Cohere Medical Policy - Epidural Steroid Injections (ESI)

Clinical Guidelines for Medical Necessity Review

Version: 4
Effective Date: December 19. 2024

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice.

Other Notices:

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medical Policy - Epidural Steroid Injection (ESI)
Date of last literature review: 11/5/2024
Document last updated: 12/19/2024
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17yo)

Table of Contents

Medical Necessity Criteria

Service: Epidural Steroid Injections (ESI)

Recommended Clinical Approach

Epidural steroid injections (ESIs) are used to treat radicular back and neck pain when conservative and noninvasive treatments fail. ESI involves the administration of an anesthetic and/or steroid in the epidural space of the spinal cord to treat inflammation that affects nerve roots. Three approaches for ESI include (1) Interlaminar or translaminar, (2) caudal, and (3) transforminal.[1] ESI should be performed using radiographic image guidance. This guideline does not apply to epidural, spinal injections performed for perioperative pain management, or intrathecal, epidural injections done to assess candidacy for intrathecal pump

Medical Necessity Criteria

Indications

- ➔ An **epidural steroid injection (ESI)** is considered appropriate if **ANY** of the following is **TRUE**[2-16,19]:
  - ◆ The injection is a diagnostic, transforaminal ESI or diagnostic selective nerve root block (SNRB) to identify the cause of pain for surgical planning, and **ALL** of the following are met:
    - The pain is causing a functional or vocational disability, or pain levels of greater than or equal to 4 on a scale of 0 to 10; **AND**
    - Documentation of a preoperative evaluation and plan for surgery; **OR**
  - ◆ **ALL** of the following are **TRUE**:
    - The patient has **ANY** of the following:
      - Acute herpes zoster; **OR**
      - Postherpetic neuralgia that has failed or had adverse side effects with trial of neuropathic medications; **AND**

- The patient has received no more than 6 ESIs over 12 consecutive months[16]; **OR**

◆ The patient has radicular pain or neurogenic claudication and **ALL** of the following are **TRUE**:
- Findings are consistent with radicular symptoms or neurogenic claudication (e.g., history, signs and symptoms, or physical exam); **AND**
- The patient has undergone advanced imaging (CT scan or MRI) that demonstrates findings consistent with ANY of the following:
  - Radicular symptoms that correlate to the side requested (e.g., spinal stenosis, foraminal stenosis, neural impingement, disc herniation, advanced degenerative changes, postlaminectomy changes etc.); **OR**
  - Neurogenic claudication; **AND**
- **ALL** of the following are **TRUE**:
  - The patient's pain level is greater than or equal to 4 out of 10 on a scale of 0 to 10; **AND**
  - The pain is causing a functional or vocational disability; **AND**
- **ANY** of the following:
  - **ALL** of the following:
    - ◆ The injection is for acute radicular pain secondary to acute disc herniation; **AND**
    - ◆ Failure of conservative management for greater than 2 weeks, including anti-inflammatory medications, analgesics, or prescription medications (e.g., oral steroids, narcotics, neuropathic pain medications); **OR**
  - The injection is an initial ESI injection with failure of conservative management, defined by **ALL** of the following:
    - ◆ Greater than 6 weeks duration; **AND**
    - ◆ Anti-inflammatory medications, analgesics, or prescription medications (e.g., oral steroids, narcotics, neuropathic pain medications) if not contraindicated; **AND**

        - Physical therapy; **OR**
    - A second ESI when **ALL** of the following are **TRUE**:
        - The initial injection has failed; **AND**
        - The injection is planned with a different approach, level, or medication type; **OR**
    - The injection is a repeat ESI, and **ALL** of the following are **TRUE**:
        - The most recent ESI injection resulted in **ALL** of the following:
            - 50% or greater pain or symptom relief; **AND**
            - The pain or symptom relief lasted greater than or equal to 2 months duration; **AND**
        - The patient is participating in ongoing rehabilitative approaches (e.g., physical therapy, chiropractic care, or physician-guided home exercise program); **AND**
        - No more than 4 injections are given per rolling 12-month period per spinal region.

Non-Indications

- ➔ **Epidural steroid injection (ESI)** is not considered appropriate if **ANY** of the following is **TRUE**[15-16]:
    - Transforaminal epidural steroid injections [TFESIs] at more than 2 nerve roots (more than 1 spinal level when bilateral or more than 2 spinal levels when unilaterally)[16]; **OR**
    - Presence of **ANY** of the following[16]:
        - Non-specific low back pain (LBP); **OR**
        - Myelopathy; **OR**
        - Cauda equina syndrome; **OR**
        - Rapidly progressing neurological deficit; **OR**
        - Epidural abscess; **OR**
    - ESIs are performed at multiple anatomical regions during the same date of service; **OR**
    - ESIs performed with biologics (e.g., platelet-rich plasma, stem cells, amniotic fluid, etc.)[16]; **OR**

- ESI is performed with ultrasound image guidance (except for injections performed during pregnancy) where it would be reasonable to avoid radiographs[16]; **OR**
- ESI injection is performed without fluoroscopy or computed tomography (CT) guidance[20]; **OR**
- Allergy or sensitivity to local anesthetics or other medications; **OR**
- When other types of spine injections (e.g., facet, sacroiliac joint injections, ESIs to other spinal regions etc.) are performed on the same date of service, unless medical necessity to perfrom multiple injections is documented in chart (e.g., risk of holding anticoagulant multiple times, presence of facet cyst causing radicular symptoms for which ESI and facet injection can be allowed at the same time, etc.); **OR**
- ESIs performed for perioperative pain management; **OR**
- Intrathecal ESIs done to assess candidacy for intrathecal pump; **OR**
- A series of ESIs are included in a single request.

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
62320	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; without imaging guidance
62321	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; with imaging guidance (ie, fluoroscopy or CT)

62322	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance
62323	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (ie, fluoroscopy or CT)
64479	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), cervical or thoracic, single level
64480	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), cervical or thoracic, each additional level (List separately in addition to code for primary procedure)
64483	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), lumbar or sacral, single level
64484	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), lumbar or sacral, each additional level (List separately in addition to code for primary procedure)
64999	Unlisted procedure, nervous system

Medical Evidence

The Centers for Medicare and Medicaid Services (CMS) (2023) published *Local Coverage Determination (LCD) Epidural Steroid Injections (ESIs) for Pain Management (L39036).* The LCD includes several recommendations and non-indications for ESIs for radiculopathy and pain related to the spine, including Grade A recommendations for (i) contrast-enhanced fluoroscopy to guide ESIs for improved accuracy of delivery and (ii) transforaminal ESIs in patients with lumbar disc herniations with radiculopathy.[16]

Kreiner et al. (2014) developed a clinical guideline for the North American Spine Society (NASS) to diagnose and treat lumbar disc herniation. Twenty-nine questions and recommendations resulted from this effort, including a Grade A recommendation for use of contrast-enhanced fluoroscopy in the routine performance of ESIs; a Grade A recommendation for ESI in treatment of lumbar disc herniation with radiculopathy; no recommendation given for optimal frequency or quantity of injections; and insufficient evidence found to make a recommendation for or against the 12-month efficacy of transforaminal ESI in lumbar disc herniation with radiculopathy.[16]

Manchikanti et al. (2012) conducted a randomized, double-blind, active-control trial. Patients with a diagnosis of disc herniation, radiculitis, facet joint pain, or sacroiliac joint pain were excluded. The two groups of subjects received local anesthetic only or local anesthetic mixed with non-particulate betamethasone. Success was to be measured by a greater than 50% decrease in pain and disability, and the outcome was 77% in the local anesthetic-only group and 67% in the local anesthetic mixed with non-particulate betamethasone.[10]

In a systematic review, Kim et al. (2011) tested the hypothesis that dexamethasone phosphate (DP) and methylprednisolone acetate (MPA) would achieve similar outcomes when used in the treatment of lumbar radiculopathy by epidural injection. The study determined that, when compared with particulate methylprednisolone, nonparticulate dexamethasone appeared to be close in safety and effectiveness.[8]

Furman et al. (2010) conducted a prospective, single-arm, pilot, observational study. Inclusion criteria included patients with lumbar radicular pain, and exclusion criteria included the presence of irreversible psychological barriers or anatomical anomalies. The group concluded that subjects undergoing fluoroscopic-guided, contrast-enhanced lumbar interlaminar epidural steroids for primarily radicular pain versus axial pain experienced at least a 3-month improvement on the Numeric Pain Rating Scale (NPRS).[7]

Ahmed et al. (2023) conducted a systematic meta-analysis of randomized controlled trials to compare ultrasonography (USG) guidance and conventional fluoroscopy (FL) guidance for ESI in the treatment of radiculopathy. Of the 7 RCTs included in the meta-analysis, the authors found no statistically significant difference in pain reduction between USG and FL groups in lumbosacral ESIs at 1 and 3 months. Functional improvement after ESIs was comparable between the groups. The risk of inadvertent vascular puncture in USG-guided ESIs was lower compared to conventional FL-guided ESIs [odds ratio 0.21 (0.07, 0.64)], and the procedure time in the USG group was significantly lower compared to the FL group.[17]

Mahmoud et al. (2024) conducted a systematic review and meta-analysis comparing different ESI approaches with the aim of investigating the effectiveness of various ESI procedures in adults with lower back pain. The authors concluded that a transforaminal (TF) ESI approach was most effective in decreasing pain indices (visual analog score [VAS] and Oswestery disability index [ODI]) in the long term. The authors also found that a parasagittal intralaminar (PIL) approach was most effective in decreasing VAS in the short term (less than 6 months).[18]

Yang et al. (2020) performed a meta-analysis of 6 RCTs to compare the clinical effectiveness of ESI to conservative treatments for patients with lumbosacral radicular pain, including physical therapy, lifestyle modifications, exercise, and patient education. The meta-analysis included 490 adult patients; 249 patients received ESI, and 241 received conservative treatment. The patients had a confirmed diagnosis of lumbar disc herniation or spinal stenosis. Pooled analysis of pain scores at short-term and intermediate follow-ups for 3 RCTs demonstrated a significant reduction in pain for ESI as compared to conservative treatments. Long-term follow-up for 2 RCTs showed comparable effectiveness of ESI and conservative treatments. Pooled

analysis showed that ESI had a significantly higher number of successful events when compared to conservative treatments.[1]

References

1. Yang S, Kim W, Kong HH, et al. Epidural steroid injection versus conservative treatment for patients with lumbosacral radicular pain: A meta-analysis of randomized controlled trials. *Medicine (Baltimore)*. 2020 Jul 24;99(30):e21283. Doi: 10.1097/MD.0000000000021283. PMID: 32791709; PMCID: PMC7386972.
2. Ackerman WE III, Ahmad M. The efficacy of lumbar epidural steroid injections in patients with lumbar disc herniations. *Anesth Analg.* 2007;104(5):1217-22. doi: 10.1213/01.ane.0000260307.16555.7f. PMID: 17456677.
3. Arden NK, Price C, Reading I, et al. A multicentre randomized controlled trial of epidural corticosteroid injections for sciatica: The WEST study. *Rheumatology (Oxford).* 2005;44(11):1399–1406. doi: 10.1093/rheumatology/kei028. PMID: 16030082.
4. Briggs VG, Li W, Kaplan MS, et al. Injection treatment and back pain associated with degenerative lumbar spinal stenosis in older adults. *Pain Physician.* 2010;13(6):E347-55. PMID: 21102972. Erratum in: *Pain Physician*. 2011 Mar-Apr;14(2):217.
5. Buttermann GR. The effect of spinal steroid injections for degenerative disc disease. *Spine J.* 2004;4(5):495-505. doi: 10.1016/j.spinee.2004.03.024. PMID: 15363419.
6. Candido KD, Raghavendra MS, Chinthagada M, et al. A prospective evaluation of iodinated contrast flow patterns with fluoroscopically guided lumbar epidural steroid injections: The lateral parasagittal interlaminar epidural approach versus the transforaminal epidural approach. *Anesth Analg.* 2008;106(2):638-44. doi: 10.1213/ane.0b013e3181605e9b. PMID: 18227326.
7. Furman MB, Kothari G, Parikh T, et al. Efficacy of fluoroscopically guided, contrast-enhanced lumbosacral interlaminar epidural steroid injections: A pilot study. *Pain Med.* 2010;11(9):1328-34. doi: 10.1111/j.1526-4637.2010.00926.x. PMID: 20667021.
8. Kim D, Brown J. Efficacy and safety of lumbar epidural dexamethasone versus methylprednisolone in the treatment of lumbar radiculopathy: A comparison of soluble versus particulate steroids. *Clin J Pain.* 2011;27(6):518-522. doi: 10.1097/AJP.0b013e31820c53e0. PMID: 21562412.
9. Lee JH, Moon J, Lee SH. Comparison of effectiveness according to different approaches of epidural steroid injection in lumbosacral

herniated disk and spinal stenosis. *J Back Musculoskelet Rehabil.* 2009;22(2):83-89. doi: 10.3233/BMR-2009-0220. PMID: 20023335.
10. Manchikanti L, Cash KA, McManus CD, et al. Fluoroscopic lumbar interlaminar epidural injections in managing chronic lumbar axial or discogenic pain. *J Pain Res.* 2012;5:301-11. doi: 10.2147/JPR.S32699. PMID: 23055773.
11. Manchikanti L, Cash KA, McManus CD, et al. Preliminary results of a randomized, double-blind, controlled trial of fluoroscopic lumbar interlaminar epidural injections in managing chronic lumbar discogenic pain without disc herniation or radiculitis. *Pain Physician.* 2010;13(4):E279-92. PMID: 20648214.
12. Manchikanti L, Cash KA, McManus CD, et al. Fluoroscopic caudal epidural injections with or without steroids in managing pain of lumbar spinal stenosis: One-year results of randomized, double-blind, active-controlled trial. *J Spinal Disord Tech.* 2012;25(4):226-34. doi: 10.1097/BSD.0b013e3182160068. PMID: 22652990.
13. Park CH, Lee SH, Kim BI. Comparison of the effectiveness of lumbar transforaminal epidural injection with particulate and nonparticulate corticosteroids in lumbar radiating pain. *Pain Med.* 2010;11(11):1654–1658. doi: 10.1111/j.1526-4637.2010.00941.x. PMID: 20807343.
14. Rados I, Sakic K, Fingler M, et al. Efficacy of interlaminar vs transforaminal epidural steroid injection for the treatment of chronic unilateral radicular pain: Prospective, randomized study. *Pain Med.* 2011;12(9):1316-21. doi: 10.1111/j.1526-4637.2011.01213.x.
15. Centers for Medicare and Medicaid Services (CMS). Local coverage determination (LCD) - epidural steroid injections for pain management (L39036). Effective November 23, 2023. Accessed November 7, 2024. https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=39036&ver=15&=.
16. Kreiner DS, Hwang SW, Easa JE, et al. An evidence-based clinical guideline for the diagnosis and treatment of lumbar disc herniation with radiculopathy. *Spine J*. 2014;14(1):180-191. doi: 10.1016/j.spinee.2013.08.003. PMID: 24239490.
17. Ahmed M, Ahmad A, Arshad M, et al. Ultrasound-guided versus conventional fluoroscopy-guided epidural injection for radiculopathy. A meta-analysis of randomized controlled trials. World Neurosurg. 2023;180:203-212.e4. Doi: 10.1016/j.wneu.2023.09.088. PMID: 37774791.

18. Mahmoud AM, Shawky MA, Farghaly OS, et al. A systematic review and network meta-analysis comparing different epidural steroid injection approaches. Pain Pract. 2024;24(2):341-363. Doi: 10.1111/papr.13297. PMID: 37700550.
19. 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*. 2021;24(S1):S27-S208. PMID: 33492918.
20. Kennedy DJ, Engel A, Kreiner DS, et al. Fluoroscopically guided diagnostic and therapeutic intra-articular sacroiliac joint injections: a systematic review. *Pain Med*. 2015 Aug;16(8):1500-18. doi: 10.1111/pme.12833. PMID: 26178855.

Clinical Guideline Revision History/Information

Original Date: April 21, 2021		
Review History		
Version 2	12/29/2023	
Version 3	9/20/2024	Updated language regarding conservative treatment.
Version 4	12/19/2024	• Annual review • Aligned to current policy guidelines. • Updated medical evidence section. • References updated. • CPT codes and descriptions updated; temporary codes deleted • Updated indications and non-indications for clarity and ease of conversion to rules.