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MEDICAL POLICY – 7.01.555

Facet Joint Denervation

BCBSA Ref. Policy: 7.01.116

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Replaces:	7.01.116

RELATED MEDICAL POLICIES:

6.01.527	Diagnosis and Treatment of Sacroiliac Joint Pain
7.01.107	Interspinous and Interlaminar Stabilization/Distraction Devices (Spacers)
7.01.120	Facet Arthroplasty
7.01.125	Occipital Nerve Stimulation

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RELATED INFORMATION | EVIDENCE REVIEW | REFERENCES | HISTORY

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Introduction

Back pain is a common symptom and disability in some people. Despite extensive knowledge of the bones, nerves, muscles, tendons, and structures of the spine, it is still very difficult to identify a specific source of back pain for many people. A part of the spine felt to cause pain for some people are the facet joints. Facet joints connect the bones of the spine (vertebrae) to stabilize your back and help your spine move. Arthritis or boney changes can develop in these small joints. It is felt that nerves can be compressed by the arthritic changes and lead to pain. Studies have shown that for a small number of people, back pain can be improved by destruction of these nerves (denervation). The nerves are destroyed using a form of electrical waves known as non-pulsed radiofrequency waves. Often the denervation must be repeated every 6 to 12 months because the nerves grow back. Because only a small number of people respond to this treatment, it is important to undergo temporary nerve blocks to identify who will get relief from the radiofrequency treatment. This service must be pre-approved by the plan before it is covered. Records that show at least two successful temporary nerve blocks are needed. Studies have shown that other methods of destroying these nerves (such as pulsed radiofrequency, heat, laser, chemical or freezing) do not work.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for

providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Policy Coverage Criteria

Procedure	Medical Necessity

Non-pulsed radiofrequency denervation:
• Cervical
• Lumbar
• Thoracic
	Non-pulsed radiofrequency denervation of cervical facet joints (C2-3 and below), thoracic facet joints, and lumbar facet joints is considered medically necessary when ALL of the following criteria are met:
	• There is no prior spinal fusion surgery in the vertebral level being treated,
	AND
	• Individual has experienced disabling low back (lumbosacral), thoracic, or neck (cervical) pain for greater than three (3) months, suggestive of facet joint origin and other causes of cervical, thoracic, or lumbar pain such as disc herniation or narrowing of the vertebral canal have been excluded as documented in the medical record and radiographic imaging performed within the last 12 months,
	AND
	• Pain has failed to respond to three (3) months of conservative management, which may consist of therapies such as oral analgesics (nonsteroidal anti-inflammatory medications, acetaminophen), manipulation or physical therapy, or a home exercise program,
	AND
	• There has been a successful trial of controlled medial branch blocks (MBBs)
	  ○ Consisting of 2 separate positive blocks on different days with local anesthetic only [no steroid or other drugs], and
	  ○ Resulted in at least 80% pain relief for the duration of the anesthetic used from each medial branch block, and
	  ○ Involves the vertebral levels being considered for radiofrequency (RF) denervation (see **Related Information**)

Procedure	Medical Necessity
	OR • If there has been a prior successful radiofrequency denervation, a minimum time of six (6) months has elapsed since prior RF treatment (per side, per anatomical level of the spine) ○ There should be a progress note supporting response to prior RF treatment
Additional diagnostic medial branch blocks	**If there has been a prior successful radiofrequency denervation, additional diagnostic medial branch blocks for the same level of the spine are not medically necessary.**

Procedure	Investigational
Radiofrequency denervation	**Radiofrequency denervation is considered investigational for the treatment of chronic spinal/back pain for all uses that do not meet the criteria listed above.**
Therapeutic medial branch blocks	**Therapeutic medial branch blocks are considered investigational.**
All other methods of facet denervation	**All other methods of denervation are considered investigational for the treatment of chronic spinal/back pain, including, but not limited to** • Pulsed radiofrequency denervation • Laser denervation • Chemodenervation ○ Alcohol, phenol, or high-concentration local anesthetics • Cryodenervation • Cooled radiofrequency ablation for facet denervation (e.g., COOLIEF) • Endoscopic radiofrequency denervation

Documentation Requirements
For requests for non-pulsed radiofrequency denervation of cervical facet joints (C2-3 and below), thoracic facet joints, or lumbar facet joints, please provide the following current clinical notes: • The level and side (right or left) you are planning to treat • Documentation that no prior spinal fusion surgery was done in the vertebral level (the specific area) being treated

Documentation Requirements

- Detailed history and physical with notes detailing how long the individual has experienced disabling thoracic, low back, or neck pain
- Evidence that suggests the pain is arising from the facet joint and documentation that other causes of the pain have been ruled out (e.g., copy of imaging from the last 12 months showing absence of disc herniation or narrowing of the vertebral canal)
- Conservative treatment tried/failed for at least 3 months (conservative treatment may consist of therapies such as oral analgesics [nonsteroidal anti-inflammatory medications, acetaminophen], manipulation or physical therapy, or a home exercise program)
- Documentation of successful trial of controlled diagnostic medial branch blocks: Documentation shows at least 80% pain relief for the duration of anesthetic used from both medial branch blocks
  - Medial branch blocks should consist of 2 separate positive blocks on different days with local anesthetic only (no steroids or other drugs)
  - Medial branch blocks should involve the vertebral levels being considered for radiofrequency treatment
- If there has been a prior successful radiofrequency denervation:
  - There should be documentation that a minimum of six (6) months has passed since prior radiofrequency treatment (per side, per vertebral level of the spine)
  - Clinical note showing response to prior radiofrequency treatment

Coding

Code	Description
CPT	
64633	Destruction by neurolytic agent, paravertebral facet joint nerve(s) with imaging guidance (CT or fluoroscopy); cervical or thoracic, single facet joint
64634	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional facet joint (List separately in addition to code for primary procedure)
64635	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint
64636	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional facet joint (List separately in addition to code for primary procedure)

Code	Description
64999	Unlisted procedure, nervous system

Related Information

Definition of Terms

Diagnosis of facet-mediated pain: This requires the establishment of pain relief following dual medial branch blocks (MBBs) performed at different sessions. Neither physical exam nor imaging has adequate diagnostic power to confidently distinguish the facet joint as the pain source.

Facet joints (also referred to as zygapophyseal or Z-joints): These enable the spine to bend and twist. Each vertebra has a set of facet joints at the top and bottom. Two medial branch (MB) nerves innervate the zygapophyseal joints.

Region: All injections performed in cervical/thoracic, or all injections performed in lumbar (not sacral) spinal areas.

Session: All injections/blocks/radiofrequency (RF) procedures performed on one day and includes medial branch blocks (MBB), intraarticular injections (IA), facet cyst ruptures, and RF ablations.

Diagnostic Medial Branch Block Criteria

- A successful trial of controlled diagnostic medial branch blocks consists of 2 separate positive blocks on different days with local anesthetic only (no steroids or other drugs), **OR**
- A placebo-controlled series of blocks, under fluoroscopic guidance, that has resulted in at least an 80% reduction in pain for the duration of the local anesthetic used (e.g., 3 hours longer with bupivacaine than lidocaine).
- No therapeutic intra-articular injections (i.e., steroids, saline, or other substances) should be administered for a period of at least 4 weeks prior to the diagnostic medial branch block.
- The diagnostic blocks should involve the levels being considered for RF treatment and should not be conducted under intravenous sedation unless specifically indicated (e.g., the individual is unable to cooperate with the procedure).

- These diagnostic blocks should be targeted to the likely pain generator. Single-level blocks lead to more precise diagnostic information, but multiple single-level blocks require several visits and additional exposure to radiation.

Evidence Review

Description

Facet denervation is used to treat neck and back pain originating in facet joints with degenerative changes. Diagnosis of facet joint pain is confirmed by response to nerve blocks. The goal of facet denervation is long-term pain relief. However, the nerves regenerate and, therefore, repeat procedures may be required.

Background

Facet Joint Denervation

Percutaneous radiofrequency (RF) facet denervation is used to treat neck or back pain originating in facet joints with degenerative changes. Diagnosis of facet joint pain is confirmed by response to nerve blocks. Patients generally are sedated for the RF procedure. The goal of facet denervation is long-term pain relief. However, the nerves regenerate and, therefore, repeat procedures may be required

Facet joint denervation is performed under local anesthetic and with fluoroscopic guidance. A needle or probe is directed to the median branch of the dorsal ganglion innervating the facet joint, where multiple thermal lesions are produced, typically by an RF generator. A variety of terms may be used to describe RF denervation (e.g., rhizotomy, rhizolysis). In addition, the structures to which the RF energy is directed may be referred to as facet joint, facet nerves, medial nerve or branch, median nerve or branch, or dorsal root ganglion.

Alternative methods of denervation include pulsed RF, laser, chemodenervation and cryoablation, cooled radiofrequency denervation, and endoscopic radiofrequency ablation. Pulsed RF consists of short bursts of electric current of high voltage in the RF range but without heating the tissue enough to cause coagulation. RF is suggested as a possibly safer alternative to thermal RF facet denervation. Temperatures do not exceed 42°C at the probe tip versus

temperatures in the 60°C range reached in thermal RF denervation, and tissues may cool between pulses. It is postulated that transmission across small unmyelinated nerve fibers is disrupted but not permanently damaged, while large, myelinated fibers are not affected. With chemical denervation, injections with a diluted phenol solution, a chemical ablating agent, are injected into the facet joint nerve. Endoscopic radiofrequency ablation (rhizotomy) is an alternative to percutaneous electrode RFA. It is a posterior endocscopic method using a cannula with a video camera at one end and a specially designed radiofrequency bipolar electrode.

Summary of Evidence

For individuals with suspected facet joint pain who receive diagnostic medial branch blocks, the evidence includes systematic reviews, a small, randomized trial, and observational studies. The relevant outcomes are other test performance measures, symptoms, and functional outcomes. There is considerable controversy about the role of these blocks, the number of positive blocks required, and the extent of pain relief obtained. Studies have reported the use of single or double blocks and at least 50% or 80% improvement in pain and function. This evidence has suggested that there are relatively few individuals who exhibit pain relief following two nerve blocks, but that these select individuals may have pain relief for several months following radiofrequency (RF) denervation. Other large series have reported the prevalence and false-positive rates following controlled diagnostic blocks, although there are issues with the reference standards used in these studies because there is no criterion standard for the diagnosis of facet joint pain. There is level I evidence for the use of medial branch blocks for diagnosing chronic lumbar facet joint pain and level II evidence for diagnosing cervical and thoracic facet joint pain. The evidence available supports a threshold of at least 75% to 80% pain relief to reduce the false-positive rate. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with facet joint pain who receive radiofrequency ablation (RFA), the evidence includes systematic reviews and randomized controlled trials (RCTs). The relevant outcomes are symptoms, functional outcomes, quality of life, and medication use. While the evidence is limited to RCTs with small sample sizes, RF facet denervation appears to provide at least 50% pain relief in carefully selected individuals. Diagnosis of facet joint pain is difficult. However, response to controlled medial branch blocks and the presence of tenderness over the facet joint appears to be reliable predictors of success. When RF facet denervation is successful, repeat treatments appear to have similar success rates and duration of pain relief. Thus, the data indicate that, in carefully selected individuals with lumbar or cervical facet joint pain, RF

treatments can improve outcomes. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with facet joint pain who receive therapeutic medial nerve branch blocks or alternative methods of facet joint denervation the evidence includes a systematic review, randomized trials without a sham control, and uncontrolled case series. The relevant outcomes are symptoms, functional outcomes, quality of life, and medication use. Pulsed RF does not appear to be as effective as conventional RF denervation, and there is insufficient evidence to evaluate the efficacy of other methods of denervation (e.g., alcohol, laser, cryodenervation) for facet joint pain or the effect of therapeutic medial branch blocks on facet joint pain. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

McCormick et al (2014) stated that while cooled radiofrequency ablation (C-RFA) appeared to be a promising technology for joint denervation, outcomes of this technique for the treatment of lumbar facet syndrome have not been described. The authors concluded that the findings in this case series study suggested that C-RFA may improve function and to a lesser degree pain at long-term follow-up. However, a randomized, controlled trial is needed. A subsequent RCT (McCormick et al, 2019) of small sample size and only 6-month follow-up showed no significant differences between C-RFA and traditional RFA for the treatment of lumbar facet joint pain.

Clinical outcomes from a pilot study evaluating endoscopic radiofrequency ablation (rhizotomy) were presented as a professional society conference abstract, (Yeung et al. 2011). An RCT, (Xue et al 2020), suggests that radiofrequency ablation under endoscopic guidance may achieve more accurate and definite denervation on the nerves, which may lead to longer lasting pain relief. Sample size was small (N-60). There is insufficient evidence identified in the published medical literature to determine the safety and efficacy of endoscopic radiofrequency ablation for the treatment of facet joint related pain.

Ongoing and Unpublished Clinical Trials

Currently ongoing and unpublished trials that might influence this review are listed in **Table 1**.

Table 1. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date
Ongoing			
NCT03066960	Long Term Efficacy of Radiofrequency Neurotomy for Chronic Zygapophysial (Facet) Joint Related Neck Pain	34	Dec 2025
NCT05952518	Evaluation of Peripheral Nerve Stimulation as an Alternative to Radiofrequency Ablation for Facet Joint Pain	70	Oct 2027
Unpublished			
NCT02073292[a]	A Randomized Controlled Trial Comparing Thermal and Cooled Radiofrequency Ablation Techniques of Thoracic Facets' Medial Branches to Manage Thoracic Pain	16	Dec 2022

NCT: national clinical trial.

[a] Denotes industry-sponsored or cosponsored trial.

Clinical Input Received From Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

2010 Input

In response to requests, input was received from four physician specialty societies and five academic medical centers (six responses) while this policy was under review in 2010. Input supported the use of radiofrequency denervation for facet joint pain. Those providing input supported the use of two diagnostic blocks achieving a 50% reduction in pain.

Practice Guidelines and Position Statements

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the policy conclusions.

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Association of Neurological Surgeons and Congress of Neurological Surgeons

In 2014, the American Association of Neurological Surgeons and the Congress of Neurological Surgeons (CNS) updated their joint guidelines on the treatment of degenerative disease of the lumbar spine.[35] The two groups provided grade B recommendations: (1) intra-articular injections of lumbar facet joints were not suggested for the treatment of facet-mediated chronic low back pain; (2) medial nerve blocks were suggested for the short-term relief of facet-mediated chronic low back pain; and (3) lumbar medial nerve ablation was suggested for the short-term (3- to 6-month) relief of facet-mediated pain in individuals who have chronic lower back pain without radiculopathy from degenerative disease of the lumbar spine.

American Society of Interventional Pain Physicians

In 2020, the American Society of Interventional Pain Physicians published guidelines on use of facet joint interventions for management of chronic spinal pain.[36] Use of facet joint nerve blocks for diagnosis of facet joint pain is recommended with a moderate to strong strength of recommendation for the lumbar spine (evidence level I to II), moderate strength for the cervical spine (evidence level II), and moderate strength for the thoracic spine (evidence level II); a criterion standard of ≥80% pain relief was included for these recommendations. RFA is recommended for treatment of pain in the lumbar spine (moderate strength recommendation; evidence level II), cervical spine (moderate strength recommendation; evidence level II), and thoracic spine (weak to moderate strength recommendation; evidence level III). Facet joint nerve blocks are recommended for treatment of pain in the lumbar spine (moderate strength recommendation; evidence level II), cervical spine (moderate strength recommendation; evidence level II), and thoracic spine (weak to moderate strength recommendation; evidence level III). Treatment of facet joint pain with intraarticular injections is a weak strength recommendation with lower levels of evidence (level III, IV, and V evidence for the thoracic, lumbar, and cervical spine respectively).

American Society of Regional Anesthesia & Pain Medicine, et al.

International consensus guidelines published by the American Society of Regional Anesthesia & Pain Medicine and including 13 different pain societies (2020) provide recommendations regarding interventions for lumbar facet joint pain specifically.[37], When used for diagnosis, the guidelines suggest that intra-articular injections are more diagnostic than medial branch blocks (MBB), but note that intra-articular injections have a high technical failure rate and provide less predictive value when administered prior to RFA (grade B evidence, low level of certainty). For therapeutic treatment of lumbar facet pain the guideline recommends against use of medial branch blocks or intra-articular injections (grade D evidence, moderate level of certainty), although acknowledges certain clinical scenarios which may warrant these techniques, such as a contraindication to RFA.

Similarly, 18 pain societies created consensus guidelines on interventions for cervical spine joint pain (2022).[38], The group states, "Medial branch RFA is considered to be a definitive durable analgesic treatment for patients with neck pain arising from the cervical facet joints." They also state, "...MBBs meet most criteria as a diagnostic intervention for cervical joint-mediated pain...."

The World Federation of Neurosurgical Societies Spine Committee

The World Federation of Neurosurgical Societies Spine Committee (2020) released recommendations on the treatment of and pain relief techniques in individuals with lumbar spinal stenosis.[39] Statements that reached a positive committee consensus regarding facet joint pain are listed below.

- "Statement 10: Facet joint injections provide a useful diagnostic tool for LBP [lower back pain]."

National Institute for Health and Care Excellence

In 2016, the U.K. National Institute for Health and Care Excellence (NICE) published guidance on the assessment and management of low back pain and sciatica in those over 16 years of age.[40] The NICE recommended that radiofrequency (RF) denervation can be considered for individuals with chronic low back pain when "non-surgical treatment has not worked for them and the main source of pain is thought to come from structures supplied by the medial branch nerve and they

have moderate or severe levels of localized back pain." RF denervation should only be performed "after a positive response to a diagnostic medial branch block." The NICE cautioned that the length of pain relief after RF denervation is uncertain, and that results from repeat RF denervation procedures are also uncertain.

North American Spine Society Guideline

In 2020, the North American Spine Society (NASS) published guidance on the diagnosis and management of nonspecific low back pain in those 18 years of age and older.[41] NASS recommends that in facet joint procedures, for individuals responsive to a single diagnostic intra-articular injection with 50% relief, it is suggested that intra-articular steroids will provide no clinically meaningful improvement at 6 months (grade B level of evidence; fair evidence). Additionally, in these individuals there is insufficient evidence to recommend for or against using radiofrequency neurotomy or periarticular phenol injections (grade I, insufficient or conflicting evidence). There is insufficient evidence for or against the use of single-photon emission computerized tomography (SPECT) imaging or the use of uncontrolled medial branch blocks versus pericapsular blocks for the diagnosis of zygapophyseal joint pain (both grade 1, insufficient or conflicting evidence). There is insufficient evidence to recommend for or against using a 50% pain reduction following medial branch blockade to diagnose zygapophyseal joint pain (grade 1, insufficient or conflicting evidence). The use of cryodenervation has insufficient evidence for the treatment of zygapophyseal joint pain (grade I, insufficient or conflicting evidence); however, thermal radiofrequency ablation is suggested for individuals with zygapophyseal joint low back pain, with relief durable for at least 6 months following the procedure (grade B, fair evidence). Cooled radiofrequency ablation of sacral lateral branch nerves and the dorsal ramus of L5 can be considered for sacroiliac joint pain diagnosed by dual blocks (grade C, poor quality evidence).

Medicare National Coverage

There is no national coverage determination.

Regulatory Status

A number of RF generators and probes have been cleared for marketing by the US Food and Drug Administration (FDA) through the 510(k) process. In 2005, the SInergy (Kimberly

Clark/Baylis), a water-cooled single-use probe, was cleared by the FDA, listing the Baylis Pain Management Probe as a predicate device. The intended use is with an RF generator to create RF lesions in nervous tissue.

FDA product code: GXD

References

1. Boswell MV, Manchikanti L, Kaye AD, et al. A Best-Evidence Systematic Appraisal of the Diagnostic Accuracy and Utility of Facet (Zygapophysial) Joint Injections in Chronic Spinal Pain. Pain Physician. 2015; 18(4): E497-533. PMID 26218947
2. Falco FJ, Datta S, Manchikanti L, et al. An updated review of the diagnostic utility of cervical facet joint injections. Pain Physician. 2012; 15(6): E807-38. PMID 23159977
3. Falco FJ, Manchikanti L, Datta S, et al. Systematic review of the therapeutic effectiveness of cervical facet joint interventions: an update. Pain Physician. 2012; 15(6): E839-68. PMID 23159978
4. Falco FJ, Manchikanti L, Datta S, et al. An update of the effectiveness of therapeutic lumbar facet joint interventions. Pain Physician. 2012; 15(6): E909-53. PMID 23159980
5. Falco FJ, Manchikanti L, Datta S, et al. An update of the systematic assessment of the diagnostic accuracy of lumbar facet joint nerve blocks. Pain Physician. 2012; 15(6): E869-907. PMID 23159979
6. Cohen SP, Strassels SA, Kurihara C, et al. Randomized study assessing the accuracy of cervical facet joint nerve (medial branch) blocks using different injectate volumes. Anesthesiology. Jan 2010; 112(1): 144-52. PMID 19996954
7. Cohen SP, Stojanovic MP, Crooks M, et al. Lumbar zygapophysial (facet) joint radiofrequency denervation success as a function of pain relief during diagnostic medial branch blocks: a multicenter analysis. Spine J. 2008; 8(3): 498-504. PMID 17662665
8. Pampati S, Cash KA, Manchikanti L. Accuracy of diagnostic lumbar facet joint nerve blocks: a 2-year follow-up of 152 patients diagnosed with controlled diagnostic blocks. Pain Physician. 2009; 12(5): 855-66. PMID 19787011
9. Manchikanti L, Pampati S, Cash KA. Making sense of the accuracy of diagnostic lumbar facet joint nerve blocks: an assessment of the implications of 50% relief, 80% relief, single block, or controlled diagnostic blocks. Pain Physician. 2010; 13(2): 133-43. PMID 20309379
10. Li H, An J, Zhang J, et al. Comparative efficacy of radiofrequency denervation in chronic low back pain: A systematic review and network meta-analysis. Front Surg. 2022; 9: 899538. PMID 35990102
11. Janapala RN, Manchikanti L, Sanapati MR, et al. Efficacy of Radiofrequency Neurotomy in Chronic Low Back Pain: A Systematic Review and Meta-Analysis. J Pain Res. 2021; 14: 2859-2891. PMID 34531682
12. Nath S, Nath CA, Pettersson K. Percutaneous lumbar zygapophysial (Facet) joint neurotomy using radiofrequency current, in the management of chronic low back pain: a randomized double-blind trial. Spine (Phila Pa 1976). May 20 2008; 33(12): 1291-7; discussion 1298. PMID 18496338
13. Tekin I, Mirzai H, Ok G, et al. A comparison of conventional and pulsed radiofrequency denervation in the treatment of chronic facet joint pain. Clin J Pain. 2007; 23(6): 524-9. PMID 17575493
14. van Wijk RM, Geurts JW, Wynne HJ, et al. Radiofrequency denervation of lumbar facet joints in the treatment of chronic low back pain: a randomized, double-blind, sham lesion-controlled trial. Clin J Pain. 2005; 21(4): 335-44. PMID 15951652

15. Lakemeier S, Lind M, Schultz W, et al. A comparison of intraarticular lumbar facet joint steroid injections and lumbar facet joint radiofrequency denervation in the treatment of low back pain: a randomized, controlled, double-blind trial. Anesth Analg. Jul 2013; 117(1): 228-35. PMID 23632051

16. Manchikanti L, Kaye AD, Boswell MV, et al. A Systematic Review and Best Evidence Synthesis of the Effectiveness of Therapeutic Facet Joint Interventions in Managing Chronic Spinal Pain. Pain Physician. 2015; 18(4): E535-82. PMID 26218948

17. Civelek E, Cansever T, Kabatas S, et al. Comparison of effectiveness of facet joint injection and radiofrequency denervation in chronic low back pain. Turk Neurosurg. 2012; 22(2): 200-6. PMID 22437295

18. Lord SM, Barnsley L, Wallis BJ, et al. Percutaneous radio-frequency neurotomy for chronic cervical zygapophyseal-joint pain. N Engl J Med. Dec 05 1996; 335(23): 1721-6. PMID 8929263

19. van Eerd M, de Meij N, Kessels A, et al. Efficacy and Long-term Effect of Radiofrequency Denervation in Patients with Clinically Diagnosed Cervical Facet Joint Pain: A Double-blind Randomized Controlled Trial. Spine (Phila Pa 1976). Mar 01 2021; 46(5): 285-293. PMID 33534439

20. Husted DS, Orton D, Schofferman J, et al. Effectiveness of repeated radiofrequency neurotomy for cervical facet joint pain. J Spinal Disord Tech. Aug 2008; 21(6): 406-8. PMID 18679094

21. Schofferman J, Kine G. Effectiveness of repeated radiofrequency neurotomy for lumbar facet pain. Spine (Phila Pa 1976). Nov 01 2004; 29(21): 2471-3. PMID 15507813

22. Smuck M, Crisostomo RA, Trivedi K, et al. Success of initial and repeated medial branch neurotomy for zygapophysial joint pain: a systematic review. PM R. Sep 2012; 4(9): 686-92. PMID 22980421

23. Rambaransingh B, Stanford G, Burnham R. The effect of repeated zygapophysial joint radiofrequency neurotomy on pain, disability, and improvement duration. Pain Med. Sep 2010; 11(9): 1343-7. PMID 20667024

24. Manchikanti L, Singh V, Falco FJ, et al. Comparative outcomes of a 2-year follow-up of cervical medial branch blocks in management of chronic neck pain: a randomized, double-blind controlled trial. Pain Physician. 2010; 13(5): 437-50. PMID 20859313

25. Manchikanti L, Singh V, Falco FJ, et al. Evaluation of lumbar facet joint nerve blocks in managing chronic low back pain: a randomized, double-blind, controlled trial with a 2-year follow-up. Int J Med Sci. May 28 2010; 7(3): 124-35. PMID 20567613

26. Manchikanti L, Singh V, Falco FJ, et al. Comparative effectiveness of a one-year follow-up of thoracic medial branch blocks in management of chronic thoracic pain: a randomized, double-blind active controlled trial. Pain Physician. 2010; 13(6): 535-48. PMID 21102966

27. Manchikanti L, Singh V, Falco FJ, et al. The role of thoracic medial branch blocks in managing chronic mid and upper back pain: a randomized, double-blind, active-control trial with a 2-year followup. Anesthesiol Res Pract. 2012; 2012: 585806. PMID 22851967

28. Moussa WM, Khedr W, Elsawy M. Percutaneous pulsed radiofrequency treatment of dorsal root ganglion for treatment of lumbar facet syndrome. Clin Neurol Neurosurg. Dec 2020; 199: 106253. PMID 33045627

29. Hashemi M, Hashemian M, Mohajerani SA, et al. Effect of pulsed radiofrequency in treatment of facet-joint origin back pain in patients with degenerative spondylolisthesis. Eur Spine J. Sep 2014; 23(9): 1927-32. PMID 24997616

30. Kroll HR, Kim D, Danic MJ, et al. A randomized, double-blind, prospective study comparing the efficacy of continuous versus pulsed radiofrequency in the treatment of lumbar facet syndrome. J Clin Anesth. Nov 2008; 20(7): 534-7. PMID 19041042

31. Van Zundert J, Patijn J, Kessels A, et al. Pulsed radiofrequency adjacent to the cervical dorsal root ganglion in chronic cervical radicular pain: a double blind sham controlled randomized clinical trial. Pain. Jan 2007; 127(1-2): 173-82. PMID 17055165

32. Iwatsuki K, Yoshimine T, Awazu K. Alternative denervation using laser irradiation in lumbar facet syndrome. Lasers Surg Med. Mar 2007; 39(3): 225-9. PMID 17345622

33. Joo YC, Park JY, Kim KH. Comparison of alcohol ablation with repeated thermal radiofrequency ablation in medial branch neurotomy for the treatment of recurrent thoracolumbar facet joint pain. J Anesth. Jun 2013; 27(3): 390-5. PMID 23192698

34. Haufe SM, Mork AR. Endoscopic facet debridement for the treatment of facet arthritic pain--a novel new technique. Int J Med Sci. May 25 2010; 7(3): 120-3. PMID 20567612

35. Watters WC, Resnick DK, Eck JC, et al. Guideline update for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 13: injection therapies, low-back pain, and lumbar fusion. J Neurosurg Spine. Jul 2014; 21(1): 79-90. PMID 24980590

36. Manchikanti L, Kaye AD, Soin A, et al. Comprehensive Evidence-Based Guidelines for Facet Joint Interventions in the Management of Chronic Spinal Pain: American Society of Interventional Pain Physicians (ASIPP) Guidelines Facet Joint Interventions 2020 Guidelines. Pain Physician. May 2020; 23(3S): S1-S127. PMID 32503359

37. Cohen SP, Bhaskar A, Bhatia A, et al. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. Reg Anesth Pain Med. Jun 2020; 45(6): 424-467. PMID 32245841

38. Hurley RW, Adams MCB, Barad M, et al. Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group. Reg Anesth Pain Med. Jan 2022; 47(1): 3-59. PMID 34764220

39. Fornari M, Robertson SC, Pereira P, et al. Conservative Treatment and Percutaneous Pain Relief Techniques in Patients with Lumbar Spinal Stenosis: WFNS Spine Committee Recommendations. World Neurosurg X. Jul 2020; 7: 100079. PMID 32613192

40. National Institute for Health and Clinical Excellence (NICE). NICE guideline [NG59]: Low back pain and sciatica in over 16s: assessment and management. 2016. Updated 2020; **https://www.nice.org.uk/guidance/NG59**. Accessed December 5, 2024.

41. Evidence Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis and Treatment of Low Back Pain. American Spine Society. **https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBackPain.pdf**. Published 2020. Accessed December 5, 2024.

42. McCormick ZL, Walker, J, et al. A novel modality for facet joint denervation: Cooled radiofrequency ablation for lumbar facet syndrome. A case series. Phys Med Rehabil Int. 2014; 1 (5):5.

43. McCormick ZL, Choi H, Reddy R, et al. Randomized prospective trial of cooled versus traditional radiofrequency ablation of the medial branch nerves for the treatment of lumbar facet joint pain. Reg Anesth Pain Med. 2019; 44(3): 389-397. PMID: 30777903.

44. Yeung AT, Zheng Y, Yeung C, Filed J, Meredith C. Endoscopic dorsal rhizotomy, a new anatomically guided MIS procedure is more effective than traditional pulsed radiofrequency lesioning for non-discogenic axial back pain. The International Society for the Advancement of Spine Surgery Annual Meeting 2011.PMID: 25694936.

45. Xue Y, Ding T, Wang D, et al. Endoscopic rhizotomy for chronic lumbar zypaopphysial joint pain. J Orthop Surg Res. 2020; 15 (1): 4. PMID: 31900227.

46. Meloncelli S, Germani G, Urti I, et al. Endoscopic radiofrequency facet joint treatment in patients with low back pain: technique and long-term results. A prospective cohort study. Ther Adv Musculoskelet Dis. 2020; 1(12):1759720X20958979. PMID: 33294037.

47. Du T, Lu G, Li J., et al. Pain-free survival after endoscopic rhizotomy versus radiofrequency for lumbar facet joint pain: A real-world comparison study. Pain Physician. 2022; 25(1): E87-E94. PMID: 35051155.

History

Date	Comments
05/12/14	New PR policy replacing 7.01.116, same title. Policy coverage on non-pulsed RF now considered medically necessary for level C2-3 (is investigational at C2 in policy 7.01.116) when criteria are met including two controlled medial branch blocks (MBBs)

Date	Comments
	with an indication of at least 80% relief for the duration of the anesthetic prior to performing the second MBB. Unlisted CPT code 64999 removed; there are CPT codes specific to this policy referenced within. ICD-9 and ICD-10 diagnosis and procedure codes removed; these to not facilitate adjudication, this is outpatient.
05/27/15	Annual Review. Policy updated with literature review through March, 2015. Definition of Terms added to Policy Guidelines based on CMS language. References 20 and 31 added; others renumbered/removed. Policy statements unchanged.
02/16/16	Coding update. Added 64999.
11/01/16	Annual Review, approved October 11, 2016. Literature search. No changes to policy statement. Policy moved into new format. Removed unlisted CPT code 64999 from coding section.
12/01/17	Annual Review, approved November 9, 2017. Policy updated with literature review through October 2017. References 12, 13, 42, 43, 44 added Clarified criteria statement for facet joint origin pain. Removed CPT code 64999.
03/01/18	Minor update; added Documentation Requirements section. Updated Related Policy number; 6.01.23 changed to 6.01.524.
07/01/18	Interim Review, minor update approved June 22, 2018. Added cooled radiofrequency ablation to list of all other methods of denervation which are considered investigational. Reference 45 added.
12/01/18	Annual Review, approved November 21, 2018. Policy updated with literature review; no references added. Policy statements unchanged.
02/01/19	Annual Review, approved January 4, 2019. Policy updated with literature review through September 2018; no references added. Policy statements unchanged.
08/01/19	Interim Review, approved July 9, 2019. Reference added. Added endoscopic radiofrequency ablation/rhizotomy to the list of denervation methods considered investigational for the treatment of facet joint related pain. Added CPT code 64999.
02/01/20	Annual Review, approved January 9, 2020. Policy updated with literature review through September 2019; no references added. Policy statements unchanged.
04/01/20	Delete policy, approved March 10, 2020. This policy will be deleted effective July 2, 2020, and replaced with InterQual criteria for dates of service on or after July 2, 2020.
06/10/20	Interim Review, approved June 9, 2020, effective June 10, 2020. This policy is reinstated immediately and will no longer be deleted or replaced with InterQual criteria on July 2, 2020.
02/01/21	Annual Review, approved January 6, 2021. Policy updated with literature review through September 18, 2020; references added. Policy statements unchanged.
02/01/22	Annual Review, approved January 10, 2022. Policy updated with literature review through September 29, 2021; references added. Policy statements unchanged.

Date	Comments
08/01/22	Interim Review, approved July 12, 2022. Changed radiofrequency denervation to thoracic facet joints from investigational to medically necessary.
08/23/22	Minor clarifying edit, parenthetical word "rhizotomy" removed from endoscopic radiofrequency denervation bullet. Minor edit made to procedure section, to align with Thoracic policy criteria. Policy intent unchanged.
10/01/22	Update to Related Policies. Removed related policy 7.01.120 Facet Arthroplasty due to archival.
02/01/23	Annual Review, approved January 9, 2023. Policy updated with literature review through September 30, 2022; references added. Minor editorial refinements to policy statements; intent unchanged. Changed the wording from "patient" to "individual" throughout the policy for standardization.
06/14/23	Policy Correction. Removed the documentation requirement stating that a diagnostic medial branch block should not be conducted under intravenous sedation unless specifically indicated as this is a policy guideline and not a policy criterion.
02/01/24	Annual Review, approved January 22, 2024. Policy updated with literature review through September 14, 2023; references added. Minor clarifying edits made for greater clarity regarding medial branch blocks. Otherwise, policy statements unchanged. Policy intent unchanged.
09/01/24	Interim Review, approved August 13, 2024. Clarified the statement that suggests the pain is arising from the facet joint and documentation that other causes of the pain have been ruled out by adding that a copy of "imaging from the last 12 months" showing absence of disc herniation or narrowing of the vertebral canal should be used to confirm this.
02/01/25	Annual Review, approved January 13, 2025. Policy updated with literature review through October 6, 2024; no references added. Policy statements unchanged.

Scope: Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.