National Imaging Associates, Inc.*

2024 Evolent Clinical Guidelines For Medical Necessity Review - HMSA

INTERVENTIONAL PAIN MANAGEMENT GUIDELINES

Effective January 1, 2024 – June 30, 2024



^{*}National Imaging Associates, Inc. (NIA) is a subsidiary of Evolent Health, Inc.

Guidelines for Clinical Review Determination

Preamble

NIA is committed to the philosophy of supporting safe and effective treatment for patients. The medical necessity criteria that follow are guidelines for the provision of diagnostic imaging. These criteria are designed to guide both providers and reviewers to the most appropriate diagnostic tests based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice will be used when applying the guidelines. Determinations are made based on both the guideline and clinical information provided at the time of the request. It is expected that medical necessity decisions may change as new evidence-based 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.

Guideline Development Process

These medical necessity criteria were developed by National Imaging Associates, Inc. (NIA) for the purpose of making clinical review determinations for requests for therapies and diagnostic procedures. The developers of the criteria sets included representatives from the disciplines of radiology, internal medicine, nursing, cardiology, and other specialty groups. NIA's guidelines are reviewed yearly and modified when necessary following a literature search of pertinent and established clinical guidelines and accepted diagnostic imaging practices.

All inquiries should be directed to:
Stacy Shupe, NIA Compliance Officer
NIA/Evolent
800 N. Glebe Road, Suite 500
Arlington, VA 22203

Fax: 888-656-0398

TABLE OF CONTENTS

INTERVENTIONAL PAIN MANAGEMENT GUIDELINES

EPIDURAL SPINE INJECTIONS

PARAVERTEBRAL FACET JOINT INJECTIONS OR BLOCKS

PARAVERTEBRAL FACET JOINT DENERVATION (RADIOFREQUENCY NEUROLYSIS)

SACROILIAC JOINT INJECTIONS

*National Imaging Associates, Inc.	
Clinical guidelines: EPIDURAL SPINE INJECTIONS	Original Date: October 2012
CPT Codes: Cervical Thoracic Region: 62320, 62321, 64479 (+64480) Lumbar Sacral Region: 62322, 62323, 64483 (+64484)	Last Revised Date: May 2023
Guideline Number: NIA_CG_300	Implementation Date: January 2024

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

Note: Any injection performed at least two years from prior injections in the same region will be considered a new episode of care and the **INITIAL** injection requirements must be met for approval. Events such as surgery on the same spinal region or any new pathology would also prompt a new episode of care.

INDICATIONS FOR EPIDURAL SPINE INJECTIONS OR SELECTIVE NERVE BLOCKS (Caudal, Interlaminar, Transforaminal)

See <u>LEGISLATIVE REQUIREMENTS</u> for specific mandates in the State of Washington

For the treatment of acute pain or exacerbation of chronic radicular pain¹ <u>ALL</u> of the following must be met:

- Neck or back pain with acute radicular symptoms²
- Pain causing functional disability or average pain level of ≥ 6 on a scale of 0 to 10²⁻⁵
- Duration of pain < 3 months
- Failure to respond to non-operative conservative therapy targeting the requested spinal region for a minimum of 2 weeks unless the medical reason this treatment cannot be done is clearly documented (active therapy components not required)^{2, 3}

For the treatment of spinal stenosis causing axial or radicular pain¹ <u>ALL</u> of the following must be met:

- Pain causing functional disability or average pain level of \geq 6 on a scale of 0 to 10 $^{2-5}$
- Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented; OR details of engagement in ongoing non-operative conservative therapy* if the individual has had prior spinal injections in the same region^{2, 3}

For the treatment of failed back surgery syndrome or epidural fibrosis causing axial^{6, 7} or radicular pain¹ ALL of the following must be met:

- Pain causing functional disability or average pain level of \geq 6 on a scale of 0 to 10 $^{2-5}$
- Documentation of a medical reason that clearly indicates why an injection is needed (not typically done immediately post-surgery)³
- Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented; OR details of engagement in ongoing non-operative conservative therapy* if the individual has had prior spinal injections in the same region^{2, 3}

For a diagnostic transforaminal injection to identify the pain generator for surgical planning <u>ALL</u> of the following must be met:

- Pain causing functional disability or average pain level of \geq 6 on a scale of 0 to 10 ²⁻⁵
- Documentation of a pre-operative evaluation and plan for surgery

NOTE: No more than 2 levels of transforaminal blocks should be done in one day.8

INDICATIONS FOR REPEAT INJECTIONS

Epidural injections may be repeated only as medically necessary. <u>Each</u> epidural injection requires an authorization, and the following criteria must be met for repeat injections:

- Up to 3 epidural injections may be performed in the initial treatment phase, no sooner than 2 weeks apart, provided that at least 30% pain relief or significant documented functional improvement is obtained⁵
- If an injection during the initial treatment phase is unsuccessful, another injection may be performed at a different level in the same spinal region or with a change in technique given there is a question about the pain generator or evidence of multi-level pathology
- Epidural injections may only be repeated after the initial treatment phase if the individual has had at least 50% pain relief or significant documented functional improvement for a **minimum of 2 months** after each therapeutic injection³

- The individual continues to have pain causing functional disability or average pain level \geq 6 on a scale of 0 to 10 ^{2, 3, 5}
- The individual is engaged in ongoing active conservative therapy*, unless the medical reason this treatment cannot be done is clearly documented^{2, 9}
- In the first year of treatment, a total of 6 epidural injections may be performed **per spinal region** (this includes a series of 3 injections in the initial treatment phase and 3 additional therapeutic injections).³
- After the first year of treatment, a maximum of 4 epidural injections may be performed in a 12-month period **per spinal region**.^{3, 5} If special circumstances are documented (e.g., elderly individual with severe spinal stenosis and not an operative candidate), then repeat injections are limited to a maximum of 6 epidural injections in a 12-month period per spinal region.⁵
- If different spinal regions are being treated, injections should be administered at intervals of no sooner than 7 days unless a medical reason is provided to necessitate injecting multiple regions on the same date of service (see NOTE).³

NOTE: It is generally considered **not medically necessary** to perform multiple interventional pain procedures on the same date of service. Documentation of a medical reason to perform injections in different regions on the same day can be provided and will be considered on a case-by-case basis (e.g., holding anticoagulation therapy on two separate dates creates undue risk for the patient). Different types of injections in the same spinal region (cervical, thoracic, or lumbar) should not be done on the same day with the exception of a facet injection and ESI performed during the same session for a synovial cyst confirmed on imaging.

EXCLUSIONS

These requests are excluded from consideration under this guideline:

- Intrathecal injections for pain or spasticity prior to permanent pump insertion
- Implantation of intrathecal catheters or ports for chemotherapy
- Post-operative pain control
- Caudal or spinal anesthesia for surgery

CONTRAINDICATIONS FOR EPIDURAL INJECTIONS

- Active systemic or spinal infection
- Skin infection at the site of needle puncture
- Severe spinal stenosis resulting in intraspinal obstruction

Washington

- Washington State Health Care Authority Technology Assessment 20160318B – Spinal Injections^{10, 11} Limitations of Coverage*:
 - o Therapeutic epidural injections in the lumbar or cervical-thoracic spine for chronic pain are a covered benefit when all of the following conditions are met:
 - For treatment of radicular pain
 - With fluoroscopic guidance or CT guidance
 - After failure of conservative therapy
 - No more than two without clinically meaningful improvement in pain and function; and
 - Maximum of three in six months.
 - Washington State Health Care Authority oversees the Apple Health (Medicaid) program and the Public Employees Benefits Board (PEBB) Program¹²
- * This coverage policy does not apply to those with a known systemic inflammatory disease such as: ankylosing spondylitis, psoriatic arthritis or enteropathic arthritis

BACKGROUND

Therapeutic Spinal Epidural Injections or Select Nerve Root Blocks (Transforaminal) are types of interventional pain management procedures. The therapeutic use of epidural injections is for short-term pain relief associated with acute back pain or exacerbation of chronic back pain. With therapeutic injections, a corticosteroid is injected close to the target area with the goal of pain reduction. Epidural injections should be used in combination with other active conservative treatment* modalities and not as stand-alone treatment for long-term back pain relief. Different approaches used when administering spinal epidural injections¹³ include:

- <u>Interlaminar</u> epidural injections, with steroids, access the epidural space between two vertebrae (Interlaminar) to treat cervical, lumbar, or thoracic pain with radicular pain.¹⁴ These procedures should be performed using fluoroscopic guidance.^{15, 16} Interlaminar epidural injections are the most common type of epidural injection.
- <u>Transforaminal</u> epidural injections (also called selective nerve root blocks) access the epidural space via the intervertebral foramen where the spinal nerves exit (cervical, lumbar/sacral, or thoracic region). It is used both diagnostically and therapeutically. Some studies report lack of evidence and risks of transforaminal epidural injections.¹⁷ These procedures are always aided with fluoroscopic guidance.^{1, 16, 18-21}
- <u>Caudal</u> epidural injections, with steroids, are used to treat back and lower extremity pain, accessing the epidural space through the sacral hiatus, providing access to the lower nerve roots of the spine. These procedures should be performed using

fluoroscopic guidance. Failed back surgery syndrome is the most common reason for the caudal approach.^{3, 16, 21-23}

The rationale for the use of spinal epidural injections is that the sources of spinal pain, e.g., discs and joints, are accessible and amendable to neural blockade.

Medical necessity management for epidural injections includes an initial evaluation including history and physical examination as well as a psychosocial and functional assessment. The following must be determined: nature of the suspected organic problem; non-responsiveness to active <u>conservative treatment*</u>; level of pain and functional disability; conditions which may be contraindications to epidural injections; and responsiveness to prior interventions.

Interventional pain management specialists do not agree on how to diagnose and manage spinal pain; there is a lack of consensus with regards to the type and frequency of spinal interventional techniques for treatment of spinal pain. The American Society of Interventional Pain Physicians (ASIPP) guidelines recommend an algorithmic approach which provides a step-by-step procedure for managing chronic spinal pain based upon evidence-based guidelines.^{1, 3} This approach is based on the structural basis of spinal pain and incorporates acceptable evidence of diagnostic and therapeutic interventional techniques available in managing chronic spinal pain.

The guidelines and algorithmic approach referred to above include the evaluation of evidence for diagnostic and therapeutic procedures in managing chronic spinal pain and recommendations for managing spinal pain. The Indications and Contraindications presented within this document are based on the guidelines and algorithmic approach. Prior to performing this procedure, shared decision-making between patient and physician must occur, and the patient must understand the procedure and its potential risks and results (moderate short-term benefits, and lack of long-term benefits).

OVERVIEW

*Conservative Therapy - Non-operative treatment should include a multimodality approach consisting of a combination of active and inactive components. Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy. Active modalities should be region-specific (targeting the cervical, thoracic, or lumbar spine) and consist of physical therapy, a physician-supervised home exercise program**, or chiropractic care.^{2, 9, 24}

**Home Exercise Program (HEP) - The following two elements are required to meet guidelines for completion of conservative therapy:

- Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor^{9, 25, 26}; **AND**
- Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (i.e., increased pain or inability to physically perform exercises). Closure of medical offices,

closure of therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" HEP.^{2, 9}

Terminology - Interlaminar Epidural; Selective Nerve Root Injection (transforaminal only); Transforaminal Injection; Injections of Spinal Canal

Hip-spine syndrome²⁷⁻²⁹ - Hip-spine syndrome is a condition that includes both debilitating hip osteoarthritis and low back pain. Abnormal spinal sagittal alignment and difficulty in maintaining proper balance, as well as a wobbling gait, may be caused by severe osteoarthritis of the hip joint. Epidural injections are used to determine a primary pain generator in this condition.

Spondylolisthesis and nerve root irritation^{13, 30-33} - Degenerative lumbar spondylolisthesis is the displacement of a vertebra in the lower part of the spine; one lumbar vertebra slips forward on another with an intact neural arch and begins to press on nerves. The most common cause, in adults, is degenerative disease; although, it may also result from bone diseases and fractures. Degenerative spondylolisthesis is not always symptomatic. Epidural injections may be used to determine a previously undocumented nerve root irritation because of spondylolisthesis.

Lumbar spinal stenosis with radiculitis^{13, 34, 35} - Spinal stenosis is narrowing of either the spinal column or of the neural foramina where spinal nerves leave the spinal column, causing pressure on the spinal cord. The most common cause is degenerative changes in the lumbar spine. Neurogenic claudication is the most common symptom, with leg symptoms including the buttock, groin, and anterior thigh; however, symptoms may also radiate down along the posterior leg to the foot. In addition to pain, leg symptoms can include fatigue, heaviness, weakness, or paresthesia. Some individuals may also suffer from accompanying back pain. Symptoms are worse when standing or walking and are relieved by sitting. Lumbar spinal stenosis is often a disabling condition, and it is the most common reason for lumbar spinal surgery in adults over 65 years. The most common levels of stenosis are L3 through L5, but it may occur at multilevel in some individuals. Radiculitis is the inflammation of a spinal nerve root that causes pain to radiate along the nerve paths. Epidural injections help to ascertain the level of the pain generator in this condition.

Lumbar herniated disc³⁶⁻³⁹ - Epidural steroid injections have been proven to be effective at reducing symptoms of lumbar herniated discs. Observation and epidural steroid injection are effective nonsurgical treatments for this condition.

Postoperative epidural fibrosis⁴⁰⁻⁴² - Epidural fibrosis is a common cause of failed back surgery syndrome. With the removal of a disc, the mechanical reason for pain may be removed, but an inflammatory condition may continue after the surgery and may cause pain. Epidural corticosteroids, with their anti-inflammatory properties, are used to treat postoperative fibrosis and may be used along with oral Gabapentin to reduce pain.

Failed back surgery syndrome (FBSS)^{21, 43} - Failed back surgery syndrome is characterized by persistent or recurring low back pain, with or without sciatica, following lumbar surgery. The most common cause of FBSS is epidural fibrosis triggered by a surgical procedure such as

liscectomy. The inflammation resulting from the surgical procedure may start the process of ibrosis and cause pain. Epidural steroid injections are administered to reduce pain.	

REFERENCES

- 1. Manchikanti L, Knezevic NN, Navani A, et al. Epidural Interventions in the Management of Chronic Spinal Pain: American Society of Interventional Pain Physicians (ASIPP) Comprehensive Evidence-Based Guidelines. *Pain Physician*. Jan 2021;24(S1):S27-s208.
- 2. Summers J. International Spine Intervention Society Recommendations for treatment of Cervical and Lumbar Spine Pain. 2013.
- 3. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. Apr 2013;16(2 Suppl):S49-283.
- 4. Kreiner DS, Hwang S, Easa J, et al. Clinical guidelines for diagnosis and treatment of lumbar disc herniation with radiculopathy. North American Spine Society (NASS). Updated 2012. Accessed January 19, 2022.
- https://chiro.org/LINKS/GUIDELINES/Clinical_Guideline_for_the_Diagnosis_and_Treatment_of_Lumbar_Disc_Herniation_with_Radiculopathy.pdf
- 5. Akuthota V, Bogduk N, Easa JE, et al. Lumbar Transforaminal Epidural Steroid Injections: Review and Recommendation Statement. North American Spine Society (NASS). Updated January 2013. Accessed January 19, 2022.
- https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/LTFESIReviewRecStatement.pdf
- 6. Daniell JR, Osti OL. Failed Back Surgery Syndrome: A Review Article. *Asian Spine J.* Apr 2018;12(2):372-379. doi:10.4184/asj.2018.12.2.372
- 7. Orhurhu VJ, Chu R, J G. Failed Back Surgery Syndrome. StatPearls Publishing. May 22, 2023. Updated May 8, 2022. Accessed March 30, 2023.
- https://www.ncbi.nlm.nih.gov/books/NBK539777/
- 8. Singh JR, Cardozo E, Christolias GC. The Clinical Efficacy for Two-Level Transforaminal Epidural Steroid Injections. *Pm r*. Apr 2017;9(4):377-382. doi:10.1016/j.pmrj.2016.08.030
- 9. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
- 10. Authority WSHC. Health Technology Reviews Spinal Injections. Washington State Health Care Authority. Accessed May, 2023. https://www.hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/spinal-injections
- 11. Authority WSHC. Health Technology Assessment Spinal Injections. Washington State Health Care Authority. May 25, 2023. Updated May 20, 2016. Accessed May 25, 2023.

https://www.hca.wa.gov/assets/program/spinal injections-

- rr final findings decision 060216.pdf
- 12. Authority WHC. About the Health Care Authority (HCA). Washington Health Care Authority. May, 2023. Accessed May, 2023. https://www.hca.wa.gov/about-hca
- 13. Hassan KZ, Sherman AL. Epidural Steroids. StatPearls Publishing Copyright © 2022, StatPearls Publishing LLC. Updated January 2, 2022. Accessed April 13, 2022. https://www.ncbi.nlm.nih.gov/books/NBK537320/

- 14. Knezevic NN, Paredes S, Cantillo S, Hamid A, Candido KD. Parasagittal Approach of Epidural Steroid Injection as a Treatment for Chronic Low Back Pain: A Systematic Review and Meta-Analysis. *Front Pain Res (Lausanne)*. 2021;2:676730. doi:10.3389/fpain.2021.676730
- 15. Manchikanti L, Knezevic E, Knezevic NN, et al. Epidural Injections for Lumbar Radiculopathy or Sciatica: A Comparative Systematic Review and Meta-Analysis of Cochrane Review. *Pain Physician*. Aug 2021;24(5):E539-e554.
- 16. North American Spine Society (NASS). Five things physicians and patients should question: Don't perform elective spinal injections without imaging guidance, unless contraindicated. ABIM. Updated 2021. Accessed April 21, 2022. https://www.choosingwisely.org/clinician-lists/north-american-spine-society-elective-spinal-injections-without-imaging-guidance/
- 17. Evidence-based clinical guidelines for multidisciplinary spine care: Diagnosis and treatment of low back pain. North American Spine Society

(NASS). Updated 2020. Accessed April 13, 2022.

https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBack Pain.pdf

- 18. Manchikanti L, Knezevic E, Knezevic NN, et al. A Comparative Systematic Review and Meta-Analysis of 3 Routes of Administration of Epidural Injections in Lumbar Disc Herniation. *Pain Physician*. Sep 2021;24(6):425-440.
- 19. Yang C, Kim NE, Beak JS, Tae NY, Eom BH, Kim BG. Acute cervical myelopathy with quadriparesis after cervical transforaminal epidural steroid injection: A case report. *Medicine* (*Baltimore*). Dec 2019;98(50):e18299. doi:10.1097/md.00000000018299
- 20. Zhang X, Shi H, Zhou J, et al. The effectiveness of ultrasound-guided cervical transforaminal epidural steroid injections in cervical radiculopathy: a prospective pilot study. *J Pain Res*. 2019;12:171-177. doi:10.2147/jpr.S181915
- 21. Celenlioglu AE, Sencan S, Bilim S, Sancar M, Gunduz OH. Comparison of Caudal Versus Transforaminal Epidural Steroid Injection in Post Lumbar Surgery Syndrome After Single-level Discectomy: A Prospective, Randomized Trial. *Pain Physician*. Mar 2022;25(2):161-169.
- 22. Hashemi M, Dadkhah P, Taheri M, Ghasemi M. Effects of Caudal Epidural Dexmedetomidine on Pain, Erythrocyte Sedimentation Rate and Quality of Life in Patients with Failed Back Surgery Syndrome; A Randomized Clinical Trial. *Bull Emerg Trauma*. Jul 2019;7(3):245-250. doi:10.29252/beat-070306
- 23. Chang MC, Lee DG. Clinical effectiveness of caudal epidural pulsed radiofrequency stimulation in managing refractory chronic leg pain in patients with postlumbar surgery syndrome. *J Back Musculoskelet Rehabil*. 2020;33(3):523-528. doi:10.3233/bmr-170981
- 24. American College of Radiology. ACR Appropriateness Criteria® Low Back Pain. American College of Radiology (ACR). Updated 2021. Accessed November 10, 2021.

https://acsearch.acr.org/docs/69483/Narrative/

25. Sculco AD, Paup DC, Fernhall B, Sculco MJ. Effects of aerobic exercise on low back pain patients in treatment. *Spine J*. Mar-Apr 2001;1(2):95-101. doi:10.1016/s1529-9430(01)00026-2 26. Durmus D, Unal M, Kuru O. How effective is a modified exercise program on its own or with back school in chronic low back pain? A randomized-controlled clinical trial. *J Back Musculoskelet Rehabil*. 2014;27(4):553-61. doi:10.3233/bmr-140481

- 27. Miyagi M, Fukushima K, Inoue G, et al. Hip-spine syndrome: cross-sectional-study of spinal alignment in patients with coxalgia. *Hip Int*. Jan 2019;29(1):21-25.
- doi:10.1177/1120700018803236
- 28. Devin CJ, McCullough KA, Morris BJ, Yates AJ, Kang JD. Hip-spine syndrome. *J Am Acad Orthop Surg*. Jul 2012;20(7):434-42. doi:10.5435/jaaos-20-07-434
- 29. Younus A, Kelly A. Hip spine syndrome A case series and literature review. *Interdisciplinary Neurosurgery*. 2021/03/01/ 2021;23:100960. doi:https://doi.org/10.1016/j.inat.2020.100960
- 30. Sindhi V, Lim CG, Khan A, Pino C, Cohen SP. Dural puncture during lumbar epidural access in the setting of degenerative spondylolisthesis: case series and risk mitigation strategies. *Reg Anesth Pain Med.* Nov 2021;46(11):992-996. doi:10.1136/rapm-2021-102963
- 31. Reitman CA, Cho CH, Bono CM, et al. Management of degenerative spondylolisthesis: development of appropriate use criteria. *Spine J*. Aug 2021;21(8):1256-1267. doi:10.1016/j.spinee.2021.03.005
- 32. Gerling MC, Bortz C, Pierce KE, Lurie JD, Zhao W, Passias PG. Epidural Steroid Injections for Management of Degenerative Spondylolisthesis: Little Effect on Clinical Outcomes in Operatively and Nonoperatively Treated Patients. *J Bone Joint Surg Am*. Aug 5 2020;102(15):1297-1304. doi:10.2106/jbjs.19.00596
- 33. Demir-Deviren S, Ozcan-Eksi EE, Sencan S, Cil H, Berven S. Comprehensive non-surgical treatment decreased the need for spine surgery in patients with spondylolisthesis: Three-year results. *J Back Musculoskelet Rehabil*. 2019;32(5):701-706. doi:10.3233/bmr-181185
- 34. Manchikanti L, Knezevic NN, Boswell MV, Kaye AD, Hirsch JA. Epidural Injections for Lumbar Radiculopathy and Spinal Stenosis: A Comparative Systematic Review and Meta-Analysis. *Pain Physician*. Mar 2016;19(3):E365-410.
- 35. Wu L, Cruz R. Lumbar Spinal Stenosis. StatPearls Publishing LLC. Updated August 25, 2021. Accessed April 14, 2022. https://pubmed.ncbi.nlm.nih.gov/30285388/
- 36. Bhatia A, Flamer D, Shah PS, Cohen SP. Transforaminal Epidural Steroid Injections for Treating Lumbosacral Radicular Pain from Herniated Intervertebral Discs: A Systematic Review and Meta-Analysis. *Anesth Analg*. Mar 2016;122(3):857-870.
- doi:10.1213/ane.0000000000001155
- 37. Lee JH, Kim DH, Kim DH, et al. Comparison of Clinical Efficacy of Epidural Injection With or Without Steroid in Lumbosacral Disc Herniation: A Systematic Review and Meta-analysis. *Pain Physician*. Sep 2018;21(5):449-468.
- 38. Lee JH, Shin KH, Park SJ, et al. Comparison of Clinical Efficacy Between Transforaminal and Interlaminar Epidural Injections in Lumbosacral Disc Herniation: A Systematic Review and Meta-Analysis. *Pain Physician*. Sep 2018;21(5):433-448.
- 39. Manchikanti L, Singh V, Cash KA, Pampati V, Damron KS, Boswell MV. Effect of fluoroscopically guided caudal epidural steroid or local anesthetic injections in the treatment of lumbar disc herniation and radiculitis: a randomized, controlled, double blind trial with a two-year follow-up. *Pain Physician*. Jul-Aug 2012;15(4):273-86.
- 40. Masopust V, Häckel M, Netuka D, Bradác O, Rokyta R, Vrabec M. Postoperative epidural fibrosis. *Clin J Pain*. Sep 2009;25(7):600-6. doi:10.1097/AJP.0b013e3181a5b665

- 41. Häckel M, Masopust V, Bojar M, Ghaly Y, Horínek D. The epidural steroids in the prevention of epidural fibrosis: MRI and clinical findings. *Neuro Endocrinol Lett*. Mar 2009;30(1):51-5.
- 42. Braverman DL, Slipman CW, Lenrow DA. Using gabapentin to treat failed back surgery syndrome caused by epidural fibrosis: A report of 2 cases. *Arch Phys Med Rehabil*. May 2001;82(5):691-3. doi:10.1053/apmr.2001.21867
- 43. Manchikanti L, Singh V, Cash KA, Pampati V, Datta S. Management of pain of post lumbar surgery syndrome: one-year results of a randomized, double-blind, active controlled trial of fluoroscopic caudal epidural injections. *Pain Physician*. Nov-Dec 2010;13(6):509-21.

POLICY HISTORY

Date	Summary
May 2023	Added in references
	Removed Additional Resources
	Added Legislative language for Washington State
May 2022	Added note to clarify when <u>INITIAL</u> injection requirements must be met for approval
	Reorganized indications for clarity and uniformity
	Added region-specific wording to conservative treatment
	requirement (e.g., conservative therapy targeting the requested spinal region)
	Clarified acute pain as duration less than 3 months
	 Updated Frequency of Repeat Injections section and Removed 'Therapeutic' from Section Title (since up to 3 diagnostic injections are allowed by GL)
	Exclusions section:
	 Added caudal or spinal anesthesia for surgery
	 Updated intrathecal injections for pain or spasticity prior to permanent pump insertion
	Updated and simplified contraindications list for epidural injections
January 2022	Off-cycle change: Changed pain relief period after initial injection:
	At least 50% or more pain relief obtained for a minimum of 6
	weeks 2 months after initial injections (Manchikanti, 2013)

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

*National Imaging Associates, Inc.	
Clinical guidelines: Original Date: October 2012	
PARAVERTEBRAL FACET JOINT INJECTIONS OR BLOCKS	
CPT Codes:	Last Revised Date: May 2023
Cervical Thoracic Region: 64490 (+ 64491, +64492)	
0213T, +0214T, +0215T	
Lumbar Region: 64493 (+64494, +64495) 0216T,	
+0217T, +0218T	
Guideline Number: NIA_CG_301	Implementation Date: January 2024

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted

Note: Any injection performed at least two years from prior injections in the same region will be considered a new episode of care and the **INITIAL** injection requirements must be met for approval. Events such as surgery on the same spinal region or any new pathology would also prompt a new episode of care.

INDICATIONS FOR FACET JOINT INJECTIONS OR MEDIAL BRANCH NERVE BLOCKS¹⁻⁴

See <u>Legislative Requirements</u> for specific mandates in the State of Washington

To confirm non-radicular pain suggestive of facet joint or pars interarticularis origin <u>ALL</u> of the following must be met:

- History of mainly axial or non-radicular pain unless stenosis is caused by synovial cyst⁵⁻⁷
- Lack of evidence that the primary source of pain being treated is from sacroiliac joint pain, discogenic pain, disc herniation, or radiculitis⁵⁻⁷
- For chronic lumbar spondylolysis, imaging studies that confirm the presence of a pars interarticularis fracture/defect are required
- Pain causing functional disability or average pain level of ≥ 6 on a scale of 0 to 10 ⁶⁻⁸

- Duration of pain of at least 3 months^{6,7}
- Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented; OR details of engagement in ongoing non-operative conservative therapy* if the individual has had prior spinal injections in the same region^{6, 8, 9}

NOTE: All procedures must be performed under imaging guidance. 10-14

INDICATIONS FOR REPEAT INJECTIONS

Facet joint injections and medial branch nerve blocks may be repeated only as medically necessary. **Each** injection requires an authorization, and the following criteria must be met for repeat injections:

- Up to 2 injections may be performed in the initial diagnostic phase, no sooner than 2 weeks apart, provided at least 50% pain relief or significant documented functional improvement is obtained⁶
 - If the most recent injection was a diagnostic block with local anesthetic only, there must be at least 7 days between injections
- If the first injection is unsuccessful, a second injection may be performed at a different spinal level or with a change in technique (i.e. e.g., from an intra-articular facet injection to a medial branch nerve block) given there is a question about the pain generator or evidence of multi-level pathology
- Facet joint injections may only be repeated after the initial diagnostic phase if the individual has had at least 50% pain relief or significant documented functional improvement for a minimum of 2 months after each therapeutic injection⁶
- The individual continues to have pain causing functional disability or average pain level \geq 6 on a scale of 0 to $10^{6,8}$
- The individual is engaged in ongoing active conservative therapy*, unless the medical reason this treatment cannot be done is clearly documented^{6, 8, 9}
 - Diagnostic injections within 1 month of the previous injection do not require documentation of ongoing active conservative therapy
- In the diagnostic phase, a maximum of 2 procedures may be performed. Repeat diagnostic injections after successful radiofrequency neurolysis are allowable if there is a question about the pain generator, different levels are to be targeted, or if there is surgery in the same spinal region.
- A maximum of 4 facet injections may be performed in a 12-month period per spinal region (except under unusual circumstances, such as a recurrent injury).⁶
 - Unilateral injections performed at the same level on the right vs. left within 1 month of each other would be considered as one procedure toward the total number of facet procedures allowed per 12 months.⁶

 If different spinal regions are being treated, injections should be administered at intervals of no sooner than 7 days unless a medical reason is provided to necessitate injecting multiple regions on the same date of service (see NOTE)⁶

Radiofrequency neurolysis procedures should be considered in individuals with a successful medial branch nerve block (at least 70% pain relief or improved ability to function), but with insufficient sustained relief (less than 2-3 months improvement).^{6,8}

NOTE: It is generally considered **not medically necessary** to perform multiple interventional pain procedures on the same date of service. Documentation of a medical reason to perform injections in different regions on the same day can be provided and will be considered on a case-by-case basis (e.g., holding anticoagulation therapy on two separate dates creates undue risk for the patient). Different types of injections in the same spinal region (cervical, thoracic, or lumbar) should not be done on the same day with the exception of a facet injection and ESI performed during the same session for a synovial cyst confirmed on imaging.

EXCLUSIONS

These requests are excluded from consideration under this guideline:

- Sacral lateral branch blocks (S1, S2, S3)
- Atlantoaxial joint injections (C1-2)
- Occipital nerve blocks
- Hardware injection or block for diagnosis or treatment of post-surgical or other spine pain

CONTRAINDICATIONS FOR FACET JOINT INJECTIONS

- Active systemic or spinal infection
- Skin infection at the site of needle puncture
- Inability to obtain percutaneous access to the target facet joint

LEGISLATIVE REQUIREMENTS

- Washington
 - Washington State Health Care Authority Health Technology Assessment 20160318B – Spinal Injections^{15, 16}
 - Therapeutic medial branch nerve block injections, intradiscal injections and facet injections are not a covered benefit.¹⁵
 - Washington State Health Care Authority oversees the Apple Health (Medicaid) program and the Public Employees Benefits Board (PEBB) Program.¹⁷

BACKGROUND

Facet joints, (also called zygapophyseal joints or z-joints), posterior to the vertebral bodies in the spinal column and connecting the vertebral bodies to each other, are located at the junction of the inferior articular process of a more cephalad vertebra and the superior articular process of a more caudal vertebra. These joints provide stability and enable movement, allowing the spine to bend, twist, and extend in different directions. They also restrict hyperextension and hyperflexion.^{6, 18}

Facet joints are clinically important spinal pain generators in individuals with chronic spinal pain. In 15-45% of individuals with chronic low back pain, facet joints have been implicated as a cause of the pain. Facet joints are considered as the cause of chronic spinal pain in 48% of individuals with thoracic pain and 54-67% of individuals with chronic neck pain. Facet joints may refer pain to adjacent structures, making the underlying diagnosis difficult as referred pain may assume a pseudoradicular pattern. Lumbar facet joints may refer pain to the back, buttocks, and lower extremities while cervical facet joints may refer pain to the head, neck, and shoulders.

Imaging findings are of little value in determining the source and location of 'facet joint syndrome', a term originally used by Ghormley²⁰ in 1933, referring to back pain caused by pathology at the facet joints. Imaging studies may detect changes in facet joint architecture, but correlation between radiologic findings and symptoms is unreliable. Although clinical signs are also unsuitable for diagnosing facet joint-mediated pain, they may be of value in selecting individuals for controlled local anesthetic blocks of either the medial branches or the facet joint itself.²¹

Medical necessity management for paravertebral facet injections includes an initial evaluation including history and physical examination and a psychosocial and functional assessment. The following must be determined: nature of the suspected organic problem; non-responsiveness to conservative treatment*; level of pain and functional disability; conditions which may be contraindications to paravertebral facet injections; and responsiveness to prior interventions.

The most common source of chronic pain is the spine, and up to 80% of the U.S. population suffers from spinal pain sometime during their life span.²² Facet joint interventions are used in the treatment of pain in certain individuals with a confirmed diagnosis of facet joint pain. Interventions include intraarticular injections and medial branch nerve blocks in the lumbar, cervical, and thoracic spine. Prior to performing this procedure, shared decision-making between patient and physician must occur, and the patient must understand the procedure and its potential risks and results. Facet joint injections or medial branch nerve blocks require guidance imaging.

OVERVIEW

- *Conservative Therapy Non-operative treatment should include a multimodality approach consisting of a combination of active and inactive components. Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy. Active modalities should be region-specific (targeting the cervical, thoracic, or lumbar spine) and consist of physical therapy, a physician-supervised home exercise program**, or chiropractic care.^{8, 23}
- **Home Exercise Program (HEP) The following two elements are required to meet guidelines for completion of conservative therapy:
 - Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor²³⁻²⁵; **AND**
 - Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (e.g., increased pain or inability to physically perform exercises). Closure of medical offices, closure of therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" HEP.^{8, 23}

Terminology: Facet Injections; Facet Joint Blocks; Paravertebral Facet Injections; Paravertebral Facet Joint Injections; Paravertebral Facet Joint Nerve Injections; Zygapophyseal injections; Lumbar Facet Blockade; Medial Branch blocks

REFERENCES

- 1. Wald JT, Geske JR, Diehn FE, et al. A practice audit of CT-guided injections of pars interarticularis defects in patients with axial low back pain: a primer for further investigation. *Pain Med.* May 2014;15(5):745-50. doi:10.1111/pme.12344
- 2. Kershen LM, Nacey NC, Patrie JT, Fox MG. Accuracy and efficacy of fluoroscopy-guided pars interarticularis injections on immediate and short-term pain relief. *Skeletal Radiol*. Oct 2016;45(10):1329-35. doi:10.1007/s00256-016-2427-2
- 3. Linton AA, Hsu WK. A Review of Treatment for Acute and Chronic Pars Fractures in the Lumbar Spine. *Curr Rev Musculoskelet Med*. Aug 2022;15(4):259-271. doi:10.1007/s12178-022-09760-9
- 4. Choi JH, Ochoa JK, Lubinus A, Timon S, Lee YP, Bhatia NN. Management of lumbar spondylolysis in the adolescent athlete: a review of over 200 cases. *Spine J*. Oct 2022;22(10):1628-1633. doi:10.1016/j.spinee.2022.04.011
- 5. Khan AM, Girardi F. Spinal lumbar synovial cysts. Diagnosis and management challenge. *Eur Spine J.* Aug 2006;15(8):1176-82. doi:10.1007/s00586-005-0009-4
- 6. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. Apr 2013;16(2 Suppl):S49-283.
- 7. Manchikanti L, Boswell MV, Singh V, et al. Comprehensive evidence-based guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician*. Jul-Aug 2009;12(4):699-802.
- 8. Summers J. International Spine Intervention Society Recommendations for treatment of Cervical and Lumbar Spine Pain. 2013.
- 9. Hurley RW, Adams MCB, Barad M, et al. Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group. *Pain Med*. Nov 26 2021;22(11):2443-2524. doi:10.1093/pm/pnab281
- 10. Weininger M, Mills JC, Rumboldt Z, Bonaldi G, Huda W, Cianfoni A. Accuracy of CT guidance of lumbar facet joint block. *AJR Am J Roentgenol*. Mar 2013;200(3):673-6. doi:10.2214/ajr.12.8829
- 11. Amrhein TJ, Joshi AB, Kranz PG. Technique for CT Fluoroscopy-Guided Lumbar Medial Branch Blocks and Radiofrequency Ablation. *AJR Am J Roentgenol*. Sep 2016;207(3):631-4. doi:10.2214/ajr.15.15694
- 12. Chen CPC, Chen JL, Ho CS, Suputtitada A. Ultrasound-guided Medial Branch Blocks, Facet Joint, and Multifidus Muscle Injections: How It Is Done under One Needle Insertion Point! *Anesthesiology*. Mar 2020;132(3):582-583. doi:10.1097/aln.0000000000003043
- 13. 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*). Apr 2017;96(16):e6655. doi:10.1097/md.000000000006655
- 14. 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*. Jan 2017;46(1):81-91. doi:10.1007/s00256-016-2516-2

- 15. Spinal Injections. Washington State Health Care Authority. Updated May 20, 2016. Accessed September 22, 2022. http://hca.wa.gov/assets/program/spinal_injections-rr final findings decision 060216.pdf
- 16. Health technology reviews: spinal injections. Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. http://hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/spinal-injections
- 17. About the Health Care Authority (HCA). Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. http://hca.wa.gov/about-hca
- 18. Kim BY, Concannon TA, Barboza LC, Khan TW. The Role of Diagnostic Injections in Spinal Disorders: A Narrative Review. *Diagnostics (Basel)*. Dec 9 2021;11(12)doi:10.3390/diagnostics11122311
- 19. 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;5:15-15. doi:10.1186/1471-2474-5-15
- 20. Ghormley RK. Low back pain: with special reference to the articular facets, with presentation of an operative procedure. *JAMA*. 1933;101(23):1773-1777.
- 21. Gellhorn AC, Katz JN, Suri P. Osteoarthritis of the spine: the facet joints. *Nat Rev Rheumatol*. 2013;9(4):216-224. doi:10.1038/nrrheum.2012.199
- 22. Rubin DI. Epidemiology and risk factors for spine pain. *Neurol Clin*. May 2007;25(2):353-71. doi:10.1016/j.ncl.2007.01.004
- 23. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
- 24. Sculco AD, Paup DC, Fernhall B, Sculco MJ. Effects of aerobic exercise on low back pain patients in treatment. *Spine J*. Mar-Apr 2001;1(2):95-101. doi:10.1016/s1529-9430(01)00026-2 25. Durmus D, Unal M, Kuru O. How effective is a modified exercise program on its own or with back school in chronic low back pain? A randomized-controlled clinical trial. *J Back Musculoskelet Rehabil*. 2014;27(4):553-61. doi:10.3233/bmr-140481

POLICY HISTORY

Date	Summary
May 2023	 Expanded indication for pars interarticularis Added to exclusions Sacral lateral branch block (S1, S2, S3) Atlantoaxial joint injections (C1-2) Hardware injection or block for dx or treatment of post-surgical or other spine pain Added references
May 2022	 Added note to clarify when <u>INITIAL</u> injection requirements must be met for approval Reorganized indications for clarity and uniformity Added region-specific wording to conservative treatment requirement (e.g., conservative therapy targeting the requested spinal region) Simplified indications by combining two "lack of evidence" indications Clarified "average" pain levels Add US guidance for procedure as option (in addition to fluoroscopic or CT guidance) Extended the interval from 2 weeks to 1 month Clarified that repeat diagnostic injections are allowable after an unsuccessful rf denervation under certain conditions Updated Contraindications section Added an Exclusions section, including lateral branch blocks and occipital nerve blocks Updated Frequency of Repeat Injections section Clarified lack of medical necessity of performing multiple pain procedures on same DOS

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

*National Imaging Associates, Inc.	
Clinical guidelines: Original Date: October 2012	
PARAVERTEBRAL FACET JOINT DENERVATION	
(RADIOFREQUENCY NEUROLYSIS)	
CPT Codes: Last Revised Date: May 2023	
Cervical Thoracic Region: 64633, +64634	
Lumbar Region: 64635, +64636	
Guideline Number: NIA_CG_302	Implementation Date: January 2024

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

INDICATIONS FOR PARAVERTEBRAL FACET JOINT DENERVATION/RADIOFREQUENCY NEUROLYSIS

See <u>Legislative Requirements</u> for specific mandates in the State of Washington

For the treatment of facet-mediated pain ALL of the following must be met:

- Lack of evidence that the primary source of pain being treated is from sacroiliac joint pain, discogenic pain, disc herniation or radiculitis^{1, 2}
- Pain causing functional disability or average pain level of > 6 on a scale of 0 to 10 $^{1-3}$
- Duration of pain of at least 3 months^{1, 3}
 - Positive response to at least one local anesthetic block of the facet joint nerves (medial branch blocks), with at least 70% pain relief or improved ability to function for a minimal duration at least equal to that of the local anesthetic, but with insufficient sustained relief (less than 2-3 months relief) ¹⁻³
 - Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented¹⁻³

NOTE: All procedures must be performed using fluoroscopic or CT guidance^{6, 7}

INDICATIONS FOR REPEAT PROCEDURES

Facet joint denervation procedures may be repeated only as medically necessary. <u>Each</u> denervation procedure requires an authorization, and the following criteria must be met for repeat procedures:

- Positive response to prior radiofrequency denervation procedures with at least 50% pain relief or improved ability to function for at least 4 months^{1, 3-5}
- The individual continues to have pain causing functional disability or average pain level ≥ 6 on a scale of 0-10¹-³
- The individual is engaged in ongoing non-operative conservative therapy* unless the medical reason this treatment cannot be done is clearly documented.^{1, 3-5}
- A maximum of 2 facet denervation procedures maybe be performed in a 12-month period per spinal region¹
 - Unilateral radiofrequency denervation's performed at the same level(s) on the right vs left within 1 month of each other would be considered as one procedure toward the total number of radiofrequency procedures allowed per 12 months. There is no minimum timeframe required between these procedures on the right vs left. Opposite side denervation procedures performed at the same level(s) within 1 month of the first side do not require follow-up information to be submitted.

NOTE: It is generally considered **not medically necessary** to perform multiple interventional pain procedures on the same date of service. Documentation of a medical reason to perform injections in different regions on the same day can be provided and will be considered on a case-by-case basis (e.g., holding anticoagulation therapy on two separate dates creates undue risk for the patient).

EXCLUSIONS

These requests are excluded from consideration under this guideline:

Radiofrequency denervation of the sacroiliac joint and/or sacral lateral branches (S1, S2, S3)

CONTRAINDICATIONS FOR FACET JOINT DENERVATION

- Active systemic or spinal infection
- Skin infection at the site of needle puncture

LEGISLATIVE REQUIREMENTS

- Washington
 - Washington State Health Care Authority Health Technology Assessment 20140321B – Facet Neurotomy⁸⁻¹⁰

Page **2** of **9**

Paravertebral Facet Joint Denervation (Radiofrequency Neurolysis)

- Lumbar Facet Neurotomy is a covered benefit with the following conditions:
 - Patient(s) must be over 17 years of age, and:
 - Has at least six months of continuous low back pain referable to the facet joint
 - The pain is non-radicular pain
 - Condition is unresponsive to other therapies including conservative care
 - There are no other clear structural cause of back pain
 - There is no other pain syndrome affecting the spine.
 - For identification, diagnosis, and treatment:
 - Patient must be selected by at least 80% improvement in pain after each of two differential medial branch blocks, one short-acting; one long-acting
 - One or two joints per each intervention, with documented, clinically significant improvement in pain and/or function for six months before further neurotomy at any level.
- Cervical Facet Neurotomy for cervical pain is a covered benefit with the following conditions:
 - Limited to C3 4, through C6 -7
 - Patient(s) over 17 years of age, and:
 - Has at least six months of continuous neck pain referable to the facet joint
 - The pain is non-radicular
 - Condition is unresponsive to other therapies including conservative care
 - There are no other clear structural cause of neck pain
 - No other pain syndrome affecting the spine
 - For identification, diagnosis, and treatment:
 - Patient must be selected by 100% improvement in pain after each of two differential medial branch blocks, one short-acting; one long-acting
 - One joint per each intervention, with documented, clinically significant improvement in pain and/or function for six months before further neurotomy at any level.
- Non-Covered Indicators
 - Facet Neurotomy for the thoracic spine is **not covered**.
 - Facet Neurotomy for headache is not covered.

 Washington State Health Care Authority oversees the Apple Health (Medicaid) program and the Public Employees Benefits Board (PEBB) Program.¹¹

BACKGROUND

Facet joints, (also called zygapophyseal joints or z-joints), posterior to the vertebral bodies in the spinal column and connecting the vertebral bodies to each other, are located at the junction of the inferior articular process of a more cephalad vertebra and the superior articular process of a more caudal vertebra. These joints provide stability and enable movement, allowing the spine to bend, twist, and extend in different directions. They also restrict hyperextension and hyperflexion.^{1, 12}

Facet joints are clinically important spinal pain generators in individuals with chronic spinal pain. In 15-45% individuals with chronic low back pain, facet joints have been implicated as a cause of the pain. Facet joints are considered as the cause of chronic spinal pain in 48% of individuals with thoracic pain and 54-67% of individuals with chronic neck pain. Facet joints may refer pain to adjacent structures, making the underlying diagnosis difficult as referred pain may assume a pseudoradicular pattern. Lumbar facet joints may refer pain to the back, buttocks, and lower extremities while cervical facet joints may refer pain to the head, neck, and shoulders.

Imaging findings are of little value in determining the source and location of 'facet joint syndrome', a term originally used by Ghormley¹⁴ in 1933, referring to back pain caused by pathology at the facet joints. Imaging studies may detect changes in facet joint architecture, but correlation between radiologic findings and symptoms is unreliable. Although clinical signs are also unsuitable for diagnosing facet joint-mediated pain, they may be of value in selecting individuals for controlled local anesthetic blocks of either the medial branches or the facet joint itself.¹⁵

Facet joints are known to be a source of pain with definitive innervations. Interventions used in the treatment of individuals with a confirmed diagnosis of facet joint pain include medial branch nerve blocks in the lumbar, cervical, and thoracic spine; and radiofrequency neurolysis (see additional terminology). The medial branch of the primary dorsal rami of the spinal nerves has been shown to be the primary innervations of facet joints. Substance P, a physiologically potent neuropeptide considered to play a role in the nociceptive transmission of nerve impulses, is found in the nerves within the facet joint. 1, 16, 17

Radiofrequency neurolysis is a minimally invasive treatment for cervical, thoracic, and lumbar facet joint pain. It involves using energy in the radiofrequency range to cause necrosis of specific nerves (medial branches of the dorsal rami), preventing the neural transmission of pain.

The objective of radiofrequency neurolysis is to both provide relief of pain and reduce the likelihood of recurrence.¹⁸

Members of the American Society of Anesthesiologists (ASA) and the American Society of Regional Anesthesia and Pain Medicine (ASRA) have agreed that conventional or thermal radiofrequency ablation of the medial branch nerves to the facet joint should be performed for neck or low back pain. Prior to performing this procedure, shared decision-making between patient and physician must occur, and the patient must understand the procedure and its potential risks and results.

OVERVIEW

THERAPEUTIC PARAVERTEBRAL FACET JOINT DENERVATION (RADIOFREQUENCY

NEUROLYSIS): Local anesthetic block is followed by the passage of radiofrequency current to generate heat and coagulate the target medial branch nerve. Traditional radiofrequency and cooled radiofrequency are included by this definition. Pulsed radiofrequency, cryo-ablation, or laser ablation are not included in this definition.

- *Conservative Therapy Non-operative treatment should include a multimodality approach consisting of a combination of active and inactive components. Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy. Active modalities should be region-specific (targeting the cervical, thoracic, or lumbar spine) and consist of physical therapy, a physician-supervised home exercise program**, or chiropractic care.^{3, 4, 20}
- **Home Exercise Program (HEP) The following two elements are required to meet guidelines for completion of conservative therapy:
 - Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor^{4, 5, 21}; **AND**
 - Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (e.g., increased pain or inability to physically perform exercises). Closure of medical offices, closure of therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" HEP.^{3, 4}

Terminology: Paravertebral Facet Joint Denervation, Radiofrequency Neurolysis, Destruction Paravertebral Facet Joint Nerve, Facet Joint Rhizotomy, Facet Neurolysis, Medial Branch Radiofrequency Neurolysis, Medial Branch Radiofrequency Neurotomy or Radiofrequency Denervation.

REFERENCES

- 1. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. Apr 2013;16(2 Suppl):S49-283.
- 2. Manchikanti L, Boswell MV, Singh V, et al. Comprehensive evidence-based guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician*. Jul-Aug 2009;12(4):699-802.
- 3. Summers J. International Spine Intervention Society Recommendations for treatment of Cervical and Lumbar Spine Pain. 2013.
- 4. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med.* Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
- 5. Sculco AD, Paup DC, Fernhall B, Sculco MJ. Effects of aerobic exercise on low back pain patients in treatment. *Spine J*. Mar-Apr 2001;1(2):95-101. doi:10.1016/s1529-9430(01)00026-2 6. Weininger M, Mills JC, Rumboldt Z, Bonaldi G, Huda W, Cianfoni A. Accuracy of CT guidance of lumbar facet joint block. *AJR Am J Roentgenol*. Mar 2013;200(3):673-6. doi:10.2214/ajr.12.8829
- 7. Amrhein TJ, Joshi AB, Kranz PG. Technique for CT Fluoroscopy-Guided Lumbar Medial Branch Blocks and Radiofrequency Ablation. *AJR Am J Roentgenol*. Sep 2016;207(3):631-4. doi:10.2214/ajr.15.15694
- 8. Health technology reviews: facet neurotomy. Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. http://hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/facet-neurotomy
- 9. Facet neurotomy. Washington State Health Care Authority. Updated May 16, 2014. Accessed September 22, 2022.
- http://hca.wa.gov/assets/program/052714_facet_final_findings_decision[1].pdf
- 10. Facet neurotomy: assessing signals for update. Washington State Health Care Authority. Updated May 28, 2020. Accessed September 22, 2022.
- http://hca.wa.gov/assets/program/facet-neurotomy-assessing-signals-update-20200528.pdf
- 11. About the Health Care Authority (HCA). Washington State Health Care Authority. Updated 2022. Accessed September 22, 2022. http://hca.wa.gov/about-hca
- 12. Kim BY, Concannon TA, Barboza LC, Khan TW. The Role of Diagnostic Injections in Spinal Disorders: A Narrative Review. *Diagnostics (Basel)*. Dec 9 2021;11(12)doi:10.3390/diagnostics11122311
- 13. 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;5:15-15. doi:10.1186/1471-2474-5-15
- 14. Ghormley RK. Low back pain: with special reference to the articular facets, with presentation of an operative procedure. *JAMA*. 1933;101(23):1773-1777.
- 15. Gellhorn AC, Katz JN, Suri P. Osteoarthritis of the spine: the facet joints. *Nat Rev Rheumatol*. 2013;9(4):216-224. doi:10.1038/nrrheum.2012.199

- 16. Kallakuri S, Li Y, Chen C, Cavanaugh JM. Innervation of cervical ventral facet joint capsule: Histological evidence. *World J Orthop*. Feb 18 2012;3(2):10-4. doi:10.5312/wjo.v3.i2.10
 17. Li W, Gong Y, Liu J, et al. Peripheral and Central Pathological Mechanisms of Chronic Low Back Pain: A Narrative Review. *J Pain Res*. 2021;14:1483-1494. doi:10.2147/jpr.S306280
 18. Lee DW, Pritzlaff S, Jung MJ, et al. Latest Evidence-Based Application for Radiofrequency Neurotomy (LEARN): Best Practice Guidelines from the American Society of Pain and Neuroscience (ASPN). *J Pain Res*. 2021;14:2807-2831. doi:10.2147/jpr.S325665
 19. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology*. Apr 2010;112(4):810-33.
- 20. American College of Radiology. ACR Appropriateness Criteria® Low Back Pain. American College of Radiology (ACR). Updated 2021. Accessed August 2, 2022. https://acsearch.acr.org/docs/69483/Narrative/
- 21. Durmus D, Unal M, Kuru O. How effective is a modified exercise program on its own or with back school in chronic low back pain? A randomized-controlled clinical trial. *J Back Musculoskelet Rehabil*. 2014;27(4):553-61. doi:10.3233/bmr-140481

doi:10.1097/ALN.0b013e3181c43103

POLICY HISTORY

Date	Summary
May 2023	Moved RFA to RFA requirements to "Repeat Procedure" section
May 2022	Added note to clarify when <u>INITIAL</u> injection requirements must be met for approval
	 Added region-specific wording to conservative treatment
	requirement (e.g., conservative therapy targeting the requested spinal region)
	Clarified average pain levels
	 Added Exclusions section, including Denervation of any nerves other than medial branch nerves (i.e., sacroiliac joint denervation, sacral lateral branch denervation, etc.)
	 Increased interval time frame from 2 weeks to 1 month for unilateral rf denervation's performed at same level
	 Increased interval time from 2 weeks to 1 month for 2nd side denervation procedures
	Updated Contraindication Section
	 Clarified lack of medical necessity of performing multiple pain procedures on same DOS

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

*National Imaging Associates, Inc.	
Clinical guidelines: SACROILIAC JOINT INJECTIONS	Original Date: January 2014
CPT Codes: 27096	Last Revised Date: May 2023
Guideline Number: NIA_CG_305	Implementation Date: January 2024

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

Note: Any injection performed at least two years from prior injections in the same region will be considered a new episode of care and the **INITIAL** injection requirements must be met for approval. Events such as surgery on the same spinal region or any new pathology would also prompt a new episode of care.

INDICATIONS FOR SACROILIAC JOINT (SIJ) INJECTIONS (Intraarticular or ligamentous injections only)

See Legislative Requirements for specific mandates in the State of Washington

For the treatment of Sacroiliac Joint (SIJ) pain ALL of the following must be met:

- Primarily axial low back pain (below level of L5) which may radiate to the groin or lower extremity¹
- Pain causing functional disability or average pain level of ≥ 6 on a scale of 0 to 10¹⁻³
- Positive exam findings to suggest the diagnosis, which include the pelvic (SI) distraction test, pelvic (SI) compression test, thigh thrust test, FABER (Patrick's test), posterior shear test, Yeoman's test, or Gaenslen's test^{4, 5}
- Duration of pain of at least 3 months
- Failure to respond to non-operative conservative therapy* targeting the requested spinal region for a minimum of 6 weeks in the last 6 months unless the medical reason this treatment cannot be done is clearly documented; OR details of active engagement in ongoing non-operative conservative non-operative therapy* if the individual has had prior spinal injections in the same region^{1, 2}

For the treatment of spondyloarthropathy⁶ ALL of the following must be met:

- The individual has experienced ≥ 3 months of low back pain
- Age of onset < 45 years
- Comprehensive pain management program is in place including physical therapy, home exercise, patient education, psychosocial support, and/or oral medication
- Prior history of evidence of sacroiliitis on imaging (i.e., active inflammation on magnetic resonance imaging [MRI] or definite radiographic sacroiliitis grade > 2 bilaterally or grade 3-4 unilaterally)
- 1 or more spondyloarthropathy features:
 - o Inflammatory back pain with at least 4 of the following criteria present:
 - Age at onset < 45 years
 - Insidious onset
 - Improvement with exercise
 - No improvement with rest
 - Pain at night (with improvement upon getting up)
 - Arthritis
 - Enthesitis of the heel (irritability of muscles, tendons, or ligaments where they enter the bone)
 - Uveitis (inflammation of the uvea, the middle layer of the eye)
 - Dactylitis (inflammation of a finger or toe)
 - Psoriasis
 - Crohn's/colitis
 - Good response to NSAIDs
 - Family history of spondyloarthropathy
 - Positive testing for HLA-B27
 - Elevated C-reactive protein (CRP)

NOTE: All procedures must be performed under imaging guidance⁷⁻¹⁰

INDICATIONS FOR REPEAT INJECTIONS

Sacroiliac joint injections may be repeated only as medically necessary. **Each** sacroiliac joint injection requires an authorization, and the following criteria must be met for repeat injections:

- Up to 2 sacroiliac joint injections may be performed in the initial treatment phase, no sooner than 2 weeks apart, provided that at least 50% pain relief or significant documented functional improvement is obtained¹
- Sacroiliac joint injections may only be repeated after the initial treatment phase if the individual has had at least 50% pain relief or significant documented functional improvement for a minimum of 2 months after each therapeutic injection¹
- The individual continues to have pain causing functional disability or average pain level \geq 6 on a scale of 0 to $10^{1-3, 11}$

- The individual is engaged in ongoing active conservative therapy*, unless the medical reason this treatment cannot be done is clearly documented^{2, 11, 12}
- For individuals that have received other interventional pain injections in the lumbar/sacral region (e.g., epidural steroid injection or facet joint injection) since the last SIJ injection, repeat positive provocative exam findings are required (pelvic distraction test, pelvic compression test, thigh thrust test, FABER (Patrick's test), posterior shear test, Yeoman's test, or Gaenslen's test).^{4,5}
- A maximum of 4 sacroiliac joint injections may be performed in a 12-month period¹

NOTE: It is generally considered **not medically necessary** to perform multiple interventional pain procedures on the same date of service. Documentation of a medical reason to perform injections in different regions on the same day can be provided and will be considered on a case-by-case basis (e.g., holding anticoagulation therapy on two separate dates creates undue risk for the patient).

EXCLUSIONS

These requests are excluded from consideration under this guideline:

- Sacral lateral branch blocks (S1, S2, S3)
- Radiofrequency denervation of the sacroiliac joint

CONTRAINDICATIONS FOR SACROILIAC JOINT INJECTIONS

- Active systemic or spinal infection
- Skin infection at the site of needle puncture

LEGISLATIVE REQUIREMENTS

Washington

- Washington State Health Care Authority Technology Assessment
- 20160318B Spinal Injections^{13, 14} Limitations of Coverage*:
 - Therapeutic sacroiliac joint injections for chronic pain is a covered benefit when all of the following conditions are met:
 - With fluoroscopic guidance or CT guidance
 - After failure of conservative therapy; and
 - No more than one without clinically meaningful improvement in pain and function, subject to agency review
 - Washington State Health Care Authority oversees the Apple Health (Medicaid) program and the Public Health Employees Benefits Board (PEBB) Program¹⁵

* This coverage policy does not apply to those with a known systemic inflammatory disease such as: ankylosing spondylitis, psoriatic arthritis or enteropathic arthritis.

BACKGROUND

This guideline addresses the use of sacroiliac joint injections for the treatment of low back pain that originates in the region of the sacroiliac joint (SIJ). An injection of anesthetic or steroid may be used for the diagnosis and treatment of SIJ pain syndrome disorders (such as degenerative joint disease, postsurgical injuries, or traumatic injuries), or for treatment of spondyloarthropathy (inflammatory disorders of the joints and ligaments of the spine).

Sacroiliac joint injections are typically used for the following conditions:

- Sacroiliac joint (SIJ) syndrome may be caused by various events, including pain secondary to postsurgical or traumatic injury, degeneration (wear and tear), or pregnancy. Physical examination (history and physical, provocative maneuvers) and diagnostic injection help to identify the source of pain as the SIJ.¹⁶⁻¹⁸
- **Diagnostic SIJ injections** are used to determine if the SIJ pain originates with the SIJ. Diagnostic blocks can reveal (or fail to reveal) that the source of pain is originating from the SIJ, and then an appropriate treatment plan can be developed.^{1, 19}
- Therapeutic SIJ injections may be used to treat SIJ pain once it has been determined that the SIJ is the origin of the pain. A therapeutic injection typically includes a corticosteroid and a local anesthetic that can be injected directly into the joint (intraarticular) or into the tissues surrounding the joint (periarticular).^{20, 21}
- Spondyloarthropathy (also known as spondyloarthritis) is the name for a family of rheumatic diseases that cause arthritis. Sacroiliitis is a key indicator of spondyloarthritis and is diagnosed with imaging. Individuals with spondyloarthropathy are generally managed by rheumatologists and account for only a small percentage of the cases that present in interventional pain management settings.²²⁻²⁴

OVERVIEW

*Conservative Therapy - Non-operative treatment should include a multimodality approach consisting of a combination of active and inactive components. Inactive components can include rest, ice, heat, modified activities, medical devices, acupuncture, stimulators, medications, injections, and diathermy. Active modalities should be region-specific and consist of physical therapy, a physician-supervised home exercise program**, or chiropractic care.^{2, 12, 12}

**Home Exercise Program (HEP) - The following two elements are required to meet guidelines for completion of conservative therapy:

- Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor^{12, 26, 27}; AND
- Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (e.g., increased pain or inability to physically perform exercises). Closure of medical offices, closure of therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" HEP.^{2, 12}

Telehealth visits have become routine in modern medical practice. However, sacroiliac joint injections cannot be performed via telehealth encounters. Individuals who can schedule an inperson encounter for injection are expected to also schedule an in-person encounter for provocative physical examination, prior to injection, in order to document the medical necessity of the joint injection.

Low back pain is one of the most common of all spinal pain problems. According to the Centers for Disease Control and Prevention (CDC), the prevalence of low back pain in adults 18 years of age and older is 28.4% and may range as high as 32.1% in adults \geq 75 years. ²⁸ Symptoms of low back pain may arise from multiple sites, including lumbar intervertebral discs, facet joints, sacroiliac joints, ligaments, fascia, muscles, and nerve root dura. The sacroiliac joint has been shown to be a source of pain in 10-30% of chronic low back pain. ^{1, 29-31}

The sacroiliac joint (SIJ) is located between the sacrum (located at the base of the spine) and the pelvis and supports the weight of the upper body in the standing position. SIJs are in both the right and left side of the lower back with strong ligaments holding the joints in place. The SIJ is well-innervated and is capable of being a source of low back pain and referred pain in the lower extremity. Low back pain originating from the SIJ can result from inflammatory conditions such as sacroiliitis, spondyloarthropathy (e.g., ankylosing spondylitis, rheumatoid spondylitis), or from postsurgical or traumatic injury, degeneration (wear and tear), or pregnancy. SIJ pain most often occurs in the buttocks and lower back and may radiate down through the buttocks and the leg. Physical examination and radiographic techniques may confirm a diagnosis related to spondyloarthropathy. Physical examination, including provocative maneuvers to elicit pain response, and controlled SIJ injections can help diagnose noninflammatory pain arising from the SIJ.^{29, 32-34}

To confirm correct placement of the injectable medication into the intra-articular space, fluoroscopic or computed tomography (CT) guidance is used.^{9, 35, 36} A periarticular injection into the soft tissue may be used if ligamentous or muscular attachments are suspected to be involved. The goal of the therapeutic injection is to reduce inflammation or pain and provide longer pain relief. Long-term relief is generally defined as 6 weeks or longer, but positive responders generally have a much longer duration of response; serial injections may be required in order to maintain therapeutic effectiveness.^{29, 37}

Spinal injections for the treatment of SIJ pain syndrome are typically performed as one part of a comprehensive treatment program, which will nearly always include an exercise program to

improve or maintain spinal mobility.^{17, 38} Potential candidates for SIJ injections include those with low back pain originating from the SIJ that is unresponsive to conservative treatments.

Treatment for SIJ pain depends upon the signs and symptoms, as well as the underlying cause for the pain. Medications, such as over-the-counter analgesics, a short course of narcotics, muscle relaxants or tumor necrosis factor (TNF) inhibitors, such as etanercept (Enbrel), adalimumab (Humira), or infliximab (Remicade), may be prescribed. Therapy sessions with a physical therapist involving range-of-motion, stretching, and strengthening exercises may be used to maintain joint flexibility and strengthen the muscles. Other interventional procedures used to treat SIJ pain include corticosteroid injections to reduce inflammation and pain, radiofrequency denervation, electrical stimulation, or in rare cases, joint fusion.³²

The indications for coverage for the treatment of spondyloarthropathy have been established through use of the reviewed clinical studies and through criteria developed by the Assessment of SpondyloArthritis International Society (ASAS) for the classification of axial spondyloarthritis.³⁹ They are in keeping with the benefit guidelines developed by the Centers for Medicare & Medicaid Services (CMS).⁴⁰

While evidence supports that SIJ injection is an effective method of determining the source of pain, evidence supporting the efficacy of SIJ in the treatment of SIJ pain syndrome is considerably limited. There are limited controlled or prospective clinical studies to support SIJ injection for therapeutic purposes. Despite the limited quality of the clinical studies supporting SIJ injection for the treatment of SIJ pain, the procedure is recommended by the American Society of Anesthesiologists (ASA) and the American Society of Regional Anesthesia and Pain Management (ASRAPM) Practice Guidelines.⁴¹ The indications for coverage have been established from the 2009 Comprehensive Evidence-Based Guidelines for Interventional Techniques in the Management of Chronic Spinal Pain³ and updated with the 2013 An Update of Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain. Part II: Guidance and Recommendations.¹

REFERENCES

- 1. Manchikanti L, Abdi S, Atluri S, et al. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part II: guidance and recommendations. *Pain Physician*. Apr 2013;16(2 Suppl):S49-283.
- 2. Summers J. International Spine Intervention Society Recommendations for treatment of Cervical and Lumbar Spine Pain. 2013.
- 3. Manchikanti L, Boswell MV, Singh V, et al. Comprehensive evidence-based guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician*. Jul-Aug 2009;12(4):699-802.
- 4. 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 Med.* Nov 1 2017;18(11):2081-2095. doi:10.1093/pm/pnx253
- 5. Telli H, Telli S, Topal M. The Validity and Reliability of Provocation Tests in the Diagnosis of Sacroiliac Joint Dysfunction. *Pain Physician*. Jul 2018;21(4):E367-e376.
- 6. American College of Rheumatology (ACR), Huston K. Spondyloarthritis. American College of Rheumatology. Updated March 2019. Accessed January 21, 2022. https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Spondyloarthritis
- 7. Schneider B, Patel J, Smith C. Ultrasound Guidance for Intra-articular Sacroiliac Joint Injections. *Pain Med.* Nov 1 2020;21(11):3233-3234. doi:10.1093/pm/pnaa248
- 8. 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*. Jun 2016;16(5):537-44. doi:10.1111/papr.12304
- 9. Jee H, Lee JH, Park KD, Ahn J, Park Y. Ultrasound-guided versus fluoroscopy-guided sacroiliac joint intra-articular injections in the noninflammatory sacroiliac joint dysfunction: a prospective, randomized, single-blinded study. *Arch Phys Med Rehabil*. Feb 2014;95(2):330-7. doi:10.1016/j.apmr.2013.09.021
- 10. Hofmeister M, Dowsett LE, Lorenzetti DL, Clement F. Ultrasound- versus fluoroscopy-guided injections in the lower back for the management of pain: a systematic review. *Eur Radiol*. Jul 2019;29(7):3401-3409. doi:10.1007/s00330-019-06065-3
- 11. Agency for Healthcare and Research Quality (AHRQ) National Guideline Clearinghouse. Low Back Pain Medical Treatment Guidelines. 2013.
- 12. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
- 13. Authority WSHC. Health Technology Assessment Spinal Injections. Washington State Health Care Authority. May 25, 2023. Updated May 20, 2016. Accessed May 25, 2023. https://www.hca.wa.gov/assets/program/spinal_injections-rr_final_findings_decision_060216.pdf

- 14. Authority WSHC. Health Technology Reviews Spinal Injections. Washington State Health Care Authority. Accessed May, 2023. https://www.hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/spinal-injections
- 15. Authority WHC. About the Health Care Authority (HCA). Washington Health Care Authority. May, 2023. Accessed May, 2023. https://www.hca.wa.gov/about-hca
- 16. Bronsard N, Pelletier Y, Darmante H, Andréani O, de Peretti F, Trojani C. Sacroiliac joint syndrome after lumbosacral fusion. *Orthop Traumatol Surg Res*. Oct 2020;106(6):1233-1238. doi:10.1016/j.otsr.2020.05.012
- 17. Javadov A, Ketenci A, Aksoy C. The Efficiency of Manual Therapy and Sacroiliac and Lumbar Exercises in Patients with Sacroiliac Joint Dysfunction Syndrome. *Pain Physician*. May 2021;24(3):223-233.
- 18. Barros G, McGrath L, Gelfenbeyn M. Sacroiliac Joint Dysfunction in Patients With Low Back Pain. *Fed Pract*. Aug 2019;36(8):370-375.
- 19. Curatolo M, Bogduk N. Diagnostic blocks for chronic pain. *Scand J Pain*. Oct 1 2010;1(4):186-192. doi:10.1016/j.sjpain.2010.07.001
- 20. Andalib A, Etemadifar M, Ansari Bardei M. Evaluation of Intra-articular Corticosteroid Injections in Patients with Sacroiliac Pain. *Adv Biomed Res.* 2022;11:13. doi:10.4103/abr.abr 100 20
- 21. Wu L, Tafti D, Varacallo M. Sacroiliac Joint Injection. StatPearls Publishing LLC. Updated February 12, 2022. Accessed April 22, 2022. https://www.ncbi.nlm.nih.gov/books/NBK513245/
- 22. Sen R, Goyal A, Hurley JA. Seronegative Spondyloarthropathy. StatPearls Publishing LLC. Updated July 25, 2021. Accessed April 26, 2022. https://pubmed.ncbi.nlm.nih.gov/29083692/
- 23. Haroon M, Ahmad M, Baig MN, Mason O, Rice J, FitzGerald O. Inflammatory back pain in psoriatic arthritis is significantly more responsive to corticosteroids compared to back pain in ankylosing spondylitis: a prospective, open-labelled, controlled pilot study. *Arthritis Res Ther*. Apr 17 2018;20(1):73. doi:10.1186/s13075-018-1565-4
- 24. Ma Z, Liu X, Xu X, et al. Safety of tumor necrosis factor-alpha inhibitors for treatment of ankylosing spondylitis: A meta-analysis. *Medicine (Baltimore)*. Jun 2017;96(25):e7145. doi:10.1097/md.0000000000007145
- 25. American College of Radiology. ACR Appropriateness Criteria® Low Back Pain. American College of Radiology (ACR). Updated 2021. Accessed November 10, 2021. https://acsearch.acr.org/docs/69483/Narrative/
- 26. Sculco AD, Paup DC, Fernhall B, Sculco MJ. Effects of aerobic exercise on low back pain patients in treatment. *Spine J*. Mar-Apr 2001;1(2):95-101. doi:10.1016/s1529-9430(01)00026-2 27. Durmus D, Unal M, Kuru O. How effective is a modified exercise program on its own or with back school in chronic low back pain? A randomized-controlled clinical trial. *J Back Musculoskelet Rehabil*. 2014;27(4):553-61. doi:10.3233/bmr-140481
- 28. Centers for Disease Control and Prevention (CDC). Health, United States, 2012 with special feature on emergency care. National Center for Health Statistics, U.S. Department of Health and Human Services. Updated May 2013. Accessed January 21, 2022. https://www.cdc.gov/nchs/data/hus/hus12.pdf

- 29. Hansen HC, McKenzie-Brown AM, Cohen SP, Swicegood JR, Colson JD, Manchikanti L. Sacroiliac joint interventions: a systematic review. *Pain Physician*. Jan 2007;10(1):165-84.

 30. Simopoulos TT, Manchikanti L, Singh V, et al. A systematic evaluation of prevalence and diagnostic accuracy of sacroiliac joint interventions. *Pain Physician*. May-Jun 2012;15(3):E305-
- 31. Chuang CW, Hung SK, Pan PT, Kao MC. Diagnosis and interventional pain management options for sacroiliac joint pain. *Ci Ji Yi Xue Za Zhi*. Oct-Dec 2019;31(4):207-210. doi:10.4103/tcmj.tcmj 54 19
- 32. Mayo Clinic. Sacroiliitis. Mayo Foundation for Medical Education and Research (MFMER). Updated 2022. Accessed January 21, 2022. https://www.mayoclinic.org/diseases-conditions/sacroiliitis/symptoms-causes/syc-20350747
- 33. Ma CB, Zieve D, Conaway B. Sacroiliac joint pain aftercare. National Library of Medicine, National Institutes of Health. Updated November 12, 2020. Accessed January 21, 2022. https://medlineplus.gov/ency/patientinstructions/000610.htm
- 34. Dydyk AM, Forro SD, Hanna A. Sacroiliac Joint Injury. StatPearls Publishing LLC. Updated August 4, 2021. Accessed April 21, 2022. https://www.ncbi.nlm.nih.gov/books/NBK557881/35. Paik NC. Intraarticular Sacroiliac Joint Injection Under Computed Tomography Fluoroscopic Guidance: A Technical Note to Reduce Procedural Time and Radiation Dose. *Cardiovasc Intervent Radiol*. Jul 2016;39(7):1057-60. doi:10.1007/s00270-015-1268-z
- 36. Bessar AAA, Arnaout MM, Basha MAA, Shaker SE, Elsayed AE, Bessar MA. Computed tomography versus fluoroscopic guided-sacroiliac joint injection: a prospective comparative study. *Insights Imaging*. Mar 18 2021;12(1):38. doi:10.1186/s13244-021-00982-y
- 37. Hansen H, Manchikanti L, Simopoulos TT, et al. A systematic evaluation of the therapeutic effectiveness of sacroiliac joint interventions. *Pain Physician*. May-Jun 2012;15(3):E247-78.
- 38. Nejati P, Safarcherati A, Karimi F. Effectiveness of Exercise Therapy and Manipulation on Sacroiliac Joint Dysfunction: A Randomized Controlled Trial. *Pain Physician*. Jan 2019;22(1):53-61.
- 39. Sieper J, Rudwaleit M, Baraliakos X, et al. The Assessment of SpondyloArthritis international Society (ASAS) handbook: a guide to assess spondyloarthritis. *Ann Rheum Dis*. Jun 2009;68 Suppl 2:ii1-44. doi:10.1136/ard.2008.104018
- 40. National Government Services. LCD L33622: Pain Management. Centers for Medicare & Medicaid Services (CMS). Updated June 24, 2020. Accessed April 26, 2022.
- https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdld=33622&ver=27
- 41. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology*. Apr 2010;112(4):810-33. doi:10.1097/ALN.0b013e3181c43103

44.

POLICY HISTORY

Date	Summary
May 2023	Adjusted time interval for repeat injections from minimum of 6
	weeks to 2 months after each injection
	Added Washington State Legislative Language
May 2022	Added note to clarify when <u>INITIAL</u> injection requirements must be met for approval
	Reorganized indications for clarity and uniformity
	Added region-specific wording to conservative treatment
	requirement (e.g., conservative therapy targeting the requested spinal region)
	 For consistency among guidelines, changed wording and order of contraindications to injections
	 Add US guidance for injections as option (in addition to fluoroscopic or CT guidance)
	 Under treatment of spondyloarthropathy, replaced 'or' with 'and' in list of required components of a comprehensive pain management program
	Updated Frequency of Repeat Injections section
	 Clarified lack of medical necessity of performing multiple pain procedures on same DOS
	Updated Contraindications

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.