obtained prior to injection to accurately determine response. If there are provocative activities associated with the patient's pain, the individual can engage in such activities prior to and after the injection to aid in diagnosis.*

- A second confirmatory injection is considered medically necessary only if the first injection produces at least 75% relief of the primary (index) pain and the onset and minimum duration of relief is consistent with the local anesthetic agent employed. This confirmatory block confirms the tested sacroiliac joint as the source if the index pain is reduced by at least 75% and the onset and minimum duration of relief is consistent with the local anesthetic agent employed.
- Anesthetic volume must be limited to 1.5 cc to maximize the anatomic specificity of the procedure. Concurrent injection of steroid is not appropriate for diagnostic sacroiliac joint injection.* Concurrent injection in any other areas of the spine is also not appropriate for the same reason.
- On the day of the procedure, the patient's pain must be at least 3 out of 10 in severity at rest or during a consistently provocative maneuver, which will allow accurate monitoring of the response to the injection.
- A maximum of only 2 diagnostic unilateral (same side) intraarticular injections given on two separate occasions are appropriate and medically necessary for the determination of the patient's candidacy for surgical fusion (see above).

Therapeutic intraarticular sacroiliac joint injections

- Therapeutic intraarticular sacroiliac joint injections are performed with the use of corticosteroid with or without the use of anesthetic only.
- Total injection volume should be limited to 2.5 cc to minimize extra-articular spread of the injectate outside of the sacroiliac joint

Note: Patients who undergo SI joint injections of both local anesthetic and corticosteroid should have documented a biphasic response—immediate from the anesthetic and delayed from the steroid. **If steroid is administered, patients should be asked to keep a meticulous pain diary for the first 24 hours.*

Repeat therapeutic intraarticular sacroiliac joint injections

An injection is considered a repeat injection if the last injection was performed within the previous 12 months. If 12 months or more have elapsed, it is considered a new (initial) injection.

- Repeat injection is considered medically necessary if symptoms recur and the patient has demonstrated at least 50% pain relief, and improvement in patient-specific ADLs, for at least 3 months after a previous injection. A repeat physical examination must confirm the source of pain as sacroiliac joint as defined in the initial injection requirements.
- Injections may not be repeated at intervals of less than 3 months, with a maximum of four (4) injections in a 12-month period. Repeat injections are allowed only if prior injection provided at least 3 months of pain relief ($\geq 50\%$).
- Treatment with therapeutic injections should be accompanied by participation in an ongoing active rehabilitation program, home exercise program, or functional restoration program.

Ultrasound guidance

- Ultrasound is the only imaging guidance appropriate for use during pregnancy.

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Intraarticular sacroiliac joint injections performed on the same day as other spine injection procedures
- Use of any substance other than corticosteroid (with or without local anesthetic) for therapeutic intra-articular sacroiliac joint injection (i.e., biologics, platelet-rich plasma [PRP], botulinum toxin [Botox®], etc).
- Therapeutic intra/periarticular sacroiliac joint injections in a previously fused sacroiliac joint
- Use of corticosteroid with diagnostic intraarticular sacroiliac joint injections (only local anesthetic allowed for diagnostic sacroiliac joint injection)
- Diagnostic or therapeutic sacral lateral branch blocks
 - Injection of local anesthetic alone for diagnostic purposes or anesthetic and steroid for therapeutic purposes into the sacral lateral branches innervating the sacroiliac joint
- Radiofrequency ablation sacral lateral branch by any method

References

1. Chou R, Loeser JD, Owens DK, Rosenquist RW, Atlas SJ, Baisden J, Carragee EJ, Grabois M, Murphy DR, Resnick DK, Stanos SP, Shaffer WO, Wall EM. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain: an evidence-based clinical practice guideline from the American Pain Society. *Spine*. 2009;34(10):1066-77.
2. Cohen SP, Doshi TL, Kurihara C, Reece D, Dolomisiewicz E, Phillips CR, Dawson T, Jamison D, Young R, Pasquina PF. Multicenter study evaluating factors associated with treatment outcome for low back pain injections. *Reg Anesth Pain Med*. 2022;47(2):89-99.
3. COST B13 Working Group on Guidelines for Chronic Low Back Pain, Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanolli G. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J*. 2006;15 Suppl 2:S192-300.
4. De Luigi AJ, Saini V, Mathur R, Saini A, Yokel N. Assessing the Accuracy of Ultrasound Guided Needle Placement in Sacroiliac Joint Injections. *Am J Phys Med Rehabil*. 2019;26:26.
5. Hansen H, Manchikanti L, Simopoulos TT, Christo PJ, Gupta S, Smith HS, Hameed H, Cohen SP. A systematic evaluation of the therapeutic effectiveness of sacroiliac joint interventions. *Pain Physician*. 2012;15(3):E247-78.
6. Soneji N, Bhatia A, Seib R, Tumber P, Dissanayake M, Peng PW. Comparison of Fluoroscopy and Ultrasound Guidance for Sacroiliac Joint Injection in Patients with Chronic Low Back Pain. *Pain Pract*. 2016;16(5):537-44.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Medical necessity reviews are initiated by submitting the correct AMA CPT codes. Specific CPT codes for services should be used when available. The submitted codes must accurately identify the service or procedure to be performed. If no such code exists, contact the health plan directly and report the service or procedure using the appropriate unlisted procedure or Not Otherwise Classified (NOC) code (which often ends in 99). Do not submit a code that is “close to” the procedure performed in lieu of an unlisted code. Correct coding demands that the code reported is appropriate for the service provided (i.e., a code that most accurately represents the service provided), and not a code that is similar but represents another service. (*CPT® Assistant*, December 2010) Nonspecific or NOC codes may be subject to additional documentation requirements and review.

CPT/HCPCS

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five-digit codes, nomenclature and other data are copyright by the American Medical Association. All Rights Reserved. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

27096	Injection procedure for sacroiliac joint, anesthetic/steroid, with image guidance (fluoroscopy or CT) including arthrography when performed
64451	Injection(s), anesthetic agent(s) and/or steroid; nerves innervating the sacroiliac joint, with image guidance (i.e. fluoroscopy or computed tomography)
64625	Radiofrequency ablation, nerves innervating the sacroiliac joint, with image guidance (ie, fluoroscopy or computed tomography)
G0260	Injection procedure for sacroiliac joint; provision of anesthetic, steroid and/or other therapeutic agent, with or without arthrography

Spinal Cord and Dorsal Root Ganglion Stimulators

Description

Spinal cord stimulators, also known as dorsal column stimulators (“stimulators”), are implantable devices used to treat chronic pain. Electrodes are surgically placed within the dura mater via laminectomy, or by percutaneous insertion into the epidural space. Low voltage electrical signals are delivered to the dorsal column of the spinal cord in order to override or mask sensations of pain.

The patient’s pain distribution pattern determines the level at which the stimulation lead is placed. The lead may incorporate 4 to 8 electrodes, with 8 electrodes typically used for complex pain patterns, such as bilateral pain or pain extending from the limbs to the trunk or pain affecting multiple nerve roots.

Implantation is typically a two-step process. Initially, the electrode is temporarily implanted in the epidural space, allowing a trial period of stimulation. Once treatment effectiveness is confirmed (defined as at least 50% reduction in pain), the electrodes and radio receiver/transducer are permanently implanted.

Extensive programming of the neurostimulators is often required to achieve optimal pain control.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Conservative management¹ should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least one complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
 - Physical therapy rendered by a qualified provider of physical therapy services
 - Supervised home treatment program that includes **ALL** of the following:
 - Participation in a patient specific or tailored program
 - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
 - Compliance (documented or by clinician attestation on follow-up evaluation)
 - Exception to the physical therapy requirement in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment** requirement includes **ANY** of the following:
 - Anti-inflammatory medications and analgesics²
 - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants²

- Alternative therapies such as acupuncture, chiropractic manipulation, massage therapy, activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors) where applicable
- **Interventional modalities**
 - Minimally invasive interventional pain procedures such as epidural injections, facet joint procedures, and sympathetic blocks as appropriate

¹ Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

² In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity: Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain that is at least 3 out of 10 in intensity and is associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging studies: All imaging must be performed and read by an independent radiologist. If discrepancies should arise in the interpretation of the imaging, the radiology report will supersede. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Spinal Cord Stimulation

Spinal cord stimulation (including burst, high frequency, and traditional stimulation methods)

Stimulator Trial

Stimulator trial may be considered medically necessary when **ALL** of the following criteria are met:

- The patient has chronic intractable neuropathic pain of the trunk and/or limbs associated with at least **ONE** of the following conditions:
 - **Lumbosacral arachnoiditis** as documented by high levels of protein in the cerebrospinal fluid and/or imaging (MRI or myelography)
 - **Nerve root injuries** that are post-surgical after a spine surgery (e.g., failed back surgery syndrome [FBSS])
 - **Complex regional pain syndrome (CRPS)**, type I or type II (formerly known as reflex sympathetic dystrophy or causalgia) which meets diagnostic criteria for CRPS (as per Budapest criteria) as outlined in Regional Sympathetic Nerve Blocks
 - **Painful diabetic neuropathy (PDN)** when **ALL** of the following criteria are met:
 - Evidence of painful PDN of at least 12 months
 - Lower limb pain intensity of ≥ 5 on the VAS scale

- Objective evidence for presence of neuropathy and severity: moderate-severe neuropathy on EMG/NCS (electromyography/nerve conduction studies)
 - Confirmation of PDN diagnosis by at least one other specialist (e.g., neurologist)
 - BMI \leq 35
 - HbA1c \leq 10%
 - Daily morphine equivalents of 120 mg or less
 - Documented medical clearance as candidate for the procedure
 - Other causes of neuropathy have been ruled out
 - Optimization of medical management (i.e., diabetes, inflammatory/infectious, vitamin/nutritional deficiencies, renal failure, possible Rx drug/iatrogenic, exposure to toxins)
 - Failed trial (or documented intolerance) to multiple pharmacologic agents in at least 2 categories (i.e., antidepressants like duloxetine [Cymbalta], anticonvulsants like gabapentin/pregabalin, topicals like capsaicin, etc.)
 - Absence of upper limb pain intensity of \geq 3 on a VAS scale
- Severe pain and disability with documented pathology or an objective basis for the pain
 - Dorsal column stimulation is being used as a late or last resort after documented failure of at least 6 consecutive months of physician-supervised multimodal conservative management
 - Failed trial of regional sympathetic blocks in the case of CRPS
 - There is no evidence of existing untreated drug addiction
 - The patient has been evaluated by a pain management specialist prior to implantation
 - All the facilities, equipment, and professional and support personnel required for the proper diagnosis, treatment training, and follow-up of the patient must be available
 - At least one surgical opinion has been obtained to ensure that the patient does not have a surgically correctable lesion (excludes CRPS and PDN)
 - Documentation of an evaluation by a licensed mental health provider within 6 months of a stimulator trial request (e.g., a face-to-face assessment with or without psychological questionnaires and/or psychological testing) that confirms no evidence of an inadequately controlled mental health problem (e.g., alcohol or drug dependence, depression, psychosis) that would negatively impact the success of a spinal cord stimulator or contraindicate its placement

A repeat trial is **not medically necessary** if the initial trial failed, unless failure was due to inability to guide the percutaneous stimulator lead to the appropriate level secondary to anatomical abnormalities. In such cases a surgically placed paddle lead may be appropriate.

Spinal cord stimulator trial must be performed with percutaneously placed leads except under certain situations (e.g., a prior fusion or narrow spinal canal complicates a percutaneous lead placement).

Stimulator Implantation (Permanent)

Stimulator implantation (permanent) may be considered medically necessary when **ALL** of the following criteria are met:

- The patient meets **ALL** of the criteria for a stimulator trial
- A stimulator trial of at least 3 days duration has been performed
- Documented pain reduction and functional improvement following the stimulator trial with at least a 50% reduction of target pain or analgesic medication use, and specific evidence of improved function

Stimulator Revision or Removal

Stimulator revision or removal may be considered medically necessary when **ANY** of the following criteria are met:

- Stimulator hardware complication including
 - Lead migration
 - Infection
 - Painful generator site
- Stimulator response complications including
 - Loss of effectiveness
 - Patient intolerance
 - Development of new neurologic deficits
- Planned procedure where stimulators may be contraindicated including
 - Magnetic resonance imaging when other indicated tests have been shown to be inconclusive (such as a CT-myelogram, EMG/NCS, plain x-rays with multiple views)
 - Automatic implantable cardioverter defibrillator

Dorsal Root Ganglion Stimulation

Dorsal root ganglion (DRG) stimulation may be considered medically necessary as an alternative to dorsal column stimulation in patients with moderate-to-severe chronic intractable pain of the lower limbs from CRPS types I or II and who otherwise meet above criteria for spinal cord stimulator trial or implantation.

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to the following:

- Use of spinal cord stimulation for the treatment of critical limb ischemia to forestall amputation, refractory angina pectoris, heart failure, and cancer-related pain
- Repeat trial of spinal cord stimulation if the initial trial failed
- Replacement of a conventional spinal cord stimulator with a burst, high frequency, or dorsal root ganglion stimulator in the absence of an indication for stimulator removal
- Dorsal root ganglion neurostimulation for any non-CRPS lower extremity indication
- Dorsal root ganglion neurostimulation in patients with CRPS lower extremity who currently have a functioning spinal cord stimulator or who have previously failed spinal cord stimulation therapy
- Simultaneous placement of a dorsal column and dorsal root ganglion stimulator
- Chronic, nonsurgical low back pain with or without a neuropathic component in patients with no history of prior lumbar spine surgery

References

1. Al-Kaisy A, Palmisani S, Pang D, Sanderson K, Wesley S, Tan Y, McCammon S, Trescott A. Prospective, Randomized, Sham-Control, Double Blind, Crossover Trial of Subthreshold Spinal Cord Stimulation at Various Kilohertz Frequencies in Subjects Suffering From Failed Back Surgery Syndrome (SCS Frequency Study). *Neuromodulation*. 2018;21(5):457-65.

2. Al-Kaisy A, Van Buyten JP, Smet I, Palmisani S, Pang D, Smith T. Sustained effectiveness of 10 kHz high-frequency spinal cord stimulation for patients with chronic, low back pain: 24-month results of a prospective multicenter study. *Pain Medicine*. 2014;15(3):347-54.
3. Amirdehlan K, Yu C, Doust MW, Gliner BE, Morgan DM, Kapural L, Vallejo R, Sitzman BT, Yearwood TL, Bundschu R, Yang T, Benyamin R, Burgher AH, Brooks ES, Powell AA, Subbaroyan J. Long-term quality of life improvement for chronic intractable back and leg pain patients using spinal cord stimulation: 12-month results from the SENZA-RCT. *Qual Life Res*. 2018;27(8):2035-44.
4. Bicket MC, Dunn RY, Ahmed SU. High-Frequency Spinal Cord Stimulation for Chronic Pain: Pre-Clinical Overview and Systematic Review of Controlled Trials. *Pain Medicine*. 2016;17(12):2326-36.
5. Bolash R, Creamer M, Rauck R, Vahedifar P, Calodney A, Fox I, Ozaktay C, Panchal S, Vanquathem N, Yasin M. Wireless High-Frequency Spinal Cord Stimulation (10 kHz) Compared with Multiwaveform Low-Frequency Spinal Cord Stimulation in the Management of Chronic Pain in Failed Back Surgery Syndrome Subjects: Preliminary Results of a Multicenter, Prospective Randomized Controlled Study. *Pain Med*. 2019;25:25.
6. Brazilian Medical A, Brazilian Society of N, Cukiert A, Reis AMD, Almeida AS, Simoes RDS, Buzzini RF, Bernardo WM. Chronic pain treatment with spinal cord neurostimulation. *Rev Assoc Med Bras*. 2018;64(4):299-306.
7. Canos-Verdecho A, Abejon D, Robledo R, Izquierdo R, Bermejo A, Gallach E, Argente P, Peraita-Costa I, Morales-Suarez-Varela M. Randomized Prospective Study in Patients With Complex Regional Pain Syndrome of the Upper Limb With High-Frequency Spinal Cord Stimulation (10-kHz) and Low-Frequency Spinal Cord Stimulation. *Neuromodulation*. 2021;18:18.
8. Chakravarthy K, Malayil R, Kerketeig T, Deer T. Burst Spinal Cord Stimulation: A Systematic Review and Pooled Analysis of Real-World Evidence and Outcomes Data. *Pain Med*. 2019;20(Supplement_1):S47-S57.
9. Chang Chien GC, Mekhail N. Alternate Intraspinal Targets for Spinal Cord Stimulation: A Systematic Review. *Neuromodulation*. 2017;20(7):629-41.
10. Chen JL, Hesseltine AW, Nashi SE, Sills SM, McJunkin TL, Patil S, Bharara M, Caraway DL, Brooks ES. A Real-World Analysis of High-Frequency 10 kHz Spinal Cord Stimulation for the Treatment of Painful Diabetic Peripheral Neuropathy. *J Diabetes Sci Technol*. 2022;16(2):282-8.
11. Chou R, Loeser JD, Owens DK, Rosenquist RW, Atlas SJ, Baisden J, Carragee EJ, Grabois M, Murphy DR, Resnick DK, Stanos SP, Shaffer WO, Wall EM. Interventional therapies, surgery, and interdisciplinary rehabilitation for low back pain: an evidence-based clinical practice guideline from the American Pain Society. *Spine*. 2009;34(10):1066-77.
12. Conger A, Sperry BP, Cheney CW, Burnham TM, Mahan MA, Onofrei LV, Cushman DM, Wagner GE, Shipman H, Teramoto M, McCormick ZL. The Effectiveness of Spinal Cord Stimulation for the Treatment of Axial Low Back Pain: A Systematic Review with Narrative Synthesis. *Pain Med*. 2020;29:29.
13. COST B13 Working Group on Guidelines for Chronic Low Back Pain, Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanoli G. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J*. 2006;15 Suppl 2:S192-300.
14. De Andres J, Monsalve-Dolz V, Fabregat-Cid G, Villanueva-Perez V, Harutyunyan A, Asensio-Samper JM, Sanchis-Lopez N. Prospective, Randomized Blind Effect-on-Outcome Study of Conventional vs High-Frequency Spinal Cord Stimulation in Patients with Pain and Disability Due to Failed Back Surgery Syndrome. *Pain Med*. 2017;18(12):2401-21.
15. De M, Mohan VK, Bhoi D, Talawar P, Kumar A, Garg B, Trikha A, Dehnan M, Kashyap L, Shende DR. Transforaminal Epidural Injection of Local Anesthetic and Dorsal Root Ganglion Pulsed Radiofrequency Treatment in Lumbar Radicular Pain: A Randomized, Triple-Blind, Active-Control Trial. *Pain pract*. 2020;20(2):154-67.
16. De Ridder D, Plazier M, Kamerling N, Menovsky T, Vanneste S. Burst spinal cord stimulation for limb and back pain. *World Neurosurg*. 2013;80(5):642-9.e1.
17. de Vos CC, Meier K, Zaalberg PB, Nijhuis HJ, Duyvendak W, Vesper J, Enggaard TP, Lenders MW. Spinal cord stimulation in patients with painful diabetic neuropathy: a multicentre randomized clinical trial. *Pain*. 2014;155(11):2426-31.
18. Deer T, Pope J, Hunter C, Falowski S, Kapural L, Kramer J, Levy R. Safety Analysis of Dorsal Root Ganglion Stimulation in the Treatment of Chronic Pain. *Neuromodulation*. 2019;12:12.
19. Deer T, Slavin KV, Amirdehlan K, North RB, Burton AW, Yearwood TL, Tavel E, Staats P, Falowski S, Pope J, Justiz R, Fabi AY, Taghva A, Paicius R, Houden T, Wilson D. Success Using Neuromodulation With BURST (SUNBURST) Study: Results From a Prospective, Randomized Controlled Trial Using a Novel Burst Waveform. *Neuromodulation*. 2018;21(1):56-66.
20. Deer TR, Grider JS, Lamer TJ, Pope JE, Falowski S, Hunter CW, Provenzano DA, Slavin KV, Russo M, Carayannopoulos A, Shah JM, Harned ME, Hagedorn JM, Bolash RB, Arle JE, Kapural L, Amirdehlan K, Jain S, Liem L, Carlson JD, Malinowski MN, Bendel M, Yang A, Aiyer R, Valimahomed A, Antony A, Craig J, Fishman MA, Al-Kaisy AA, Christelis N, Rosenquist RW, Levy RM, Mekhail N. A Systematic Literature Review of Spine Neurostimulation Therapies for the Treatment of Pain. *Pain Med*. 2020;21(7):1421-32.
21. Deer TR, Hunter CW, Mehta P, Sayed D, Grider JS, Lamer TJ, Pope JE, Falowski S, Provenzano DA, Esposito MF, Slavin KV, Baranidharan G, Russo M, Jassal NS, Mogilner AY, Kapural L, Verrills P, Amirdehlan K, McRoberts WP, Harned ME, Chapman KB, Liem L, Carlson JD, Yang A, Aiyer R, Antony A, Fishman MA, Al-Kaisy AA, Christelis N, Levy RM, Mekhail N. A Systematic Literature Review of Dorsal Root Ganglion Neurostimulation for the Treatment of Pain. *Pain Med*. 2020;21(8):1581-9.

22. Deer TR, Levy RM, Kramer J, Poree L, Amirdelfan K, Grigsby E, Staats P, Burton AW, Burgher AH, O Bray J, Scowcroft J, Golovac S, Kapural L, Paicius R, Kim C, Pope J, Yearwood T, Samuel S, McRoberts WP, Cassim H, Nethererton M, Miller N, Schaufele M, Tavel E, Davis T, Davis K, Johnson L, Mekhail N. Dorsal root ganglion stimulation yielded higher treatment success rate for complex regional pain syndrome and causalgia at 3 and 12 months: a randomized comparative trial. *Pain*. 2017;158(4):669-81.
23. Deer TR, Pope JE, Lamer TJ, Grider JS, Provenzano D, Lubenow TR, FitzGerald JJ, Hunter C, Falowski S, Sayed D, Baranidharan G, Patel NK, Davis T, Green A, Pajuelo A, Epstein LJ, Harned M, Liem L, Christo PJ, Chakravarthy K, Gilmore C, Huygen F, Lee E, Metha P, Nijhuis H, Patterson DG, Petersen E, Pilitsis JG, Rowe JJ, Rupert MP, Skaribas I, Sweet J, Verrills P, Wilson D, Levy RM, Mekhail N. The Neuromodulation Appropriateness Consensus Committee on Best Practices for Dorsal Root Ganglion Stimulation. *Neuromodulation*. 2019;22(1):1-35.
24. D'Souza RS, Barman R, Joseph A, Abd-Elseyed A. Evidence-Based Treatment of Painful Diabetic Neuropathy: a Systematic Review. *Curr Pain Headache Rep*. 2022;26(8):583-94.
25. D'Souza RS, Langford B, Dombovy-Johnson M, Abd-Elseyed A. Neuromodulation Interventions for the Treatment of Painful Diabetic Neuropathy: a Systematic Review. *Curr Pain Headache Rep*. 2022;26(5):365-77.
26. Duarte RV, Nevitt S, McNicol E, Taylor RS, Buchser E, North RB, Eldabe S. Systematic review and meta-analysis of placebo/sham controlled randomised trials of spinal cord stimulation for neuropathic pain. *Pain*. 2020;161(1):24-35.
27. Duong S, Bravo D, Todd KJ, Finlayson RJ, Tran Q. Treatment of complex regional pain syndrome: an updated systematic review and narrative synthesis. *Can J Anaesth*. 2018;65(6):658-84.
28. Duse G, Reverberi C, Dario A. Effects of Multiple Waveforms on Patient Preferences and Clinical Outcomes in Patients Treated With Spinal Cord Stimulation for Leg and/or Back Pain. *Neuromodulation*. 2019;22(2):200-7.
29. Eldabe S, Duarte R, Gulve A, Williams H, Garner F, Brookes M, Madzinga G, Buchser E, Batterham AM. Analgesic Efficacy of "Burst" and Tonic (500 Hz) Spinal Cord Stimulation Patterns: A Randomized Placebo-Controlled Crossover Study. *Neuromodulation*. 2020;29:29.
30. Galafassi GZ, Simm Pires de Aguiar PH, Simm RF, Franceschini PR, Filho MP, Pagura JR, Pires de Aguiar PH. Neuromodulation for Medically Refractory Neuropathic Pain: Spinal Cord Stimulation, Deep Brain Stimulation, Motor Cortex Stimulation, and Posterior Insula Stimulation. *World Neurosurg*. 2021;146:246-60.
31. Head J, Jacob M, Sabourin V, Turpin J, Hoelscher C, Wu C, Sharan A. Waves of Pain Relief: A Systematic Review of Clinical Trials in Spinal Cord Stimulation Waveforms for the Treatment of Chronic Neuropathic Low-Back and Leg Pain. *World Neurosurg*. 2019;29:29.
32. Hofmeister M, Memedovich A, Brown S, Saini M, Dowsett LE, Lorenzetti DL, McCarron TL, MacKean G, Clement F. Effectiveness of Neurostimulation Technologies for the Management of Chronic Pain: A Systematic Review. *Neuromodulation*. 2019;16:16.
33. Kapural L, Yu C, Doust MW, Gliner BE, Vallejo R, Sitzman BT, Amirdelfan K, Morgan DM, Brown LL, Yearwood TL, Bundschu R, Burton AW, Yang T, Benyamin R, Burgher AH. Novel 10-kHz High-frequency Therapy (HF10 Therapy) Is Superior to Traditional Low-frequency Spinal Cord Stimulation for the Treatment of Chronic Back and Leg Pain: The SENZA-RCT Randomized Controlled Trial. *Anesthesiology*. 2015;123(4):851-60.
34. Kapural L, Yu C, Doust MW, Gliner BE, Vallejo R, Sitzman BT, Amirdelfan K, Morgan DM, Yearwood TL, Bundschu R, Yang T, Benyamin R, Burgher AH. Comparison of 10-kHz High-Frequency and Traditional Low-Frequency Spinal Cord Stimulation for the Treatment of Chronic Back and Leg Pain: 24-Month Results From a Multicenter, Randomized, Controlled Pivotal Trial. *Neurosurgery*. 2016;79(5):667-77.
35. Karri J, Joshi M, Polson G, Tang T, Lee M, Orhurhu V, Deer T, Abd-Elseyed A. Spinal Cord Stimulation for Chronic Pain Syndromes: A Review of Considerations in Practice Management. *Pain Physician*. 2020;23(6):599-616.
36. Karri J, Orhurhu V, Wahezi S, Tang T, Deer T, Abd-Elseyed A. Comparison of Spinal Cord Stimulation Waveforms for Treating Chronic Low Back Pain: Systematic Review and Meta-Analysis. *Pain Physician*. 2020;23(5):451-60.
37. Koh W, Choi SS, Karm MH, Suh JH, Leem JG, Lee JD, Kim YK, Shin J. Treatment of chronic lumbosacral radicular pain using adjuvant pulsed radiofrequency: a randomized controlled study. *Pain Med*. 2015;16(3):432-41.
38. Kriek N, Groeneweg JG, Stronks DL, de Ridder D, Huygen FJ. Preferred frequencies and waveforms for spinal cord stimulation in patients with complex regional pain syndrome: A multicentre, double-blind, randomized and placebo-controlled crossover trial. *Eur J Pain*. 2017;21(3):507-19.
39. Kwak SG, Lee DG, Chang MC. Effectiveness of pulsed radiofrequency treatment on cervical radicular pain: A meta-analysis. *Medicine (Baltimore)*. 2018;97(31):e11761.
40. Lamer TJ, Moeschler SM, Gazelka HM, Hooten WM, Bendel MA, Murad MH. Spinal Stimulation for the Treatment of Intractable Spine and Limb Pain: A Systematic Review of RCTs and Meta-Analysis. *Mayo Clin Proc*. 2019;94(8):1475-87.
41. Levy RM, Mekhail N, Kramer J, Poree L, Amirdelfan K, Grigsby E, Staats P, Burton AW, Burgher AH, Scowcroft J, Golovac S, Kapural L, Paicius R, Pope J, Samuel S, McRoberts WP, Schaufele M, Kent AR, Raza A, Deer TR. Therapy Habituation at 12 Months: Spinal Cord Stimulation Versus Dorsal Root Ganglion Stimulation for Complex Regional Pain Syndrome Type I and II. *J Pain*. 2020;21(3-4):399-408.

42. Lewis RA, Williams NH, Sutton AJ, Burton K, Din NU, Matar HE, Hendry M, Phillips CJ, Nafees S, Fitzsimmons D, Rickard I, Wilkinson C. Comparative clinical effectiveness of management strategies for sciatica: systematic review and network meta-analyses. *Spine J.* 2015;15(6):1461-77.
43. Liem L, Russo M, Huygen FJ, Van Buyten JP, Smet I, Verrills P, Cousins M, Brooker C, Levy R, Deer T, Kramer J. A multicenter, prospective trial to assess the safety and performance of the spinal modulation dorsal root ganglion neurostimulator system in the treatment of chronic pain. *Neuromodulation.* 2013;16(5):471-82; discussion 82.
44. Liem L, Russo M, Huygen FJ, Van Buyten JP, Smet I, Verrills P, Cousins M, Brooker C, Levy R, Deer T, Kramer J. One-year outcomes of spinal cord stimulation of the dorsal root ganglion in the treatment of chronic neuropathic pain. *Neuromodulation.* 2015;18(1):41-8; discussion 8-9.
45. Manchikanti L, Abdi S, Atluri S, Benyamin RM, Boswell MV, Buenaventura RM, Bryce DA, Burks PA, Caraway DL, Calodney AK, Cash KA, Christo PJ, Cohen SP, Colson J, Conn A, Corder H, Coubarous S, Datta S, Deer TR, Diwan S, Falco FJ, Fellows B, Geffert S, Grider JS, Gupta S, Hameed H, Hameed M, Hansen H, Helm S, 2nd, Janata JW, Justiz R, Kaye AD, Lee M, Manchikanti KN, McManus CD, Onyewu O, Parr AT, Patel VB, Racz GB, Sehgal N, Sharma ML, Simopoulos TT, Singh V, Smith HS, Snook LT, Swicegood JR, Vallejo R, Ward SP, Wargo BW, Zhu J, Hirsch JA. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician.* 2013;16(2 Suppl):S49-283.
46. Mekhail N, Visnjevac O, Azer G, Mehanny DS, Agrawal P, Foorsov V. Spinal Cord Stimulation 50 Years Later: Clinical Outcomes of Spinal Cord Stimulation Based on Randomized Clinical Trials-A Systematic Review. *Reg Anesth Pain Med.* 2018;43(4):391-406.
47. Mol FMU, Roumen RM, Scheltinga MR. Comparing the efficacy of targeted spinal cord stimulation (SCS) of the dorsal root ganglion with conventional medical management (CMM) in patients with chronic post-surgical inguinal pain: the SMASHING trial. *BMC Surg.* 2018;18(1):18.
48. Muhammad S, Roeske S, Chaudhry SR, Kiefe TM. Burst or High-Frequency (10 kHz) Spinal Cord Stimulation in Failed Back Surgery Syndrome Patients With Predominant Back Pain: One Year Comparative Data. *Neuromodulation.* 2017;20(7):661-7.
49. Nagpal A, Clements N, Duszynski B, Boies B. The Effectiveness of Dorsal Root Ganglion Neurostimulation for the Treatment of Chronic Pelvic Pain and Chronic Neuropathic Pain of the Lower Extremity: A Comprehensive Review of the Published Data. *Pain Med.* 2021;22(1):49-59.
50. North J, Loudermilk E, Lee A, Sachdeva H, Kaiafas D, Washabaugh E, Sheth S, Scowcroft J, Mekhail N, Lampert B, Yearwood T, Shaw E, Atallah J, McLeod C, Han J, Yu C, Sedrak M, Lucas R, Trobridge A, Hegarty J, Miller N, Chen L, Jain R. Outcomes of a Multicenter, Prospective, Crossover, Randomized Controlled Trial Evaluating Subperception Spinal Cord Stimulation at ≤ 1.2 kHz in Previously Implanted Subjects. *Neuromodulation.* 2019;02:02.
51. North JM, Hong KJ, Cho PY. Clinical Outcomes of 1 kHz Subperception Spinal Cord Stimulation in Implanted Patients With Failed Paresthesia-Based Stimulation: Results of a Prospective Randomized Controlled Trial. *Neuromodulation.* 2016;19(7):731-7.
52. Palmer N, Guan Z, Chai NC. Spinal Cord Stimulation for Failed Back Surgery Syndrome -- Patient Selection Considerations. *Transl Perioper Pain Med.* 2019;6(3):81-90.
53. Petersen EA, Stauss TG, Scowcroft JA, Brooks ES, White JL, Sills SM, Amirdelfan K, Guirguis MN, Xu J, Yu C, Nairizi A, Patterson DG, Tsoulfas KC, Creamer MJ, Galan V, Bundschu RH, Mehta ND, Sayed D, Lad SP, DiBenedetto DJ, Sethi KA, Goree JH, Bennett MT, Harrison NJ, Israel AF, Chang P, Wu PW, Argoff CE, Nasr CE, Taylor RS, Caraway DL, Mekhail NA. High-Frequency 10-kHz Spinal Cord Stimulation Improves Health-Related Quality of Life in Patients With Refractory Painful Diabetic Neuropathy: 12-Month Results From a Randomized Controlled Trial. *Mayo Clin Proc Innov Qual Outcomes.* 2022;6(4):347-60.
54. Petersen EA, Stauss TG, Scowcroft JA, Brooks ES, White JL, Sills SM, Amirdelfan K, Guirguis MN, Xu J, Yu C, Nairizi A, Patterson DG, Tsoulfas KC, Creamer MJ, Galan V, Bundschu RH, Paul CA, Mehta ND, Choi H, Sayed D, Lad SP, DiBenedetto DJ, Sethi KA, Goree JH, Bennett MT, Harrison NJ, Israel AF, Chang P, Wu PW, Gekht G, Argoff CE, Nasr CE, Taylor RS, Subbaroyan J, Gliner BE, Caraway DL, Mekhail NA. Effect of High-frequency (10-kHz) Spinal Cord Stimulation in Patients With Painful Diabetic Neuropathy: A Randomized Clinical Trial. *JAMA Neurol.* 2021;78(6):687-698.
55. Schu S, Slotty PJ, Bara G, von Knop M, Edgar D, Vesper J. A prospective, randomised, double-blind, placebo-controlled study to examine the effectiveness of burst spinal cord stimulation patterns for the treatment of failed back surgery syndrome. *Neuromodulation.* 2014;17(5):443-50.
56. Slangen R, Schaper NC, Faber CG, Joosten EA, Dirksen CD, van Dongen RT, Kessels AG, van Kleef M. Spinal cord stimulation and pain relief in painful diabetic peripheral neuropathy: a prospective two-center randomized controlled trial. *Diabetes Care.* 2014;37(11):3016-24.
57. Stelter B, Karri J, Marathe A, Abd-Elseyed A. Dorsal Root Ganglion Stimulation for the Treatment of Non-Complex Regional Pain Syndrome Related Chronic Pain Syndromes: A Systematic Review. *Neuromodulation.* 2021;26:26.
58. Thomson SJ, Tavakkolizadeh M, Love-Jones S, Patel NK, Gu JW, Bains A, Doan Q, Moffitt M. Effects of Rate on Analgesia in Kilohertz Frequency Spinal Cord Stimulation: Results of the PROCO Randomized Controlled Trial. *Neuromodulation.* 2018;21(1):67-76.

59. van Beek M, Geurts JW, Slangen R, Schaper NC, Faber CG, Joosten EA, Dirksen CD, van Dongen RT, van Kuijk SMJ, van Kleef M. Severity of Neuropathy Is Associated With Long-term Spinal Cord Stimulation Outcome in Painful Diabetic Peripheral Neuropathy: Five-Year Follow-up of a Prospective Two-Center Clinical Trial. *Diabetes Care*. 2018;41(1):32-8.
60. Verrills P, Salmon J, Russo M, Gliner B, Barnard A, Caraway D. 10 kHz spinal cord stimulation for chronic upper limb and neck pain: Australian experience. *Eur Spine J*. 2020; 29(11):2786-2794.
61. Vigneri S, Sindaco G, Gallo G, Zanella M, Paci V, La Grua M, Ravaioli L, Pari G. Effectiveness of pulsed radiofrequency with multifunctional epidural electrode in chronic lumbosacral radicular pain with neuropathic features. *Pain Physician*. 2014;17(6):477-86.
62. Vuka I, Marcius T, Dosenovic S, Ferhatovic Hamzic L, Vucic K, Sapunar D, Puljak L. Neuromodulation with electrical field stimulation of dorsal root ganglion in various pain syndromes: a systematic review with focus on participant selection. *J Pain Res*. 2019;12:803-30.
63. Wylde V, Dennis J, Beswick AD, Bruce J, Eccleston C, Howells N, Peters TJ, Gooberman-Hill R. Systematic review of management of chronic pain after surgery. *Br J Surg*. 2017;104(10):1293-306.
64. Xu L, Sun Z, Casserly E, Nasr C, Cheng J, Xu J. Advances in Interventional Therapies for Painful Diabetic Neuropathy: A Systematic Review. *Anesth Analg*. 2022;134(6):1215-28.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Medical necessity reviews are initiated by submitting the correct AMA CPT codes. Specific CPT codes for services should be used when available. The submitted codes must accurately identify the service or procedure to be performed. If no such code exists, contact the health plan directly and report the service or procedure using the appropriate unlisted procedure or Not Otherwise Classified (NOC) code (which often ends in 99). Do not submit a code that is "close to" the procedure performed in lieu of an unlisted code. Correct coding demands that the code reported is appropriate for the service provided (i.e., a code that most accurately represents the service provided), and not a code that is similar but represents another service. (*CPT® Assistant*, December 2010) Nonspecific or NOC codes may be subject to additional documentation requirements and review.

CPT/HCPCS

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five-digit codes, nomenclature and other data are copyright by the American Medical Association. All Rights Reserved. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

63650	Percutaneous implantation of neurostimulator electrode array, epidural
63655	Laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
63663	Revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed
63664	Revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed
63685	Insertion or replacement of spinal neurostimulator pulse generator or receiver, requiring pocket creation and connection between electrode array and pulse generator or receiver
63688	Revision or removal of implanted spinal neurostimulator pulse generator or receiver, with detachable connection to electrode array
C1767	Generator, neurostimulator (implantable), non-rechargeable
C1820	Generator, neurostimulator (implantable), with rechargeable battery and charging system
C1822	Generator, neurostimulator (implantable), high frequency, with rechargeable battery and charging system
L8679	Implantable neurostimulator, pulse generator, any type
L8680	Implantable neurostimulator electrode, each
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension

L8688	Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
-------	---

History

Status	Review Date	Effective Date	Action
Revised	10/28/2024	06/15/2025	Independent Multispecialty Physician Panel (IMPP) review. Epidural injections: renamed section to include intradiscal injections; added associated CPT codes 62292, 0627T, 0628T, 0629T, 0630T. Reworded repeat ESI requirements related to advanced imaging. Diagnostic SNRB: specified that imaging guidance with contrast to confirm needle position is required unless contraindicated, specified requirement for advanced imaging. Facet injections: clarified that Intraosseous BVN Ablation can be done in patients with Type I or Type II Modic changes on MRI. Intraarticular sacroiliac joint injections: increased injection volume limit to 2.5 cc; specified that a repeat injection is indicated when prior injection provided relief for at least 3 months; increased number of injections allowed in a 12-month period to 4; added exclusion for substances other than corticosteroids (with or without local anesthetic) in therapeutic injections. Clarified PDN refers to painful diabetic neuropathy.
Revised	04/15/2024, 01/23/2024, 10/23/2023	06/30/2024 – Not for LA Medicaid	IMPP review. Added medical necessity criteria for Intraosseous BVN Ablation and associated CPT codes 64628 and 64629. Added references.
Revised	07/18/2023	04/14/2024 for all <u>except</u> LA Medicaid; 10/20/2024 for LA Medicaid	IMPP review. Epidural injections: added osteoporotic fracture as a contraindication. Facet injections: added exclusions. Spinal cord/Dorsal root stimulators: expanded stimulator trial criteria for PDN; added clarifications. Added references. Added required language to General Clinical Guideline per new Medicare regulations.
Updated	n/a	01/01/2024	Annual CPT code update. Description changes for 63685 and 63688. Added guidance for correct coding to code section.
Revised	05/09/2022	04/09/2023; 06/18/2023 for LA Medicaid	IMPP review. Updated conservative management requirements to align with other Carelon guidelines. Revised criteria for Epidural injections, Diagnostic MBB, RFN, Regional sympathetic nerve block.
Revised	05/09/2022	11/06/2022 for commercial, Medicare, non- Anthem Medicaid; 04/09/2023 for Anthem Medicaid <u>except</u> LA; 06/18/2023 for LA Medicaid	IMPP review. Epidural injections: For nerve root compression due to herniated disc, MRI/CT must be done within the previous 18 months. SNRB: Included a second session for cases requiring evaluation of more than one level. Therapeutic intra-articular facet injections: Added criteria for repeat injections in patients who met criteria for an initial injection. Added references.

Status	Review Date	Effective Date	Action
Revised	05/26/2021	03/13/2022	IMPP review. Epidural Injection Procedures and Diagnostic Selective Nerve Root Blocks (DSNRB): allowed more frequent use in newly diagnosed patients, removed imaging requirement in certain circumstances, added epidural abscess as a contraindication; DSNRBs required similar criteria to ESI and limited multilevel and combination DSNRB. Paravertebral Facet Injection/MBB/Neurolysis: limited indefinite use of diagnostic MBB, defined MBB timing with respect to RFN, MBB limited to RFA candidacy, limited open surgical neurolysis, and limited multiple spinal injections. Sacroiliac Joint Injections: limited indefinite use of diagnostic IA injections, disallowed sacral lateral branch blocks and injections in a previously fused joint. Spinal Cord and Nerve Root Stimulators: allowed minimally invasive pain procedures to satisfy conservative management definition, specified timing of mental health evaluation, defined indications for repeat stimulator trial. Updated references. Removed CPT code 64640.
Revised	05/26/2021	11/07/2021	IMPP review. Epidural Injection Procedures and Diagnostic SNRBs: allowed thoracic injections; removed thoracic ESI exclusion. Moved exclusion for radiofrequency neurolysis and CPT codes 64625 and 64640 from Paravertebral Facet Injection/MBB/ Neurolysis section to SI Joint Injections. Spinal Cord and Nerve Root Stimulators: waived surgical opinion requirement for patients with CRPS. Updated references.
Revised	07/08/2020	03/14/2021	IMPP review. Added exclusions: intradiscal spinal injections for chemonucleolysis, injection/infusion of neurolytic substances into the epidural or subarachnoid space, and diagnostic or therapeutic injection (anesthetic and/or steroid) of nerves innervating the SI joint. Added CPT codes 62280, 62281, 62282, 62292, 62324, 62325, 62327, 64451.
Updated	-	01/01/2021	2021 Annual CPT code update: removed 0228T, 0229T, 0230T, 0231T; descriptions changed for 64479, 64480, 64483, 64484.
Revised	10/29/2019	08/16/2020	IMPP review. Modified conservative management requirements to include physical therapy or home therapy plus a complementary modality in alignment with AIM [Carelton] Guidelines for Spine Surgery and Joint Surgery. Epidural Injection Procedures and Diagnostic SNRBs: added statement regarding adherence to procedural best practices established by FDA Safe Use Initiative; clarified intent around requirement for advanced imaging for repeat injections. Paravertebral Facet Injection/Nerve Block/Neurolysis: removed indication for four unilateral MBBs per session; limited use of intraarticular steroid injection to mechanical disruption of a facet synovial cyst. Spinal Cord and Nerve Root Stimulators: new indication for dorsal root ganglion stimulation; clarified exclusions for spinal cord and dorsal root ganglion stimulation.
Revised	-	01/01/2020	2020 Annual CPT code update: added 64625 (paravertebral facet joint injection/nerve block/neurolysis).
Revised	09/12/2018	05/18/2019	IMPP review. All procedures: Reporting of symptom severity expanded to include instrumental ADLs as functional impairment. Epidural Injection Procedures and Diagnostic SNRBs: updated time period of initial advanced imaging; added definition and frequency of repeat therapeutic ESIs; updated maximum number of annual injections; added criteria for subsequent injection after suboptimal initial response. Sacroiliac Joint Injection: lowered threshold in demonstrated pain reduction from the initial injection. Spinal Cord Stimulators: added criteria for revision/removal of spinal cord stimulator; separated criteria of trial stimulation and permanent stimulator implantation; added exclusion of dorsal root ganglion stimulation.

Status	Review Date	Effective Date	Action
Revised	09/12/2018	01/01/2019	IMPP review. Paravertebral Facet Injection/Nerve Block/Neurolysis: exclusion added for radiofrequency neurolysis for SI joint pain. 2019 Annual CPT code update: added 0228T, 0229T, 0230T, 0231T (epidural injection procedures); added 0213T, 0214T, 0215T, 0216T, 0217T, 0218T, 64640 (paravertebral facet joint injection/nerve block/neurolysis). HCPCS codes: added C1767, C1820, C1822, L8679, L8680, L8682, L8683, L8685, L8686, L8687, L8688 (spinal cord stimulators).
Revised	07/11/2018	03/09/2019	IMPP review. Added the General Clinical Guideline.
Revised	12/12/2017	07/01/2018	IMPP review. Epidural Injection Procedures and Diagnostic Selective Nerve Root Blocks: added preauthorization exemption for CPT codes 62320 and 62322 when used for post-procedural pain with certain diagnoses; for repeat therapeutic ESIs, clarified initial injection as therapeutic; clarified injection sessions for procedural requirements. Paravertebral Facet Injection/Nerve Block/Neurolysis: increased procedural limitation for diagnostic MBBs; increased procedural limitation for therapeutic intraarticular facet joint injections and clarified requirement for conservative treatment between injections. Added HCPCS code G0260 (SI joint injection).
Created	06/13/2017	11/01/2017	IMPP review. Original effective date.