

Clinical Policy: Selective Nerve Root Blocks and Transforaminal Epidural Steroid Injections

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Description

Transforaminal epidural steroid injections (TFESIs) and selective nerve root blocks (SNRBs) are alternatives to interlaminar epidural steroid injections for the treatment of radicular pain. SNRBs consist of a small amount of local anesthetic injected adjacent to a spinal nerve root and are most often used to diagnose the source of pain.¹ During a TFESI, a larger amount of local anesthetic or corticosteroid is injected into the intervertebral foramen, where the injectate spreads to target multiple nerves. SNRBs and TFESIs share similar safety considerations, procedural techniques, and anatomical benchmarks.¹

Note: For guidelines for caudal or interlaminar epidural steroid injections (ESIs), reference *PA.CP.MP.164 Caudal or Interlaminar Epidural Steroid Injections*.

Policy/Criteria

It is the policy of PA Health and Wellness® (PHW) that invasive pain management procedures performed by a physician are **medically necessary** when *the relevant criteria are met and only one procedure is performed per visit, with radiographic guidance*.

Note: Discontinuing anticoagulation therapy or anti-platelet therapy is a clinical decision balancing risks and benefits of the procedure on therapy, versus the underlying medical condition if not treated appropriately.

I. Selective Nerve Root Blocks (SNRB)

A. *One SNRB for acute pain management* (pain lasting < three months) is considered **medically necessary** when all of the following are met:

1. There is severe radicular pain in a specific nerve root distribution that interferes substantially with activities of daily living (ADLs);
2. Severe pain persists after treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) and/or opiate (both \geq three days or contraindicated/not tolerated);
3. Cannot tolerate chiropractic or physical therapy, and the injection is intended as a bridge to therapy.

B. *One SNRB for chronic pain* is considered **medically necessary** to establish a diagnosis and confirm beneficial response when all the following criteria are met:

1. Request is for an SNRB with a local anesthetic at a single nerve root;
2. Persistent radicular pain in a defined nerve root level, and the diagnosis remains uncertain after standard evaluation (neurologic examination, radiological studies and electrodiagnostic studies);
3. Pain interferes with ADLs and has lasted for at least three months;
4. Failure to respond to conservative therapy, including all of the following:
 - a. \geq four weeks chiropractic, physical therapy or prescribed home exercise program;
 - b. NSAIDs \geq three weeks or NSAID contraindicated or not tolerated;

- c. \geq four weeks activity modification.
- C. *A second SNRB for chronic pain* is considered **medically necessary** when multilevel pathology is suspected, and it has been at least two weeks since the prior injection.
- D. *SNRBs* are considered **not medically necessary** for any other indication because effectiveness has not been established.

II. Transforaminal Epidural Steroid Injections (TFESI)

- A. *One TFESI for acute pain management* (pain lasting < three months) is considered **medically necessary** when all of the following are met:
 - 1. There is severe radicular pain in a specific nerve root distribution that interferes substantially with ADLs;
 - 2. If a cervical TFESI is requested, non-particulate steroid must be used (see Table 1), and the procedure must be conducted with real-time imaging, such as fluoroscopy;
 - 3. Severe pain persists after treatment with NSAID and/or opiate (both \geq three days or contraindicated/not tolerated);
 - 4. Cannot tolerate chiropractic or physical therapy, and the injection is intended as a bridge to therapy.
- B. *One TFESI for chronic pain* is considered **medically necessary** when all of the following are met:
 - 1. TFESI is requested for a single level bilaterally or up to two levels unilaterally;
 - 2. If a cervical TFESI is requested, non-particulate steroid must be used (see Table 1), and the procedure must be conducted with real-time imaging, such as fluoroscopy;
 - 3. There is persistent radicular pain caused by disc herniation in a defined nerve root level, or spinal stenosis confirmed by physical exam and imaging;
 - 4. Pain interferes with ADLs and has lasted for at least three months;
 - 5. Failure to respond to conservative therapy including all of the following:
 - a. \geq four weeks chiropractic, physical therapy or prescribed home exercise program;
 - b. NSAID \geq three weeks or NSAID contraindicated or not tolerated;
 - c. \geq four weeks activity modification.
- C. *A second TFESI for chronic pain that did not improve from the initial injection* is considered **medically necessary** when meeting all of the following:
 - 1. Request is for a TFESI at one level bilaterally or up to two levels unilaterally;
 - 2. If a cervical TFESI is requested, non-particulate steroid must be used (see Table 1), and the procedure must be conducted with real-time imaging, such as fluoroscopy;
 - 3. At least two weeks have passed since the first TFESI;
- D. *Subsequent TFESIs for recurrence of chronic pain that had improved from the first or second TFESI* are considered **medically necessary** with all of the following:
 - 1. The TFESI is requested at a single level bilaterally or up to two levels unilaterally;
 - 2. If a cervical TFESI is requested, non-particulate steroid must be used (see Table 1), and the procedure must be conducted with real-time imaging, such as fluoroscopy;

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3. There was $\geq 50\%$ relief and functional improvement for at least three months since the last injection;
4. Less than four injections have been given at the same site within 12 months;
5. Less than 12 months have elapsed since the initial injection at the level requested;

E. *Continuation of injections beyond 12 months or more than 4 therapeutic injections* is considered **not medically necessary** because effectiveness and safety has not been established. When more definitive therapies cannot be tolerated or provided, consideration will be made on a case-by-case basis.

F. *TFESIs for any other indication* are considered **not medically necessary** because effectiveness has not been established.

Table 1: Particulate and Non-Particulate Steroids			
Particulate		Non-Particulate	
Generic	Brand	Generic	Brand
Betamethasone acetate	Celestone Soluspan, Betaject	Dexamethasone	Decadron, Adrenocot, Decajec
Methylprednisolone acetate	Depo-Medrol, Solu-Medrol, Duralone, Medralone	Betamethasone sodium phosphate	N/A
Triamcinolone acetonide	Kenalog	Dexamethasone palmitate	N/A
The distinction between particulate and non-particulate is based on studies looking at particle aggregation size relative to a red blood cell.			

Background

Epidural steroid injections/selective nerve root blocks

There is great controversy regarding the effectiveness of invasive interventions for spinal pain. Epidural glucocorticoid injections have been used for pain control in patients with radiculopathy, spinal stenosis, and nonspecific low back pain despite inconsistent results as well as heterogeneous populations and interventions in randomized trials. Epidural injections are performed utilizing three approaches in the lumbar spine: caudal, interlaminar, and transforaminal. Generally, candidates for epidural steroid injection are individuals who have acute radicular symptoms or neurogenic claudication unresponsive to traditional analgesics and rest, with significant impairment in activities of daily living. Epidural steroid injections have been used in the treatment of spinal stenosis for many years, and no validated long-term outcomes have been reported to substantiate their use. However, significant improvement in pain scores have been reported in short-term outcomes up to three months after injection.² A selective nerve root block (SNRB) is primarily used to diagnose the specific source of nerve root pain. In a SNRB, a local anesthetic is used. When used for therapeutic indications, a steroid is added, and it is usually referred to as a selective transforaminal epidural steroid injection.

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A 2015 meta-analysis was conducted to assess the effects of various surgical and nonsurgical modalities, including epidural injections, used to treat lumbar disc herniation (LDH) or radiculitis.³ A systematic literature search was conducted to identify RCTs which compared the effect of local anesthetic with or without steroids. The outcomes included pain relief, functional improvement, opioid intake, and therapeutic procedural characteristics. The reviewers concluded that the meta-analysis confirms that epidural injections of local anesthetic with or without steroids have beneficial but similar effects in the treatment of patients with chronic low back and lower extremity pain.³

Results of a two-year follow-up of three randomized, double-blind, controlled trials, with a total of 360 patients with chronic persistent pain of disc herniation receiving either caudal, lumbar interlaminar or transforaminal epidural injections, showed similar efficacy of the three techniques with local anesthetic alone or local anesthetic with steroid.⁴ Interlaminar injections with steroids were superior to transforaminal at 12 months.⁴

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2024, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
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 and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level
64484	Injection(s), anesthetic agent 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)

Reviews, Revisions, and Approvals	Revision Date	Approval Date
New policy developed. Split from retired CP.MP.118 Injections for Pain Management. No criteria change.	09/18	10/18
Revised frequency interval of TFESI in II.D.3 to at least 2 months apart. Reference reviewed and updated. Anticoagulation indication moved to policy/criteria section as it is applicable to all injections in this policy. Minor wording changes to match ESI clinical policy.	12/19	

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Reviews, Revisions, and Approvals	Revision Date	Approval Date
Removed the following codes from the policy as they relate to cervical spine: CPT-64479, 64480. ICD10-G56.00-G56.93, M50.00-M50.93, M54.12, M54.13, Specialist review		
Removed restriction of TFESI to lumbar region. Added CPT codes: 64479 and 64480. Added ICD-10 codes: G56.00-G56.93, M50.00-M50.93, M54.12, M54.13. Added the statement to all TFESI indications that for cervical TFESI, non-particulate steroid must be used and the procedure must be conducted with real-time imaging, such as fluoroscopy. Revised the not medically necessary statement regarding TFESI for all other indications and locations to only note all other indications. Clarified criteria in II.B, C, and D.1 that a request for TFESI is for one level bilaterally or up to two levels unilaterally. References reviewed and updated. Minor revision to description of CPT 64479, 64480, 64483 and 64484. Replaced “member” with “participant/enrollees/enrollee” in the disclaimer.	6/2021	
Annual review. References reviewed and updated. In policy statement, removed option for procedures “without radiographic guidance.” Reviewed by specialist. Changed “Last Review Date” in header to “Date of Last Revision” and changed “Date” in Revision log to “Revision Date”.		
Annual review. Criteria updated with grammatical and abbreviation changes. Background updated with no impact on criteria. Dashes removed from code ranges. ICD-10 Code table removed. Minor edits with no clinical significance. References reviewed and updated. Reviewed by internal specialist.	09/2023	10/11/2023
Annual review. In I.B.4.a. and c. and II.B.5.a. and c. changed duration from six weeks to four weeks. Added Table 1 to give examples of particulate and non-particulate steroids. References reviewed and updated. Reviewed by external specialist.	07/2024	09/2024
Annual review. Added note in Description regarding policy for caudal or interlaminar epidural steroid injections. Removed anticoagulation therapy requirement in Criteria and added anticoagulation therapy as a note in Criteria. Updated Criteria II.D.3. from two months to three months regarding relief and functional improvement. Removed Criteria II.D.4. regarding length of time since last transforaminal epidural steroid injection (TFESI). Coding and descriptions reviewed. References reviewed and updated. Reviewed by internal specialist.	07/2025	

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