Cohere Medical Policy - Facet Joint Radiofrequency Ablation (RFA)

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Facet Joint Radiofrequency Ablation (RFA)

Date of last literature review: 11/14/2024
Document last updated: 12/19/2024
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Facet Joint Radiofrequency Ablation (RFA)

Recommended Clinical Approach

Facet joint radiofrequency ablation (RFA), also known as radiofrequency neurotomy (RFN), is a minimally invasive technique to denervate facet joints with thermal energy and interrupt pain perception in patients with chronic facet joint pain in the cervical, thoracic, or lumbar regions. Facet joint pain is diagnosed by clinical signs, radiological tests, and diagnostic facet injections or medial branch blocks (MBBs).[1-2,4]

Medical Necessity Criteria

Indications

- ➔ **Facet joint radiofrequency ablation (RFA)** is considered appropriate if **ALL** of the following are **TRUE**[1,3-7]:
  - ◆ The pain is predominantly axial neck or back pain; **AND**
  - ◆ **ANY** of the following are **TRUE**:
    - The patient's pain level is greater than or equal to 4 out of 10 on a scale of 0 to 10; **OR**
    - The pain is causing a functional disability; **AND**
  - ◆ Failure of conservative management for greater than 3 months, including **ALL** of the following[8]:
    - Anti-inflammatory medications, analgesics, or prescription medications (e.g., oral steroids, narcotics, neuropathic pain medications) if not contraindicated; **AND**
    - Physical therapy; **AND**
  - ◆ The patient does not have untreated radiculopathy (except caused by facet joint synovial cyst) as the primary pain generator; **AND**
  - ◆ Physical Exam findings are suggestive of facet-mediated pain (e.g, pain exacerbated by extension, rotation, facet loading, etc.); **AND**

- A radiology study has ruled out non-facet pathology that can explain the source of the patient's pain; **AND**
- Frequency limitation indicated by **ALL** of the following:
    - No more than 1 spinal region (cervical, thoracic, or lumbosacral) is injected per session; **AND**
    - No more than 2 facet joint levels (either unilateral or bilateral) are ablated per spine region per session; **AND**
    - No more than 2 facet RFA procedures per spinal region in 12 consecutive months. (Unilateral RFA performed at the same level on the right vs. left within 1 month of each other are considered one procedure toward the total number of RFA procedures allowed per 12 months); **AND**
- The request is for **ANY** of the following:
    - Initial RFA request with **ALL** of the following:
        - Two medically necessary diagnostic facet injections/medial branch blocks (MBBs) within the last 1 year; **AND**
        - Each diagnostic injection/MBB provides greater than or equal to 80% sustained relief of primary (index) pain (with the duration of relief being consistent with the agent used)[1-2]; **OR**
    - A repeat RFA request at the same anatomic site (same level and side) with **ALL** of the following:
        - The previous RFA provided greater than or equal to 50% improvement in pain**; AND**
        - The duration of pain relief is greater than or equal to 6 months[2]**; AND**
        - The patient is participating in ongoing rehabilitative approaches (e.g., physical therapy, chiropractic care, or physician-guided home exercise program)**.**

Non-Indications

➔ **Facet joint radiofrequency ablation (RFA)** is not considered appropriate if **ANY** of the following is **TRUE**[2]:

- Facet RFA performed without computed tomography [CT] or fluoroscopic guidance; **OR**
- Non-thermal modalities for facet joint denervation including chemical, low-grade thermal, pulsed radiofrequency energy (less

than 80°C), laser neurolysis, open surgical neurolysis, cryoablation, endoscopic neurolysis, and rhizotomy; **OR**

- The patient has had prior spinal fusion surgery at the levels to be treated; **OR**
- RFA/lesioning for non-spine related pain (including but not limited to coccydynia, coccygeal pain, sympathetic plexus, complex regional pain syndrome [CRPS], dorsal root ganglia, peripheral nerve ending, nerve plexus, pudendal neuralgia, etc.); **OR**
- RFA at atlanto-occipital joint (C0-C1) or atlanto-axial joint (C1-C2).

Level of Care Criteria

Inpatient or outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
64633	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); 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)
22899	Unlisted procedure, spine
64999	Unlisted procedure, nervous system

Medical Evidence

McCormick et al. (2023) conducted a randomized prospective clinical trial to compare the effectiveness of cooled lumbar medial branch radiofrequency ablation (LRFA) and intraarticular facet joint steroid injections (FJI). A total of 32 patients with dual medial branch block (MBB)-confirmed facet joint pain were randomized to receive cooled LRFA or FJI, and outcomes were assessed at 1, 3, 6, and 12 months. The study showed cooled LRFA demonstrated superior success rates in reducing pain compared to FJI.[9]

Shih et al. (2020) conducted a meta-analysis to compare the efficacy of thermal, pulsed, and cooled radiofrequency ablation (RFA) techniques for treating adult patients with lumbar facet joint (LFJ) or sacroiliac joint (SIJ) pain. The study showed all 3 RFA techniques significantly improved LFJ and SIJ pain for up to 12 months compared to baseline pain levels. In patients with LFJ pain, cooled RFA was the most effective, followed by thermal RFA and then pulsed RFA at 6 months. None of the techniques resulted in any serious adverse effects.[10]

Manchikanti et al. (2015) performed a systematic review to analyze the clinical efficacy of therapeutic facet joint interventions for individuals with chronic spinal pain. A literature review of 21 randomized control trials (RCTs) showed long-term efficacy is supported by evidence Level II for RFA neurotomy and facet joint nerve blocks for the lumbar, cervical, and lumbar spine. Intraarticular injections showed Level III (lumbar) and Level IV (cervical and thoracic) evidence. The primary outcome measure was short-term (6 months or less) and long-term (greater than 6 months) pain relief. Secondary outcome measures included improvement in functional status, psychological status, ability to return to work, and reduced opioid usage.[11]

Lee et al. (2017) performed a meta-analysis of RCTs to study the efficacy of RFA denervation in 454 patients with low back pain derived from facet joints and refractory to conservative treatment. Patients treated with RFA exhibited significantly greater improvements in back pain scores when compared with control sham procedures or epidural nerve blocks at the 1-year follow-up.[12]

National and Professional Organizations

The American Society of Interventional Pain Physicians (ASIPP) published guidelines for *Facet Joint Interventions in the Management of Chronic Spinal Pain*, including the following evidence[5]:

- Lumbar RFA is supported by 11 RCTs; 4 studies demonstrated long-term improvement.

- Cervical RFA is supported by 1 RCT; 2 observational studies demonstrate long-term improvement.
- Thoracic RFA is supported; however, evidence is still emerging, including 1 RCT and 3 observational studies.

The American Society of Regional Anesthesia and Pain Medicine (ASRA) published guidelines for *Interventions for Lumbar Facet Joint Pain*. The guidelines were developed in collaboration with a multispecialty, international working group and support lumbar medial branch RFA as MBB is more predictive than intraarticular injections.[3]

The North American Spine Society (NASS) published guidance on *Facet Joint Interventions*. Therapeutic medial branch radiofrequency neurotomy (RFN) is recommended for the treatment of facet joint pain. Long-term outcomes demonstrate positive treatment effects, especially in patients with a dual confirmatory diagnostic MBB. Repeat procedures also show a high level of success when the response to the previous procedure was effective for at least 3 months. Guidelines are also available for the *Diagnosis and Treatment of Low Back Pain*. Thermal RFA is supported. The Guideline notes the need for RCTs that focus on various interventions, including injections and neurotomy.[1,13]

The National Institute for Health and Care Excellence (NICE) has published guidance on *Low Back Pain and Sciatica.* Referral for radiofrequency denervation is recommended for individuals with chronic low back pain when non-surgical treatment is unsuccessful, the source of pain relates to the medial branch nerve, and pain is moderate to severe (5 or more on a visual analog scale or equivalent). Radiofrequency denervation is recommended in individuals with chronic low back pain following positive outcomes from a diagnostic MBB. Imaging is not recommended for individuals with low back pain who present with specific facet joint pain.[14]

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Clinical Guideline Revision History/Information

Original Date: October 13, 2023		
Review History		
Version 2	12/15/2023	
Version 3	9/20/2024	Updated language regarding conservative treatment.
Version 4	12/19/2024	• Annual review • Updated medical evidence • Updated references • Aligned to current policy format • Indications updated • Non-indications undated