Retired Effective April 12, 2017

For Dates of Service after April 12, 2017 refer to Blue Advantage policy #141 "Treatment Modalities for Facetogenic Pain"

BlueCross BlueShield of Alabama

For Trigger Point Injections see LCD L30066
For Lumbar Facet Blockade see LCD 34293
For injections of the Spinal Canal see LCD 34291
Diagnosis and Treatment of Sacroiliac Joint Pain see Medical Policy 558

Name of Blue Advantage Policy:

Cervical or Thoracic Facet Joint Injections

Policy #: 303
Category: Surgical

Latest Review Date: March 2016
Policy Grade: B

Background:

Blue Advantage *medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:*

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*

    - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
    - *Furnished in a setting appropriate to the patient's medical needs and condition;*
    - *Ordered and furnished by qualified personnel;*
    - *One that meets, but does not exceed, the patient's medical need; and*
    - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill* ***Original Medicare* *for covered services that are related to* ***clinical trials*** *that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

Description of Procedure or Service:

Facet joints, located on either side of the vertebrae, give the spine its flexibility. They are paired (right and left) and are surrounded by a joint capsule. Like other joints, the facet joints can be a source of pain when they become irritated or inflamed. Facet joints may also be referred to as zygapophysial joints.

Facet injections, in the cervical, thoracic and lumbar regions of the spine, are divided into two phases: the diagnostic phase and the therapeutic phase. In the diagnostic phase, an injection is given and if there is pain relief (positive block), additional injections are given as part of the therapeutic phase. If there is no pain relief after the diagnostic injection (negative block), the therapy is not continued. There are no historical, physical or imaging studies that are diagnostic of facet joint pain. The diagnosis is one of exclusion that is facilitated by performing a diagnostic block of the facet joint or nerves (medial branch of the posterior primary ramus) innervating the joints.

A facet joint injection serves as both a diagnostic tool and a type of treatment. A set of facet joint injections means injections in up to four levels performed in one sitting. Up to four sets of facet injections may be performed to diagnose the origin of a patient's pain and achieve a therapeutic effect.

Either intraarticular or medial branch blocks can be used for diagnostic and/or therapeutic purposes. With intraarticular facet joint injections, the physician will place a needle into the joint capsule. Needle placement is guided by placement of a needle into the “ear of the Scottie dog” (i.e., superior articulating process of the vertebrae) on oblique fluoroscopic imaging in the lumbar and thoracic spine. Then, a local anesthetic agent with or without corticosteroids is injected through the needle.

If the patient feels pain relief immediately after intraarticular or medial branch blocks, this confirms that the facet joint was the source of pain. Pain may return after local anesthetic effect ends. Usually it takes about a week to reduce inflammation and pain. Pain relief can last up to several months.

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 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.

Policy:

Effective for dates of service on or after April 12, 2017 refer to Blue Advantage policy #141 Treatment Modalities for Cervical or Thoracic Facetogenic Pain

Effective for dates of service on or after May 16, 2016 and prior to April 12, 2017:
Cervical or Thoracic Facet/Zygapophysial Joint Injections
Blue Advantage will treat **cervical or thoracic facet joint injections** as a **covered benefit** when:

- Performed under radiographic guidance (i.e., fluoroscopy or CT); **and**
- Patient has a history of back pain which has not responded to conservative therapy*; **and**
- Used as a diagnostic trial to help determine the origin of the patient's pain, establish effectiveness of facet injections in relieving pain, and to achieve a therapeutic effect.
- A diagnostic block provided pain relief (at least 50% pain relief with the ability to perform previous painful maneuvers)

Blue Advantage will treat **subsequent cervical or thoracic facet injections** as a **non-covered benefit** when the patient does not experience any symptom relief or functional improvement.

Blue Advantage will treat up to **4 facet joint injections per affected region (i.e., cervical or thoracic)** within a **12 month** period as a **covered benefit once a diagnosis is established and the patient experiences symptom relief or functional improvement**.

Blue Advantage will treat **additional cervical or thoracic facet joint injections** as a **covered benefit** on an **individual case basis** if the patient sustains an **additional acute injury**. Medical records must clearly document date, type, and location of injury.

Blue Advantage will treat **cervical or thoracic facet joint injections** using ultrasound guidance as a **non-covered benefit**.

Blue Advantage will treat **intradiscal injections of steroids or other substances** as a **non-covered benefit** and **investigational**.

*Conservative therapy is the use of structured physician-directed modalities which may include: prescription strength analgesics/anti-inflammatory medications if not contraindicated; participation in physical therapy when rendered by an eligible provider (including active exercise).

Effective for dates of service on or after October 22, 2014 and prior to May 16, 2016:
Cervical or Thoracic Facet/Zygapophysial Joint Injections
Blue Advantage will treat **cervical or thoracic facet joint injections** as a **covered benefit** when:

- Performed under radiographic guidance (i.e., fluoroscopy or CT); **and**
- Patient has a history of back pain which has not responded to conservative therapy*; **and**
- Used as a diagnostic trial to help determine the origin of the patient's pain, establish effectiveness of facet injections in relieving pain, and to achieve a therapeutic effect.

Blue Advantage will treat **subsequent cervical or thoracic facet injections** as a **non-covered benefit** when the patient does not experience any symptom relief or functional improvement.

Blue Advantage will treat up to **4 cervical or thoracic facet joint injections per affected level** within a **12 month** period as a **covered benefit once a diagnosis is established and the patient experiences symptom relief or functional improvement**.

Blue Advantage will treat **additional cervical or thoracic facet joint injections** as a **covered benefit** on an **individual case basis** if the patient sustains an **additional acute injury**. Medical records must clearly document date, type, and location of injury.

Blue Advantage will treat **cervical or thoracic facet joint injections** using ultrasound guidance as a **non-covered benefit**.

Blue Advantage will treat **intradiscal injections of steroids or other substances** as a **non-covered benefit** and **investigational**.

*Conservative therapy is the use of structured physician-directed modalities which may include: prescription strength analgesics/anti-inflammatory medications if not contraindicated; participation in physical therapy when rendered by an eligible provider (including active exercise).

Effective for dates of service on or after January 1, 2012 and prior to October 22, 2014:
Cervical or Thoracic Facet/Zygapophysial Joint Injections
Blue Advantage will treat **cervical or thoracic facet joint injections** as a **covered benefit** when:

- Performed under radiographic guidance (i.e., fluoroscopy or CT); **and**
- Patient has a history of back pain which has not responded to conservative therapy*; **and**
- Used as a diagnostic trial to help determine the origin of the patient's pain, establish effectiveness of facet injections in relieving pain, and to achieve a therapeutic effect.

Blue Advantage will treat **subsequent cervical or thoracic facet injections** as a **non-covered benefit** when the patient does not experience any symptom relief or functional improvement.

Blue Advantage will treat up to **4 cervical or thoracic facet joint injections per affected level** within a **12 month** period as a **covered benefit once a diagnosis is established and the patient experiences symptom relief or functional improvement**.

Blue Advantage will treat **additional injections** as a **covered benefit** on an **individual case basis** if the patient sustains an **additional acute injury**. Medical records must clearly document date, type, and location of injury.

Blue Advantage will treat **cervical or thoracic facet joint injections** using ultrasound guidance as a **non-covered benefit**.

Sacroiliac (SI) Joint Injections

Blue Advantage will treat **injection into the sacroiliac joint for diagnostic or therapeutic purposes** as a **covered benefit** when **all** the following criteria are met:

- Performed under imaging guidance; **and**
- Somatic or nonradicular low back and lower extremity pain below the level of L5 vertebra; **and**
- Duration of pain of at least 3 months; **and**
- Average pain levels of >6 on a scale of 0 to 10; **and**
- Intermittent or continuous pain causing functional disability; **and**
- Failure to respond to more conservative management, including physical therapy modalities with exercises, chiropractic management, and non-steroidal anti-inflammatory agents; **and**
- Lack of obvious evidence for disc-related or facet joint pain; **and**
- No contraindications with understanding of consent, nature of the procedure, needle placement, or sedation; **and**
- No history of allergy to contrast administration, local anesthetics, steroids, or other drugs potentially utilized; **and**
- Contraindications or inability to undergo physical therapy, chiropractic management, or inability to tolerate non-steroidal anti-inflammatory drugs; **and**
- For therapeutic sacroiliac joint interventions with intra-articular injections or radiofrequency neurotomy, the joint should have been positive utilizing controlled diagnostic blocks.

Blue Advantage will treat **arthrography of the sacroiliac joint** as a **non-covered benefit** and as **investigational.**

Blue Advantage will treat **intradiscal injections of steroids or other substances** as a **non-covered benefit** and **investigational**.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

Key Points:

Facet Joint Injections

Although the history and physical examination may suggest that the facet joint is the cause of spine pain, no noninvasive pathognomonic findings distinguish facet joint-mediated pain from other sources of spine pain. Fluoroscopically guided facet joint injections are commonly considered the gold standard for isolating or excluding the facet joint as a source of spine or extremity pain. Intra-articular, fluoroscopic-guided, contrast-enhanced facet injections are considered critical for proper diagnosis and can be instrumental in the treatment of facet joint

arthropathies. A patient can be examined both preinjection and postinjection to determine what portion of his or her pain can be attributed to the joints injected.

Typically, small amounts of anesthetic and or corticosteroid are injected directly into the joint. The rationale is that the anesthetic will supply short-acting pain relief, and the steroid will decrease local inflammation and result in sustained pain relief. Fluoroscopic guidance with confirmation of needle placement via injection of radiopaque contrast is mandatory as a significantly improved outcome results in intraarticular placement of corticosteroid as opposed to local extraarticular injection. Efficacy of injections has been shown in uncontrolled trials to range from 18 to 63%. In addition, there have been reports of sustained relief after injection of anesthetic and saline alone. Nevertheless, because of the suspicion of local inflammation and the low side-effects profile, the practice of instilling corticosteroid is widely practiced. In the only randomized placebo-controlled trial that utilized diagnostic injection as inclusion criteria, results showed a trend to improvement at one month with corticosteroid compared to placebo. However, this difference was not statistically significant.

Because most acute low back pain improves in several weeks, injection should be reserved for patients who have had persistent symptoms despite conservative therapy for four to six weeks. Injections should not be used in patients with neurologic impairment as this suggests additional pathology. Other contraindications include bleeding diathesis, local infection, spinal malignancy, pregnancy (because of the teratogenic effects of radiation), or severe allergy to any of the medications. Potential complications include bleeding, infection, thecal sac puncture with headache, postprocedure radicular or back pain, and allergic and vasovagal reactions. Injections should be used in conjunction with a physical therapy program as the main goal of the injection is to afford the patient enough pain relief to allow participation in a strengthening program. Repeat injections should be reserved for patients who had significant symptom improvement.

Intradiscal Injections

There is no convincing evidence that intradiscal glucocorticoids are effective for low back pain. In patients with MRI evidence of degenerative disc disease and a positive response to discography, two trials found no difference between intradiscal steroid and control injection (saline or local anesthetic). A third trial found that in patients with degenerative disc disease who failed an epidural steroid injection, intradiscal steroid injection was superior to discography alone only in the subgroup of patients with inflammatory endplate changes on MRI. However, outcomes were not well defined in this trial and levels of statistical significance were poorly reported. Based on these trials, the American Pain Society guideline recommends against intradiscal glucocorticoid injection for chronic low back pain.

Tumor necrosis factor (TNF)-alpha has been implicated in the pathogenesis of radiculopathy and discogenic back pain. A small pilot study showed that intradiscal injections of etanercept (interferes with TNF-alpha) did not improve pain or disability scores for patients with lumbosacral radiculopathy or chronic discogenic low back pain.

Methylene blue is a compound used as a dye or stain which has been studied for various therapeutic purposes. A randomized trial (n = 72) found intradiscal injection of methylene blue for patients with discography-positive, presumed discogenic back pain associated with large improvements in pain (about 40 points on a 100-point pain scale) and function (about 35 points

on the 0 to 100 Oswestry Disability Index) compared with a placebo intradiscal injection, with no adverse events such as increased pain, radiculopathy, or infection. However, a smaller (n = 24) randomized trial found no difference between intradiscal methylene blue versus a placebo intradiscal injection in pain or function after one month, and over half of the patients treated with methylene blue reported severe pain immediately after the injection. Longer-term results are not yet available, although the trial is designed to follow patients for one year.

Kallewaard and colleagues stated that an estimated 40 % of chronic lumbosacral spinal pain is attributed to the discus intervertebralis. Degenerative changes following loss of hydration of the nucleus pulposus lead to circumferential or radial tears within the annulus fibrosus. Annular tears within the outer annulus stimulate the ingrowth of blood vessels and accompanying nociceptors into the outer and occasionally inner annulus. Sensitization of these nociceptors by various inflammatory repair mechanisms may lead to chronic discogenic pain. The current criterion standard for diagnosing discogenic pain is pressure-controlled provocative discography using strict criteria and at least one negative control level. The strictness of criteria and the adherence to technical detail will allow an acceptable low false-positive response rate. The most important determinants are the standardization of pressure stimulus by using a validated pressure monitoring device and avoiding overly high dynamic pressures by the slow injection rate of 0.05 mL/s. A positive discogram requires the reproduction of the patient's typical pain at an intensity of greater than 6/10 at a pressure of less than 15 psi above opening pressure and at a volume less than 3.0 ml. Perhaps the most important and defendable response is the failure to confirm the discus is symptomatic by not meeting this strict criteria. Various interventional treatment strategies for chronic discogenic LBP unresponsive to conservative care include reduction of inflammation, ablation of intradiscal nociceptors, lowering intra-nuclear pressure, removal of herniated nucleus, and radiofrequency ablation of the nociceptors. Unfortunately, most of these strategies do not meet the minimal criteria for a positive treatment advice. In particular, single-needle radiofrequency thermo-coagulation of the discus is not recommended for patients with discogenic pain (2 B-). Interestingly, a little used procedure, radiofrequency ablation of the ramus communicans meets the (2 B+) level for endorsement. The authors concluded that there is currently insufficient proof to recommend intradiscal electrothermal therapy (2 B±) and intradiscal biacuplasty. It is advised that ozone discolysis, nucleoplasty, and targeted disc decompression should only be performed as part of a study protocol; future studies should include more strict inclusion criteria.

In a systematic review and meta-analysis of RCTs, Magalhaes et al evaluated the therapeutic results of percutaneous injection of ozone for LBP secondary to disc herniation. A comprehensive literature search was conducted using all electronic databases from 1966 through September 2011. The quality of individual articles was assessed based on the modified Cochrane review criteria for randomized trials and criteria from the Agency for Healthcare Research and Quality. The outcome measure was short-term pain relief of at least six months or long-term pain relief of more than six months. A total of eight observational studies were included in the systematic review and four randomized trials in the meta-analysis. The indicated level of evidence for long-term pain relief was II-3 for ozone therapy applied intradiscally and II-1 for ozone therapy applied paravertebrally. The grading of recommendation was 1C for intradiscal ozone therapy and 1B for paravertebral ozone therapy. The authors concluded that ozone therapy appears to yield positive results and low morbidity rates when applied percutaneously for the treatment of chronic LBP. The main drawbacks of this review were the lack of precise diagnosis

and the frequent use of mixed therapeutic agents. The meta-analysis included mainly active-control trials. No placebo-controlled trial was found.

Practice Guidelines and Position Statements
The Agency for Healthcare Research and Quality issued an evidence-based practice center systematic review protocol in 2014. Pain Management Injection Therapies for Low-Back Pain states that between 1994 and 2001, the "use of epidural injections increased by 271 percent and face joint injections increased by 231 percent among Medicare beneficiaries. Despite these dramatic increases, use of injection therapies for low back pain remains controversial. Systematic reviews of injection therapies have come to conflicting conclusions regarding the benefits of injection therapies, and clinical practice guidelines provide discordant recommendations regarding their use. Important challenges in conducting a review of this topic include sparse data from randomized trials for most injection therapies (with the exception of epidural steroids), inconsistency of results across trials, as well as variability across studies in the methods used to select patients for inclusion, the specific techniques used, the comparisons evaluated, and the outcomes assessed."

The 2012 North American Spine Society (NASS) clinical guidelines for multidisciplinary spine care diagnosis and treatment of lumbar disc herniation with radiculopathy stated there were no studies available which directly addressed the role of ESIs or selective nerve root blocks in the diagnosis of patient selection for subsequent surgical treatment of a lumbar disc herniation with radiculopathy.

In 2011, NASS revised its clinical guidelines for multidisciplinary spine care diagnosis and treatment of degenerative lumbar spinal stenosis. They made the following recommendation: a multiple injection regimen of radiographically-guided transforaminal ESI or caudal injections is suggested to produce medium-term (3 to 36 months) relief of pain in patients with radiculopathy or neurogenic intermittent claudication from lumbar spinal stenosis (grade C recommendation).

NASS issued 2010 clinical guidelines for multidisciplinary spine care diagnosis and treatment of cervical radiculopathy from degenerative disorders. They made the following recommendation: Transforaminal ESIs using fluoroscopic or CT guidance may be considered when developing a medical/interventional treatment plan for patients with cervical radiculopathy from degenerative disorders. Due consideration should be given to the potential complications (grade C recommendation).

U.S Preventive Services Task Force Recommendations
Not applicable.

Key Words:
Facet joint injections, zygapophysial joint injection, intradiscal injections

Approved by Governing Bodies:

Steroids are not FDA approved 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.

Benefit Application:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

Current Coding:

CPT Codes:

20999 Unlisted procedure, musculoskeletal system, general

64490 Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; single level

64491 Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) withy image guidance (fluoroscopy or CT), cervical or thoracic; second level (List separately in addition to code for primary procedure)

64492 Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)

77003 Fluoroscopic guidance and localization of needle or catheter tip for spine or paraspinous diagnostic or therapeutic injection procedures (epidural or subarachnoid)

0213T Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; single level

0214T Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; second level (List separately in addition to code for primary procedure)

0215T Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)

Previous Coding:

64470 Injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; cervical or thoracic, single level **(Deleted effective January 1, 2010)**

64472	; cervical or thoracic, each additional level (List separately in addition to code for primary procedure) **(Deleted effective January 1, 2010)**
64475	; lumbar or sacral, single level **(Deleted effective January 1, 2010)**
64476	; lumbar or sacral, each additional level (List separately in addition to code for primary procedure) **(Deleted effective January 1, 2010)**

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