

# Multi-Jurisdictional Contractor Advisory Committee (CAC)/Subject Matter Expert Meeting

## February 11, 2021

### Topic: Epidural intervention for chronic pain management

#### Questions for epidural/selective nerve root blocks

##### Selection of patients for epidural injections

1. Do you agree the clinical literature supports the following definition of radicular back pain?  
Radicular pain = Radicular pain is nerve root pain radiating from the affected spinal segment in a distribution concordant with the known distribution of the nerve root. Yes or No?
2. What is your level of confidence that the evidence supports the benefit of epidural steroid injection outweigh the risk for radicular pain? Score (1-5)?
3. Do you agree the evidence supports that “radicular pain” must be concordant with a radiologist’s interpretation of an advanced diagnostic imaging study (MRI or CT) of the spine demonstrating compression of the involved named spinal nerve root(s)? Score (1-5)?
4. Rate your confidence in the evidence provided to support the use of epidural steroid injections for the following conditions? If you are confident ( $\geq 3.0$ ), Please cite references.

Condition	Score (1-5)
Axial spine pain or discogenic pain	
Lumbar central spinal stenosis	
Foraminal stenosis	
Subarticular stenosis	
Nonspecific low back pain	
Post-Laminectomy pain syndrome	
Non-organic back pain	
Widespread diffuse pain	
Complex regional pain syndrome	
Post herpetic neuralgia	
Acute herpes zoster	

Traumatic neuropathy of the spinal nerve roots	
Intractable and severe pain secondary to neuropathy from other causes (e.g., diabetic or metabolic)	
Severe, intractable pain in patients with advanced stages of cancer with estimated life expectancy of 4 months or less.	
Cervicogenic headaches	
Cervicobrachialgia	
Facet synovial cysts	
Epidural lipomatosis	

5. What level of confidence do you have that the evidence supports a period of conservative management prior to treatment with an epidural injection? Score 1-5
6. What level of confidence do you have that the evidence supports there should be documented pain relief failure of at least two (2) classes of medications<sup>1</sup> prior to patients receiving an epidural procedure? Score 1-5?
7. What level of confidence do you have that the evidence supports the following are considered contraindications to epidural injections? Are there any additional limitations that must be considered for the safety of this procedure? If Yes, please describe?

Condition	Score (1-5)
Medically controlled Coagulopathy	
Concurrent systemic infection	
Infectious spondylitis	
Acute spinal cord compression	

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<sup>1</sup> Medication classes would consist of: NSAIDs, opiates, non-opioid analgesics, anti-epileptic medications used for treatment of chronic pain, antidepressant medications used for treatment of chronic pain, ASA or ASA derivatives, muscle relaxants, steroids, or documented contraindication to each of these drug classes

Acute myelopathy or cauda equina syndrome	
Inability to obtain informed consent from patient, healthcare surrogate or legal guardian	
Infection at the skin puncture site	
Major risk factor for cancer or strong clinical suspicion for cancer with no established etiology	
Potential presence of a CNS process resulting in the presenting symptoms, e.g., transverse myelitis, central demyelination/rapidly progressing neurological deficits	

8. What is your level of confidence that the evidence supports the benefit of epidural steroid injection outweigh risk for cervical radicular pain? Score 1-5?
9. What is your level of confidence that the evidence supports the benefit of epidural steroid injection outweigh risk for thoracic radicular pain? Score 1-5?

### **Performance of epidural injections and procedures**

10. What level of confidence do you have that the evidence supports epidural injections should only be performed with an anesthetic, corticosteroid, and/or a contrast agent (i.e., do you agree other substances are experimental)?
11. What level of confidence do you have that the evidence supports the following routes of administration? Score each 1-5.
  - a. transforaminal (TFESI)
  - b. interlaminar (IESI)
  - c. caudal (CESI)
12. What is your confidence that the clinical literature supports the epidural steroid injection provide at least 50% pain relief? What scales do you recommend for measuring pain relief? Score 1-5?

13. What is your confidence level that there is evidence to support improvement in function as a measurement of epidural steroid injection success? Score 1-5.
14. What is your level of confidence that the evidence demonstrates epidural steroid injection provided relief for a minimum of 6 weeks after the injection? Score 1-5?
15. Is there evidence supporting repeat epidural treatments if the initial epidural treatment did not result in substantial pain relief? Score 1-5?
16. Is there evidence to support treatment at a different nerve level even in the same spinal region may be effective? Score 1-5?
17. Is there literature to support an optimal interval between repeat epidural steroid injections, provided that previous injections resulted in at least 50% relief or functional improvement for at least six weeks? Yes or No, please provide references. If no literature, is there societal guidelines?
18. Does the literature provide input on a safe or harmful number of epidurals injections per year? Yes or no, please provide references. If there is no evidence, is there societal input and what do you consider a safe number in 12 months and why? Please include input on the potential effects of the repeat steroid administration.
19. Does the literature provide input on the safety of multiple levels of epidural steroid injections in the same session? Yes or no, please provide references. If there is no evidence, what do you consider a safe number per session, and why?
20. Does the literature provide input on safe duration of time between the administrations of separate epidurals in the same spinal region?
21. Does the clinical literature provide evidence that epidural steroid injections can be administered safely at the same time as other interventional procedures (such as facet, nerve blocks)? Yes or No? If Yes, please provide references.
22. What is your level of confidence in the evidence to support repeat epidural injections for long-term (> 6 months) management of chronic back pain? Score 1-5. If you are confident (score  $\geq 3$ ), there is support, for what patients are considered good candidates for long-term treatments, and based on what literature? Please provide references.
23. What is your level of confidence epidural injections should not be performed with moderate sedation or general anesthesia? Score 1-5?
24. What is your level of confidence that the evidence supports a maximal steroid dose for corticosteroid limits for the injectants and what limits are supported? Score 1-5.
25. What is your level of confidence that the evidence supports the continuation of anticoagulation for epidural injections? Score 1-5.

26. What is your level of confidence that the evidence supports that epidural adhesiolysis is effective and safe? Score 1-5.

27. Is there evidence to support epidural steroid injection reduce the need for surgical intervention? Score 1-5. Please cite references.

28. Is there evidence to support epidural steroid injections reduce the need for opioids? Score 1-5. Please cite references.

**Terms:**

**Therapeutic Phase:** When the epidural injections are provided initially, this will be termed the “first year of treatment” or the “therapeutic phase” of treatment.

**Acute Low Back Pain:** Low back pain which is present for up to six weeks.

The early acute phase is defined as less than two weeks.

The late acute phase is defined as two to six weeks, secondary to the potential for delayed-recovery or risk phases for the development of chronic low back pain. Low back pain can occur on a recurring basis. If there has been complete recovery between episodes, it is considered acute recurrent. (Goertz et al. 2012)

**Conservative Therapy:** Consists of an appropriate combination of medication (for example, NSAIDs, analgesics, etc.) in addition to physical therapy, spinal manipulation therapy, cognitive behavioral therapy (CBT) or other interventions based on the individual’s specific presentation, physical findings and imaging results. (AHRQ 2013; Qassem 2017; Summers 2013)

**Epidural Steroid Injections (ESI):** Is a nonsurgical treatment for managing radiculopathy caused by disc herniation or degenerative changes in the vertebrae such as spondylosis. Medication is injected directly into the epidural space. The injection may also include a local anesthetic. The goal of ESI is to reduce inflammation, relieve pain, improve function, and reduce the need for surgical intervention. (Hayes, 2018)

**Non-Radicular Back Pain:** Pain which does not radiate along a dermatome (sensory distribution of a single root). Appropriate imaging does not reveal signs of spinal nerve root compression and there is no evidence of spinal nerve root compression seen on clinical exam. (Lenahan, 2018)

**Radicular Pain:** Radicular pain is nerve root pain radiating from the affected spinal segment in a distribution concordant with the known distribution of the nerve root.

**Radiculopathy:** Radiculopathy is characterized by pain which radiates from the spine to extend outward to cause symptoms away from the source of the spinal nerve root irritation. May be accompanied by loss of sensation, strength loss, or reflex changes (difference between radicular pain and radiculopathy) (Lenahan, 2018)

**Sub-Acute Low Back Pain:** Low back pain with duration of greater than six weeks after injury but no longer than 12 weeks after onset of symptoms. (Goertz et al., 2012)

**Transforaminal epidural steroid injection (TFESI)** is a therapeutic injection of contrast (absent allergy to contrast) performed at a single or multiple spinal levels followed by the introduction of a corticosteroid and possibly a local anesthetic by inserting a needle into the neuroforamen under fluoroscopic or computed tomography (CT) guidance.

**Selective Nerve Root Block (SNRB)** is a diagnostic injection of contrast (absent allergy to contrast) of a single nerve root to assist with surgical planning followed by the introduction of a local anesthetic by inserting a needle into the neuroforamen under fluoroscopic or computed tomography (CT) guidance.

SNRB's are erroneously referred to as a Transforaminal Epidural Steroid Injection (TFESI), although technically SNRB's involve the introduction of anesthetic only and are used for diagnostic purposes.

Interlaminar epidural steroid injection (ESI) is an injection of contrast (absent allergy to contrast), followed by the introduction of a corticosteroid and possibly a local anesthetic into the epidural space of the spine either through a paramedian or midline interlaminar approach under fluoroscopic guidance.

Caudal epidural steroid injection (ESI) is an the injection of contrast (absent allergy to contrast), followed by the introduction of corticosteroids and possibly a local anesthetic into the epidural space of the spine by inserting a needle through the sacral hiatus under fluoroscopic guidance into the epidural space at the sacral canal.

Radiculopathy is defined as the presence of pain, dysesthesia(s), or paresthesia(s) reported by the individual in a specified dermatomal distribution of an involved named spinal root(s), causing significant functional limitations resulting in diminished quality of life and impaired, age appropriate activities of daily living, and EITHER of the following:

Spinal stenosis refers to the narrowing of the spinal canal usually due to spinal degeneration that occurs with aging. It may also be the result of spinal disc herniation, osteoarthritis or a tumor. Lumbar spinal stenosis results in low back pain as well as pain or abnormal sensations in the legs, thighs, feet or buttocks, or loss of bladder and bowel control.