

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

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[Coding Implications](#)

[Revision Log](#)

### 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.<sup>1</sup> 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.<sup>1</sup>

### Policy/Criteria

It is the policy of Pennsylvania Health and Wellness<sup>®</sup> that invasive pain management procedures performed by a physician are **medically necessary** when *the relevant criteria are met and the patient receives only one procedure per visit, with or without radiographic guidance.*

#### I. Selective Nerve Root Blocks

- A. *One selective nerve root block (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. There is 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 activities of daily living (ADLs) and has lasted for at least 3 months;
  4. The member has failed to respond to conservative therapy including all of the following:
    - a.  $\geq 6$  weeks chiropractic, physical therapy or prescribed home exercise program;
    - b. Nonsteroidal anti-inflammatory drugs (NSAID)  $\geq 3$  weeks or NSAID contraindicated or not tolerated;
    - c.  $\geq 6$  weeks activity modification;
  5. The member is not currently being treated with full anticoagulation therapy. For patients on warfarin, international normalized ratio (INR) should be  $\leq 1.4$  prior to the procedure.-  
Discontinuing 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;
  6. Absence of systemic infection or local infection at the site of a planned injection.
- B. *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.

- C. *One SNRB for acute pain management* is considered **medically necessary** when all of the following are met:
1. Pain has lasted for < 3 months;
  2. There is severe radicular pain in a specific nerve root distribution that interferes substantially with ADLs;
  3. Severe pain persists after treatment with NSAID and/or opiate (both  $\geq 3$  days or contraindicated/not tolerated);
  4. The member cannot tolerate chiropractic or physical therapy and the injection is intended as a bridge to therapy.
- D. *SNRBs* are considered **not medically necessary** for any other indication because effectiveness has not been established.

## II. Transforaminal Epidural Steroid Injections

- A. *One transforaminal epidural steroid injection (TFESI) for chronic pain* in the lumbar region is considered **medically necessary** when all of the following are met:
1. TFESI is requested for a single level bilaterally or two levels unilaterally;
  2. There is persistent radicular pain caused by disc herniation in a defined nerve root level, or spinal stenosis confirmed by physical exam and imaging;
  3. Pain interferes with ADLs and has lasted for at least 3 months;
  4. The member has failed to respond to conservative therapy including all of the following:
    - a.  $\geq 6$  weeks chiropractic, physical therapy or prescribed home exercise program;
    - b. NSAID  $\geq 3$  weeks or NSAID contraindicated or not tolerated;
    - c.  $\geq 6$  weeks activity modification;
  5. The member is not currently being treated with full anticoagulation therapy. For patients on warfarin, INR should be  $\leq 1.4$  prior to the procedure. Discontinuing 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;
  6. Absence of systemic infection or local infection at the site of a planned injection.
- B. *A second TFESI for chronic pain* in the lumbar region is considered **medically necessary** when meeting all of the following:
1. There was not a positive response to the initial injection;
  2. Request is for a TFESI at a single level bilaterally or two levels unilaterally;
  3. At least two weeks have passed since the initial TFESI.
- C. *Subsequent TFESIs for chronic pain* are considered **medically necessary** if symptoms recur after a favorable response to the diagnostic SNRB(s) or initial TFESI(s) and all of the following:
1. The TFESI is requested at a single level bilaterally or two levels unilaterally;
  2. There was  $\geq 50\%$  relief associated with functional improvement for at least 2 months from the prior injection(s);
  3. TFESIs are given at least 3 months apart;

4. Less than 4 injections have been given at the same site within 12 months;
  5. The member is not currently being treated with full anticoagulation therapy. For patients on warfarin, INR should be  $\leq 1.4$  prior to the procedure. Discontinuing 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;
  6. Absence of systemic infection or local infection at the site of a planned injection.
- D.** *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.
- E.** *One TFESI for acute pain management* is considered **medically necessary** when all of the following are met:
1. Pain has lasted for  $< 3$  months;
  2. There is severe radicular pain in a specific nerve root distribution that interferes substantially with ADLs;
  3. Severe pain persists after treatment with NSAID and/or opiate (both  $\geq 3$  days or contraindicated/not tolerated);
  4. The member cannot tolerate chiropractic or physical therapy and the injection is intended as a bridge to therapy.
- F.** *TFESIs for any other indication or location* are considered **not medically necessary** because effectiveness has not been established.

## 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 3 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 at 3 months. A 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.

Zhai et al conducted a meta-analysis to assess the effects of various surgical and nonsurgical modalities, including epidural injections, used to treat lumbar disc herniation (LDH) or radiculitis.<sup>2</sup> 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.<sup>2</sup>

Results of a 2 year follow-up of 3 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 3 techniques with local anesthetic alone or local anesthetic with steroid.<sup>3</sup> Interlaminar injections with steroids were superior to transforaminal at 12-months.<sup>3</sup>

### **Coding Implications**

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<b>CPT® Codes</b>	<b>Description</b>
64479	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); cervical or thoracic, single level
64480	Injection(s), anesthetic agent 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)
0228T	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, cervical or thoracic; single level
0229T	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, cervical or thoracic; each additional level (List separately in addition to code for primary procedure)
0230T	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, lumbar or sacral; single level
0231T	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with ultrasound guidance, lumbar or sacral; each additional level (List separately in addition to code for primary procedure)

HPCPS Codes	Description
N/A	

### ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
G56.00-G56.93	Mononeuropathies of upper limb
G57.00-G57.93	Mononeuropathies of lower limb
M48.061-M48.062	Spinal stenosis, lumbar region
M50.00-M50.93	Cervical disc disorders
M51.04-M50.06	Thoracic, thoracolumbar, and lumbosacral intervertebral disc disorders with myelopathy
M51.14-M51.27	Thoracic, thoracolumbar and lumbosacral intervertebral disc disorders with radiculopathy
M54.12	Radiculopathy, cervical region
M54.13	Radiculopathy, cervicothoracic region
M54.14	Radiculopathy, thoracic region
M54.15	Radiculopathy, thoracolumbar region
M54.16	Radiculopathy, lumbar region
M54.17	Radiculopathy, lumbosacral region
M54.30-M54.32	Sciatica
M54.40-M54.42	Lumbago with sciatica
M54.5	Low back pain

Reviews, Revisions, and Approvals	Date	Approval Date
New policy developed. Split from retired CP.MP.118 Injections for Pain Management. No criteria change.	09/18	

### References

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## CLINICAL POLICY

### SNRB/TFESI

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