Radiofrequency Facet Denervation
AHM

Clinical Indications

- Nonpulsed radiofrequency facet denervation (also known as facet neurotomy, facet rhizotomy, or articular rhizolysis) is considered medically necessary for treatment of members with intractable cervical or back pain with or without sciatica in the outpatient setting when ALL of the following are met
  - Member has experienced severe pain limiting activities of daily living for at least 6 months
  - Member has had no prior spinal fusion surgery
  - Neuroradiologic studies are negative or fail to confirm disc herniation
  - Member has no significant narrowing of the vertebral canal or spinal instability requiring surgery
  - Member has tried and failed conservative treatments such as bed rest, back supports, physiotherapy, correction of postural abnormality, as well as pharmacotherapies (e.g., anti-inflammatory agents, analgesics and muscle relaxants)
  - Trial of facet joint injections has been successful in relieving the pain
    - Only 1 treatment procedure per level per side is considered medically necessary in a 6-month period

- Current role remains uncertain. Based on review of existing evidence, there are currently no clinical indications for this technology. See Inappropriate Uses for more detailed analysis of the evidence base. Nonpulsed radiofrequency facet denervation is investigational for all other indications

Indications considered Not Medically Necessary

- Any of the following are considered investigational
  - Facet chemodenervation/chemical facet neurolysis
  - Facet joint allograft implants (NuFix facet fusion, TruFuse facet fusion)
  - Facet joint implantation (Total Posterior-element System (TOPS) (Premia Spine), Total Facet Arthroplasty System (TFAS) (Archus Orthopedics), ACADIA Facet Replacement System (Facet Solutions/Globus Medical)
  - Laser facet denervation
  - Radiofrequency denervation for sacroiliac joint pain
  - Radiofrequency lesioning of dorsal root ganglia for back pain
  - Radiofrequency lesioning of terminal (peripheral) nerve endings for back pain
  - Radiofrequency/pulsed radiofrequency ablation of trigger point pain
Evidence Summary

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• Background
  • Facet joints of the spine have joint capsules that are supplied by a branch of the posterior ramus of the spinal nerve. Percutaneous radiofrequency facet denervation, also known as radiofrequency facet joint rhizotomy or facet neurotomy, involves selective denervation using radiofrequency under fluoroscopic guidance. As a method of neurolysis, radiofrequency facet denervation has been shown to be a very safe procedure and can offer relief for many patients with mechanical LBP in whom organic pathology, most commonly a herniated lumbar disc, has been eliminated. According to the literature, it offers advantages over conventional neurolytic agents (e.g., phenol, alcohol, and hypertonic saline) because of its long lasting effects, the relative lack of discomfort, and its completely local action without any random diffusion of the neurolytic agent.
  • Because there are no reliable clinical signs that confirm the diagnosis, successful relief of pain by injections of an anesthetic agent into the joints are necessary before proceeding with radiofrequency facet denervation. Results from many studies have shown that radiofrequency facet denervation results in significant (excellent or good) pain relief, reduced use of pain medication, increased return-to-work, and is associated with few complications. Success rate, however, depends on a careful selection of patients.
  • The use of chemical facet injections such as alcohol, phenol and hypertonic saline has been proposed as an option for lumbar facet pain. However, there is a lack of published data to support the safety and effectiveness of this technique. There is a lack of published evidence of laser facet denervation for lumbar facet pain.

References

• Murtagh J, Foerster V. Radiofrequency neurotomy for lumber pain. Issues in Emerging Health Technologies Issue 83. Ottawa, ON: Canadian Agency for Drugs and Technologies in Health (CADTH); 2006.


• Lee JS, Yoon KB, Kim IK, Yoon DM. Pulsed radiofrequency treatment of pain relieving point in a soft tissue.

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