Medical Affairs Policy

**Service:** Medial Branch Neuroablation (Medial Branch Neurolysis, Zygapophysial Joint Neurotomy, Radiofrequency Neuroablation, Radiofrequency Denervation, Medial Branch Neurotomy, Facet Neurotomy, Facet Rhizotomy, Continuous Radiofrequency Ablation, CRFA, Pulsed Radiofrequency) *PUM 250-0019*

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- Note: See previous Coverage Policy Bulletin or Medical Affairs Policy and Procedure for review/revision history prior to 2014

- **Disclaimer:** Benefit plans vary in coverage and some plans may not provide coverage for certain services listed in these policies. Coverage decisions are subject to all terms and conditions of the applicable benefit plan, including specific exclusions and limitations, and to applicable state and/or federal law. Medical policy does not constitute plan authorization, an explanation of benefits, or a guarantee of payment.

**Description:**

Non-pulsed continuous radiofrequency neuroablation, performed under fluoroscopic guidance, (also known as percutaneous radiofrequency facet denervation, radiofrequency (RF) facet joint rhizotomy, facet neurotomy, CRFA, and RFA), is the destruction of the medial branch nerve that innervates a symptomatic facet joint and is used to interrupt pain impulses.

Pulsed radiofrequency treatment, (also known as cold radiofrequency) performed under fluoroscopic guidance, entails the use of pulsed time cycle that delivers short bursts of RF energy to nervous tissue, but does not destroy the nerve.

The expected outcome of neuroablation is a decrease in pain symptoms that can last for six to eighteen months.

**Related Policies:** Facet Joint Injection, Medial Branch Nerve Block, and Sacroiliac Joint Treatments
Indications of Coverage:

For purposes of this policy: Radicular pain is defined as pain that radiates from the spine into the upper or lower extremity along the course of the spinal nerve root; the pain should follow the pattern of the sensory dermatome associated with the nerve root(s) identified. The pain may also be described as a burning or tingling sensation.

Neuroablation is considered medically necessary when all of the following criteria are met:

A. Chronic axial back or neck pain symptoms (at least three months in duration) without radicular pain symptoms

B. Failure of a one–month trial of more conservative therapies including all of the following:
   1. Medications such as anti-inflammatories, muscle relaxants, analgesics, opioids, gabapentin.
   2. Therapy: physical therapy/chiropractic manipulations performed, at some point, after the onset of the current episode of symptoms (Documentation of therapy administered by a Certified Athletic Trainer or regular participation in programs such as the Arthritis Foundation Exercise Program may also meet medical criteria for therapy)
   ➢ If the symptoms are severe (requiring urgent medical care) the trial of conservative therapy may not be required

C. Symptoms are not attributed to another identified source (such as disc herniation, radiculitis, spinal stenosis, tumor, infection, fracture)

D. Documentation of appropriately performed positive diagnostic anesthetic block(s). For additional details, see related policy: Facet Joint Injection and Medial Branch Nerve Block)

The diagnostic block(s) provided significant (at least 50%) relief from baseline scores following the procedure. And, the patient must demonstrate ability to perform previously painful maneuvers

- Symptom relief onset and duration must be concordant with the typical minimum onset of relief and duration of action for the specific local anesthetic used. Onset of action is 3-30 minutes. Duration of commonly used anesthetic without epinephrine is:
  - Lidocaine 30-120 minutes
  - Mepivacaine 30-120 minutes
  - Bupivacaine 120-240 minutes
  - Ropivacaine 120-360 minutes

- A confirmatory injection, with an anesthetic with a different duration of action than the initial diagnostic block is recommended. If performed, the
confirmatory injection must be performed at the same side and same level as the initial injection.

- The second diagnostic injection procedure (if performed) must be performed at least one week after the initial injection procedure.

Each level and side to be ablated must have documentation of a positive diagnostic block, or previous ablation at the same facet joint level and side. A maximum of 2 levels will be approved for ablation. Bilateral ablations will count as one level only if performed on the same date of service.

➢ More than 4 diagnostic facet or MBB injections regardless of location/level in a 12 month period are considered not medically necessary. A 12-month period begins at the time of the initial injection. Note that a bilateral injection will be counted as one injection only if it occurs on the same date of service. If the injection occurs on two separate dates of service, this will count as 2 injections.

➢ Fluoroscopic guidance is required during medial branch neuroablation.

➢ If chemical agents (for example phenol or alcohol) are planned for the ablation procedure, there must be documentation of the contraindication to thermal neuroablation (for example, spinal instrumentation, pacemaker, implantable cardiac defibrillator).

➢ Many member certificates limit neuroablation procedures to one service per calendar year. If a limit is not specified in the member’s certificate of coverage, neuroablation done at the same level on the same side can be repeated after 6 months if there is documentation of at least a 50% reduction in pain sustained over at least 6 months. Repeat diagnostic facet/MBB injections for repeat neuroablation are considered not medically necessary.

**Limitations of Coverage:**

A. Review contract and endorsements for exclusions and prior authorization or benefit requirements.

B. If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

C. If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

D. Destruction of the medial branch nerve by any method other than thermal neuroablation (for example, cryoablation or phenol), without documentation of the contraindication to thermal ablation, is considered experimental, investigational, unproven.
E. Neuroablation is considered investigative in any of the following situations as there is insufficient peer-reviewed scientific literature supporting neuroablation in these situations:

1. When fluoroscopic guidance is not used during the procedure;
2. For any nerve other than the medial branch nerve
3. When there is no diagnostic block to identify the appropriate level and side to be treated.
4. Pulsed Radiofrequency (also known as: Cold Radiofrequency, cold ablation, PRF, PRFA) is used.

F. Neuroablation is considered not medically necessary when more than one neuroablation procedure on one side of a particular level of the spine is performed less than 6 months after an earlier neuroablation procedure.

G. Lumbar and sacral medial and/or lateral branch nerve blocks for diagnosing sacroiliac joint pain are not the standard of care and are therefore not medically necessary.

H. Lumbar and sacral medial branch neuroablation for treating sacroiliac joint pain is not the standard of care and are therefore not medically necessary.

I. Sacroiliac ablation, sacroiliac fusion, and diagnostic sacroiliac joint injections in preparation for an ablation or fusion for management of back/ buttocks pain are considered experimental, investigational, unproven as there is insufficient peer-reviewed medical literature documenting the effectiveness of these procedures.

J. Neuroablation (facet neurotomy) of the thoracic spine is considered experimental, investigational, unproven

K. Neuroablation (facet neurotomy) for treatment of cervicogenic headache is considered experimental, investigational, unproven

**Documentation Required:**

- Procedure reports for the diagnostic injection(s)
- Documentation of the results of the diagnostic injection(s), which may include a patient diary or office telephone records

**Rationale:**

Neuroablation is not indicated without appropriate diagnostic injection(s). Because of the high incidence of false-positive responses after a single diagnostic injection, controlled comparative blocks with short acting and long acting local anesthesia are recommended
to establish the facet joint/medial branch nerve as the source of the symptoms. The diagnostic injections establish the medical necessity of the neuroablation procedure.

There are two types of radiofrequency ablation (RFA): continuous (non-pulsed, thermal, CRFA) and pulsed (cold ablation, cold radiofrequency, PRF, PRFA). CRFA involves the percutaneous placement of a needle or electrode that destroys the nerves around the facet joint. Once the probe is placed, nerves are then targeted (typically, for 40 to 90 seconds at temperatures of 60 to 90°C). PRFA has been introduced as a nonablative alternative to RF for a wide variety of painful conditions. PRFA delivers short bursts of radiofrequency current and allows the tissue to cool between bursts. This technique is expected to reduce the risk of destruction of neighboring tissue. It does not destroy targeted nerves. To date, there is insufficient evidence in the published, peer-reviewed scientific literature of randomized controlled trials addressing the efficacy, superiority over other treatments, or long term outcomes of Pulsed (cold) radiofrequency ablation.

Other techniques for destruction of the nerve have been used, but have not been shown to be an improvement or provide an increased duration of action over standard thermal ablation techniques. Neuroablation has been suggested as a management technique for pain from other nerves throughout the body, but at this time, there is insufficient evidence to support the effectiveness of the procedure for any other nerves.

Neuroablation is frequently effective for extended periods of time. The necessity of a repeat neuroablation procedure is dependent on the effectiveness of the previous procedure. If the neuroablation procedure was effective for less than 6 months, it is unlikely that a repeat procedure will provide any additional benefit. The duration of action of a neuroablation procedure, as reported in the literature, is inconsistent and varies widely. Currently, there are limited controlled clinical trials that have evaluated the expected duration of action. A 2000 study by Dreyfuss documented 90% relief at one year for the majority of individuals in the study. An article by Schofferman found a ten to eleven month average duration of action from the previous neuroablation procedure.

References:


Approved by the Medical Director