Epidural Steroid Injections for Back Pain

Description of Procedure or Service

Back pain is an extremely common condition. Most episodes are self-limited and will resolve within 1 month, but a small percentage will persist and become chronic. Patients with chronic back pain may suffer from serious disability and may use a high volume of medical services. Despite high utilization, many patients with chronic back pain do not improve with available treatments, including surgical interventions. Therefore, there is a high unmet need to determine the efficacy of different treatments for chronic back pain and to determine which patient populations may benefit from specific interventions. In addition, in recent years there has been a proliferation of new technologies, combined with large increases in the number of patients treated and in the intensity of treatment. Therefore, there is a concern for overtreatment of patients who may not benefit from interventions for back pain.

Back pain can result from a variety of underlying causes. Sciatica is a subset of low back pain that is associated with irritation of one or more lumbar spinal nerve roots, which results in symptoms of radiculopathy. Symptoms of radiculopathy include pain that radiates down the leg to below the knee, numbness, muscle weakness, and lack of reflexes in a dermatomal distribution. Most patients with sciatica respond to conservative care with resolution of their symptoms within several weeks to several months following onset. In a subset of patients, symptoms and signs of progressive muscle weakness prompt a more aggressive intervention to prevent permanent dysfunction. In other patients, symptoms persist despite conservative management, without progression of neurologic signs, and further treatment options are sought for pain relief.

Spinal stenosis is another common source of back pain. Spinal stenosis is caused by narrowing of the spinal canal due to degenerative changes, leading to impingement of the spinal cord and the spinal nerve roots. Symptoms of spinal stenosis can include back pain, leg pain with exertion (neurogenic claudication), muscle weakness, and sensory deficits. Definitive treatment for spinal stenosis is surgery, which includes decompression of the spinal canal with or without spinal fusion. Epidural steroids may reduce inflammation from pressure on the spinal cord, and thus reduce symptoms of compression.

Nonspecific low back pain, sometimes called mechanical low back pain, is diagnosed when no specific etiology of pain can be identified. Although the etiology of nonspecific low back pain is uncertain, many experts feel that the pain is of discogenic origin or due to painful movement of the vertebrae. In these instances, epidural steroid injections may reduce swelling of the vertebral disc and/or surrounding structures, leading to pain relief.

Regardless of specific etiology, conservative management is the first-line treatment for most patients with back pain. Nonsteroidal anti-inflammatory drugs or other analgesics are used for symptom relief. These agents should be used for at least several weeks at a dose sufficient to
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induce a therapeutic response. Additionally, modification of activity in conjunction with some form of exercise therapy is frequently prescribed early in the course of symptoms and typically involves a physical therapist. For patients with persistent nonradicular back pain, current guidelines recommend interdisciplinary rehabilitation, which is defined as an integrated approach using physical rehabilitation in conjunction with a psychological or psychosocial intervention.

For patients who fail conservative therapy, there are a number of interventional therapies available, which range from minimally invasive procedures, such as injections, to major surgeries, such as spinal decompression with fusion. Injections can be given in different locations (e.g., soft tissues, intraspinal, sacroiliac joints) and can use different therapeutic agents (e.g., botulinum toxin, steroids, proteolytic enzymes). Other interventional techniques include radiofrequency ablation, prolotherapy, and chemonucleolysis. Most of these nonsurgical interventions do not have high-quality evidence demonstrating their efficacy. A number of surgical interventions are available, such as discectomy and spinal fusion, each of which can be performed by a variety of different techniques. The decision to undertake surgery is best made in the setting of shared decision-making between the patient and surgeon, with thorough consideration given to the risks and benefits of surgery.

**Epidural Steroid Injections**

Epidural injection therapy is one of several second-line therapies available for patients who fail conservative treatment and is one of the most common modalities used in this group of patients. Epidural steroid injections (ESIs) are performed by inserting a needle into the space between the dura and ligamentum flavum and injecting a steroid preparation. There is considerable variability in the technical aspects of epidural injections. Several different approaches may be used for entering the epidural space (translaminar, transforaminal, caudal). In addition, ESIs may be administered with or without fluoroscopic guidance. For example, a national survey published in 2002 reported that 30% of academic institutions and 77% of private practices use fluoroscopy. Some authors have estimated that lack of correct needle position in the epidural space may occur in 25% or more of injections administered. Therefore, live fluoroscopic guidance is shown to be much more effective than still image fluorography in the epidural space. Variability of technique may also involve factors such as the depth of injection into the epidural space, volume of injectate, and the filling patterns of the injectate.

Treatment is generally given as 1 to 3 injections, each performed at least 1 month apart. Some experts recommend no more than 3 injections in a 12-month period, owing to concerns about the adverse events of chronic steroid administration, both locally and systemically. However, other experts believe that up to 6 injections per year is safe.

**Regulatory Status**

Steroids are not approved by the U.S. Food and Drug Administration (FDA) for use as epidural injections; such use represents off-label use of an FDA-approved medication. The specific preparations used for epidural injections are steroids added to a sterile saline solution, which are prepared by a compounding pharmacy.

**Related Policies**

- Artificial Intervertebral Disc
- Image-Guided Minimally Invasive Decompression (IG-MLD) for Spinal Stenosis
- Interspinous Fixation (Fusion) Devices
- Interspinous and Interlaminar Stabilization/Distraction Devices (Spacers)
- Lumbar Spine Fusion Surgery

***Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***
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Policy

BCBSNC will provide coverage for epidural steroid injections for back pain when it is determined to be medically necessary because the medical criteria and guidelines noted below are met.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When epidural steroid injections are covered

Epidural steroid injections performed with live fluoroscopic guidance (video type x-ray pictures of the epidural space) may be considered medically necessary for the treatment of back pain when the following criteria are met:

- Lumbar or cervical radiculopathy (sciatica) that is not responsive to at least 4 weeks of conservative management (see Policy Guidelines section); AND
- Persistent pain is present of at least moderate-severe intensity (i.e. documented limits in day to day activities and/or walking); AND
- Short-term relief of pain is the anticipated outcome.

Repeat treatment of persistent pain due to radiculopathy/sciatica may be considered medically necessary under the following conditions:

- Previous epidural steroid injections were successful at relieving pain; AND
- At least 30 days have elapsed since the prior injection (see Policy Guidelines section for maximum number of injections); AND
- No more than 6 injections given over a 12-month period regardless of spine level treated or procedural approach.

Simultaneous treatment of 2 vertebral levels may be considered medically necessary if criteria are met at each level not to exceed a total of 6 injections over a 12-month period regardless of procedural approach.

When epidural steroid injections are not covered

Repeat treatment is considered not medically necessary if the initial treatment did not result in substantial pain relief (i.e. at least 50% reduction of pain with overall improvement of activities of daily living and/or walking).

Simultaneous treatment of more than 2 vertebral levels is considered not medically necessary.

Epidural steroid injections are considered investigational in all other situations, including but not limited to treatment of spinal stenosis and nonspecific low back pain.

The use of still image fluorography (snapshot x-ray pictures of the epidural space) as a component of epidural steroid injections is considered investigational.

Policy Guidelines

The diagnosis of lumbar radiculopathy is typically made by a combination of suggestive signs and symptoms in conjunction with imaging that demonstrates compression of a spinal nerve root. Symptoms are due to irritation of the spinal nerve root at L4, L5, or S1, and may include
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posterior leg pain that extends past the knee, a loss of sensation in a dermatomal pattern, and/or loss of deep tendon reflexes. However, all of these symptoms may not be present. On exam, provocative tests such as the straight leg maneuver are positive. Magnetic resonance imaging is the most useful imaging modality and can confirm or exclude the presence of nerve root compression, most commonly due to herniated disc.

Conservative nonsurgical therapy for at least 4 weeks should include the following:

- Use of prescription-strength analgesics for several weeks at a dose sufficient to induce a therapeutic response
  - Analgesics should include anti-inflammatory medications with or without adjunctive medications such as nerve membrane stabilizers or muscle relaxants AND
- Participation in at least 4 weeks of physical therapy (including active exercise) or documentation of why the patient could not tolerate physical therapy, AND
- Evaluation and appropriate management of associated cognitive and behavioral issues

The evidence for ESIs in patients who have lumbar or cervical radiculopathy includes many small randomized controlled trials (RCTs) and a number of systematic reviews of these RCTs. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, medication use, and treatment-related morbidity. The evidence base lacks large-scale, high-quality trials and has a high degree of variability among the available trials in terms of patient populations, techniques of epidural injections, and comparison treatments. The results of individual trials are mixed, with some reporting significant benefits for the ESI group and others reporting no benefit. Most systematic reviews do not perform pooled analyses due to heterogeneity of trials. In the 2 reviews that reported quantitative results, short-term pain relief at up to 6 months follow-up was superior in patients treated with epidural steroids. None of the analyses reported long-term benefits for treatment with ESIs. Adverse events are generally mild, but were not well reported in these trials. Serious adverse events (SAEs) can occur, but the rate of SAEs is unknown. The evidence is sufficient to determine qualitatively that the technology results in a meaningful improvement in the net health outcome.

The evidence for ESIs in patients who have spinal stenosis includes 1 moderately large RCT, a few small RCTs, and systematic reviews of these RCTs. Relevant outcomes include symptoms, functional outcomes, health status measures, quality of life, medication use, and treatment-related morbidity. The largest RCT and the majority of smaller trials do not report a benefit for ESIs. The evidence is insufficient to determine the effects of technology on health outcomes.

The evidence for ESIs in patients who have nonspecific low back pain includes a number of small RCTs and systematic reviews of these RCTs. Relevant outcomes include symptoms, functional outcomes, health status measures, quality of life, medication use, and treatment-related morbidity. The majority of trials are of low quality and do not report a benefit for ESIs. The evidence is insufficient to determine the effects of the technology on health outcomes.


The following recommendations were made on ESIs of the lumbar spine:

- “The evidence is good in managing disc herniation or radiculitis for caudal, interlaminar, and transforaminal epidural injections;
- [the evidence] is fair for axial or discogenic pain without disc herniation, radiculitis or facet joint pain with caudal, and interlaminar epidural injections, and limited for transforaminal epidural injections;
- [the evidence] is fair for spinal stenosis with caudal, interlaminar, and transforaminal epidural injections; and
- [the evidence] is fair for postsurgery syndrome with caudal epidural injections and limited with transforaminal epidural injections.”
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The following recommendations were made regarding ESIs of the cervical spine:

- “The evidence is good for cervical interlaminar epidural injections for cervical disc herniation or radiculitis”; and
- “[the evidence] is fair for axial or discogenic pain, spinal stenosis, and post cervical surgery syndrome.”

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: 62320, 62322, 64479, 64480, 64483, 64484

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources


Specialty Matched Consultant Advisory Panel 04/2020


Policy Implementation/Update Information

2/29/16 New policy created. Epidural steroid injections are medically necessary for treatment of lumbar sciatica/radiculopathy when criteria are met, not medically necessary if previous epidural injections were not successful, and investigational for all other situations. Notification given 2/29/2016 for policy effective date 5/31/2016. (sk)

11/22/16 Specialty Matched Consultant Advisory Panel review 10/26/2016. (sk)

12/30/16 Codes 62310 and 62311 deleted from Billing/Coding section. Codes 62320 and 62322 added to Billing/Coding section. (sk)

6/30/17 Specialty Matched Consultant Advisory Panel review 4/26/2017. No change to policy statement. (an)
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4/30/19 Reference added. Specialty Matched Consultant Advisory Panel review 4/17/2019. No change to policy statement. (an)

4/28/20 References added. Societal guidelines added to Policy guidelines section. Clarification of fluoroscopic guidance as “live” and “(video type x-ray pictures of the epidural space)” added to When covered section. Clarification of fluorography as “still image” and “(snapshot x-ray pictures of the epidural space)” added to When not covered section. Added clarification for substantial relief to When not covered section “(i.e. at least 50% reduction of pain with overall improvement of activities of daily living and/or walking).” Clarification added to When covered section injection limits “regardless of spine level treated or procedural approach.” When covered statement for persistent pain clarified with “(i.e. documented limits in day to day activities and/or walking).” Specialty Matched Consultant Advisory Panel review 4/15/2020. No change to policy statement. (eel)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.