Clinical Policy Title: Invasive treatment for cervicogenic headache and occipital neuralgia

Clinical Policy Number: 09.02.02

Effective Date: June 1, 2014
Initial Review Date: February 19, 2014
Most Recent Review Date: February 15, 2017
Next Review Date: February 2018

Related policies:
- CP# 03.03.05 Spine pain — trigger point injections
- CP# 00.02.02 Botulinum toxin products
- CP# 03.02.02 Radiofrequency ablation treatment for spine pain
- CP# 03.03.06 Biofeedback for chronic pain

ABOUT THIS POLICY: AmeriHealth Caritas Pennsylvania has developed clinical policies to assist with making coverage determinations. AmeriHealth Caritas Pennsylvania’s clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of “medically necessary,” and the specific facts of the particular situation are considered by AmeriHealth Caritas Pennsylvania when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. AmeriHealth Caritas Pennsylvania’s clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. AmeriHealth Caritas Pennsylvania’s clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, AmeriHealth Caritas Pennsylvania will update its clinical policies as necessary. AmeriHealth Caritas Pennsylvania’s clinical policies are not guarantees of payment.

Coverage policy

A. AmeriHealth Caritas Pennsylvania considers the use of injection of local anesthetics and/or steroids, used as occipital nerve blocks, for treatment of cervicogenic headache (CH) or occipital neuralgia (ON) to be investigational and, therefore, not medically necessary. See also Clinical Policy 03.02.01 Spine pain (non-surgical) for the use of facet/zygapophysial joint or medial branch nerve block injections.

B. AmeriHealth Caritas Pennsylvania considers the use of Botulinum toxin Type A for treatment of CH or ON to be investigational and, therefore, not medically necessary. See also Clinical Policy 00.02.02 Botulinum toxin products.
C. AmeriHealth Caritas Pennsylvania considers the use of ablative treatments for CH or ON to be investigational and, therefore, not medically necessary. See also Clinical Policy 03.02.02 Radiofrequency ablation treatment for spine pain.

D. AmeriHealth Caritas Pennsylvania considers the use of neurosurgical treatments for CH or ON to be investigational and, therefore, not medically necessary.

E. AmeriHealth Caritas Pennsylvania considers the use of peripheral nerve stimulation for treatment of CH or ON to be investigational and, therefore, not medically necessary.

For Medicare members only:

AmeriHealth Caritas Pennsylvania considers the use of percutaneous insertion of a peripheral nerve stimulation electrode, in the direct vicinity of the stimulated nerve (e.g., occipital nerve), for treatment of CH or ON to be clinically proven, as the effectiveness of its use has been established in peer-reviewed professional literature when all of the following criteria are met:

- Documented chronic and severe pain for at least three months.
- Documented failure of less invasive treatment modalities and medications.
- Lack of surgical contraindications including infections and medical risks.
- Appropriate proper patient education, discussion, and disclosure of risks and benefits.
- No active substance abuse issues.
- Formal psychological screening by a mental health professional.
- Successful stimulation trial with $\geq 50$ percent reduction in pain intensity, before permanent implantation.

AmeriHealth Caritas Pennsylvania considers all other types of peripheral nerve stimulation for treatment of CH or ON to be investigational and, therefore, not medically necessary.

Limitations:

For certain other clinical uses, the above treatments may be considered clinically proven as the effectiveness of these uses has been established in peer-reviewed professional literature. These clinically proven uses are identified in the following policies:

- CP# 03.02.01 Spine pain (nonsurgical).
- CP# 00.02.02 Botulinum toxin products.
- CP# 03.02.02 Radiofrequency ablation treatment for spine pain.
- This policy excludes diagnoses of primary headache types, including but not limited to migraine with or without aura and chronic tension-type headaches (TTH). (See pages 3 – 4 of this policy for diagnostic criteria.)

Alternative covered services:
- Pain management program.
- Physical therapy or occupational therapy.
- Prescription drug therapy as appropriate.

To make the best health decision for the patient’s individual needs, the patient should consult his or her physician.

**Background**

Neck pain and tenderness are common symptoms of many headache disorders. CH and ON are specific headache types, believed to be caused by pathology of the cervical vertebrae or the occipital nerves. The most common source of CH is degenerative changes involving the upper cervical facet joints. The prevalence of CH is estimated to be between 0.5 and 4 percent, but it may be as high as 20 percent of patients presenting with severe chronic headaches, and is more common in women (Yadla, 2010). No data is available regarding the prevalence or incidence of ON (Vanelderen, 2010).

Diagnosis of CH and ON requires differentiating these headache disorders from other types, including more common primary headache disorders, such as migraine with or without aura and chronic TTH. In addition, ON must be distinguished from occipital referral of pain from the atlantoaxial or upper zygapophyseal joints, or from tender trigger points in neck muscles or their insertions (International Headache Society [IHS], 2014).

Diagnosis may involve the use of clinical criteria, diagnostic imaging and fluoroscopically-guided, controlled, diagnostic nerve blocks. The IHS lists diagnostic criteria for CH and ON, as well as primary headache disorders to assist in the differential diagnosis (Tables 1 and 2). The Cervicogenic Headache International Study Group (CHISG) also lists diagnostic criteria for CH, with notable variations between the two organizations (IHS, 2014; Sjaastad, 2000). For example, the CHISG criteria for CH include unilateral head pain, while the IHS criteria note referred pain from a source in the neck, not constrained by unilaterality. Such inconsistencies highlight the difficulty in differentiating various types of headaches, and estimating their prevalence in the general population using available criteria.

**Table 1: IHS diagnostic criteria for cervicogenic headache and occipital neuralgia**

<table>
<thead>
<tr>
<th>Cervicogenic Headache (CH)</th>
<th>Occipital Neuralgia (ON)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain referred from a source in the neck and perceived in one or more regions of the head and/or face</td>
<td>Paroxysmal, stabbing pain, with or without persistent aching between paroxysms, in the distribution of the greater, lesser and/or third occipital nerves.</td>
</tr>
<tr>
<td>Clinical, laboratory and/or imaging evidence of a disorder or lesion within the cervical spine or soft tissues of the neck, known to be or generally accepted as a valid cause of headache.</td>
<td>Tenderness over the affected nerve.</td>
</tr>
<tr>
<td>Evidence that the pain can be attributed to the neck disorder or lesion, based on either demonstration of clinical signs that</td>
<td>Pain eased temporarily by local anesthetic block of the nerve.</td>
</tr>
</tbody>
</table>
Cervicogenic Headache (CH) | Occipital Neuralgia (ON)
--- | ---
Implicate a source of pain in the neck, or abolition of headache following diagnostic blockade of a cervical structure, or its nerve supply using placebo or other adequate controls.
Pain resolves within three months after successful treatment of the causative disorder or lesion.

### Table 2: IHS diagnostic criteria for common primary headache disorders

<table>
<thead>
<tr>
<th>Migraine without aura</th>
<th>Migraine with aura</th>
<th>Chronic tension type headache (TTH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. At least five attacks fulfilling criteria B — D.</td>
<td>A. At least two attacks fulfilling criteria B — D.</td>
<td>A. Headache occurring on ≥ 15 days per month on average for &gt; 3 months (≥ 180 days per year) and fulfilling criteria B — D.</td>
</tr>
<tr>
<td>B. Headache attacks lasting four to 72 hours (untreated or unsuccessfully treated).</td>
<td>B. Aura consisting of at least one of the following, but no motor weakness:</td>
<td>B. Headache lasting hours; may be continuous.</td>
</tr>
<tr>
<td>C. Headache having at least two of the following characteristics:</td>
<td>• Fully reversible visual symptoms including positive features (e.g., flickering lights, spots, or lines) and/or negative features (i.e., loss of vision).</td>
<td>C. Headache having at least two of the following characteristics:</td>
</tr>
<tr>
<td>• Unilateral location.</td>
<td>• Fully reversible sensory symptoms including positive features (i.e., pins and needles) and/or negative features (i.e., numbness).</td>
<td>• Bilateral location.</td>
</tr>
<tr>
<td>• Pulsating quality.</td>
<td>• Fully reversible dysphasic speech disturbance.</td>
<td>• Pressing/tightening (non-pulsating) quality.</td>
</tr>
<tr>
<td>• Moderate or severe pain intensity.</td>
<td>C. At least two of the following:</td>
<td>• Mild or moderate intensity.</td>
</tr>
<tr>
<td>• Aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs).</td>
<td>• Homonymous visual symptoms and/or unilateral sensory symptoms.</td>
<td>• Not aggravated by routine physical activity such as walking or climbing stairs.</td>
</tr>
<tr>
<td>D. During headache at least one of the following:</td>
<td>• At least one aura symptom developing gradually over ≥ 5 minutes and/or different aura symptoms occurring in succession over ≥ 5 minutes.</td>
<td>D. Both of the following:</td>
</tr>
<tr>
<td>• Nausea and/or vomiting.</td>
<td>• Each symptom lasting ≥ 5 and ≤ 60 minutes.</td>
<td>• No more than one of photophobia, phonophobia, or mild nausea.</td>
</tr>
<tr>
<td>• Photophobia and phonophobia.</td>
<td>D. Headache fulfilling criteria B — D for migraine without aura begins during the aura, or follows aura within 60 minutes.</td>
<td>• Neither moderate/severe nausea nor vomiting.</td>
</tr>
<tr>
<td>E. Not attributed to another disorder.</td>
<td>E. Not attributed to another disorder.</td>
<td>E. Not attributed to another disorder.</td>
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Numerous treatment options for CH and ON have been proposed. Conservative treatment options include pharmacotherapy with oral analgesics, anti-inflammatory medications, tricyclic antidepressants, and anticonvulsant medications, used alone or in combination with other treatment modalities. Other interventions comprise the use of a cervical collar during the acute phase, physical therapy, postural training, relaxation exercises, transcutaneous electrical nerve stimulation (TENS), and manual therapy, such as spinal manipulation, and spinal mobilization. More invasive treatments include local injection therapy, ablation, neurosurgery, and peripheral nerve stimulation. Evidence-based guidelines generally recommend conservative options as first-line treatment for CH and ON, reserving more invasive options for those with chronic, severe pain that does not respond to conservative treatment (AANS, 2013).
Local injection therapy delivers local anesthetics, steroids or other agents into the region of the affected nerve(s), thereby reducing pain and inflammation. Botulinum Toxin Type A is a neurotoxin that blocks nerve impulses and has been proposed as treatment for CH and ON. The U.S. Food and Drug Administration (FDA) approved Botulinum Toxin Type A (onabotulinumtoxinA, marketed as Botox®, Allergan Inc.) for the treatment of severe dystonia, severe primary axillary hyperhidrosis, strabismus, blepharospasm neurogenic detrusor over activity, chronic migraine, and upper limb spasticity; therefore, treatment for CH or ON is an off-label use (FDA, 2014).

Neuroablative techniques are used to selectively and temporarily interrupt aberrant signal pathways to relieve chronic pain. For treatment of ON and CH, ablation may be performed in an attempt to denervate the greater or lesser occipital nerve; upper cervical nerve (e.g., second cervical nerve); or the supraorbital, supratrochlear, or sphenopalatine ganglion. There are numerous FDA-approved devices used in performing radiofrequency (RF) ablation, but none has been approved to treat CH or ON. Ablative techniques include, but are not limited to:

- Pulsed RF ablation.
- RF ablation.
- RF neurotomy.
- RF denervation.
- Neurolysis.
- Cryodenervation.
- Nerve root rhizotomy.

Neurosurgery is performed to relieve impingement of the nerve root(s) and thereby eliminate symptoms caused by compression and injury to the cervical nerves. A number of surgical procedures have been studied for the treatment of ON and CH. They include, but are not limited to:

- Dorsal nerve root section.
- Occipital neurectomy.
- Partial posterior rhizotomy.
- Cervical spine disc excision with fusion.
- Surgical nerve release.

Peripheral nerve stimulation entails the placement of electrodes near or on a selected peripheral nerve, as a form of neuromodulation therapy. Peripheral nerve stimulation is delivered transcutaneously, percutaneously and by using an implantable device. Occipital nerve stimulation (ONS) (also called peripheral nerve stimulation of the occipital nerve) delivers a small electrical charge to the occipital nerve in an attempt to prevent migraines and other headaches in patients who have not responded to medications. Several devices are approved for electrically stimulating peripheral nerves to relieve severe intractable pain, but currently no implantable pulse generator, RF device or leads are FDA-approved for peripheral ONS to treat ON or CH.
Searches

AmeriHealth Caritas Pennsylvania searched PubMed and the databases of:

- UK National Health Services Centre for Reviews and Dissemination.
- Agency for Healthcare Research and Quality’s National Guideline Clearinghouse and other evidence-based practice centers.
- The Centers for Medicare & Medicaid Services (CMS).

We conducted searches on December 19, 2016. Search terms were "post-traumatic headache" (MeSH), “cervicogenic headache,” “chronic neck pain” and “occipital neuralgia,” limited to human studies published in English.

We included:

- **Systematic reviews**, which pool results from multiple studies to achieve larger sample sizes and greater precision of effect estimation than in smaller primary studies. Systematic reviews use predetermined transparent methods to minimize bias, effectively treating the review as a scientific endeavor, and are thus rated highest in evidence-grading hierarchies.
- **Guidelines based on systematic reviews.**
- **Economic analyses**, such as cost-effectiveness, and benefit or utility studies (but not simple cost studies), reporting both costs and outcomes — sometimes referred to as efficiency studies — which also rank near the top of evidence hierarchies.

Findings

Six systematic reviews and no economic analyses were identified for this policy. The available evidence is insufficient to conclude that local injection therapy, ablation, surgery, or peripheral nerve stimulation are effective treatments for ON or CH. The limited data suggest that some patients may obtain a short-term benefit from some of these treatment methods, but a substantial proportion of patients experienced recurrences. Studies included patients with pain refractory to conventional treatment and frequently uncertain etiologies based on criteria from diagnostic nerve blockades, which have not been standardized or sufficiently validated in the context of ON or CH. Where reported, types of interventions and follow-up periods varied, subjective rather than objective outcome measures were used, and the long-term efficacy and safety remain unknown. Few randomized controlled trials (RCTs) were available, and most recommendations from professional societies rely on the results of significantly flawed observational studies.

Local injection therapy:

Three systematic reviews found moderately strong evidence from RCTs of no benefit of anesthetic nerve block for treatment of CH (Peloso, 2013; Gross, 2013; Falco, 2012). One systematic review found fair evidence of short-term benefit from one small RCT (Hayes, 2011). The AHS Special Interest Section for
Peripheral Nerve Blocks and Other Interventional Procedures also cited the paucity of evidence for treatment of most headache disorders and cranial neuralgias, excluding cluster headaches (Blumenfeld, 2013).

The American Association of Neurological Surgeons (AANS) state on their website, “Percutaneous nerve blocks not only may be helpful in diagnosing occipital neuralgia, but they can help alleviate pain, as well. Nerve blocks involve either the occipital nerves or in some patients, the C2 and/or C3 ganglion nerves. It is important to keep in mind that the use of steroids in nerve block treatment may cause serious adverse effects” (AANS, 2013). The American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine (ASA/ASRA) strongly recommend using medial branch blocks for facet-mediated spine pain, but are against using peripheral somatic nerve blocks for long-term treatment of chronic pain, based on observational studies suggesting short-term relief (ASA/ASRA, 2010).

**Botulinum Toxin Type A:**

Two recent systematic reviews found strong evidence of no benefit (vs. control) or no difference (vs. another treatment) for its use as treatment for CH (Peloso, 2013; Hayes 2011). The American College of Occupational and Environmental Medicine (ACOEM) recommends against routinely providing botulinum injections for tension or CH, based on limited evidence that it may cause harm, and the costs may exceed the benefits (ACOEM, 2011).

**Ablative techniques:**

Two systematic reviews identified poor-quality and conflicting evidence of effectiveness of cervical RF ablation for CH (Falco, 2012; Hayes, 2011). The ACOEM recommends against routinely providing RF neurotomy to eligible patients, based on intermediate evidence that it is ineffective, or that potential harms and costs outweigh benefits (ACOEM, 2011). ASA/ASRA agreed strongly that conventional RF ablation of the medial branch nerves to the facet joint should be performed for neck pain, based on the results of one RCT (ASA/ASRA, 2010).

**Neurosurgery:**

One systematic review identified limited evidence from two prospective, uncontrolled series that suggested temporary relief from discectomy with interbody fusion; while studies included subjects with pain refractory to conventional treatment, no specific characteristics could be identified that were predictive of a positive outcome or sustained response to treatment (Hayes, 2011). The long-term efficacy of surgical procedures for ON or CH has not been established in well-designed clinical trials. Several small retrospective case series with short-term follow-up have reported positive effects using other surgical treatments, including but not limited to:

- C2 nerve root decompression.
- C2 dorsal root ganglionectomy.
• Decompression followed by ganglionectomy.
• C2 and/or C3 ganglionectomies.
• Neurolysis of the greater occipital nerve.
• Intradural rhizotomies with varying levels of relief and duration.

Peripheral nerve stimulation:

Two recent systematic reviews found insufficient evidence of effectiveness of various electrostimulation techniques, including occipital nerve stimulators (ONSs), for treatment of ON or CH (Kroelig, 2013; Jasper, 2008). Well-designed RCTs comparing neurostimulation to established treatment options, or a sham procedure on larger populations with longer follow-up, are needed to define the benefits of neurostimulation and electrical stimulation for treating ON or CH. The ASA/ASRA identified no studies related specifically to ON or CH and, therefore, made no specific recommendations for peripheral nerve stimulation in the context of CH or ON. However, they made the following general recommendations for (ASA/ASRA, 2010):

• Subcutaneous peripheral nerve stimulation in the multimodal treatment of patients with painful peripheral nerve injuries who have not responded to other therapies, based on several observational studies.
• TENS as part of a multimodal approach to pain management for patients with chronic back pain, based on a meta-analysis of RCTs.
• TENS for other pain conditions (e.g., neck and phantom limb pain) based on observational studies.

Policy updates:

We identified one new systematic review and one new evidence-based guideline for this policy. The systematic review investigated the clinical utility of RF neurotomy and PRF ablation for the management of CH and found insufficient evidence to support either procedure (Nagar, 2015). The guideline by the Congress of Neurological Surgeons recommended ONS as a treatment option for patients with medically refractory ON based on nine small case series (Sweet, 2015). However, they also acknowledged evidence of long-term effectiveness, optimal region for lead placement and optimal lead type were lacking, and RCTs and other well-designed studies demonstrating the effectiveness of ONS have been conducted in other populations.

The new information would not change the original conclusions of this policy. Therefore, no changes to the policy are warranted.

Summary of clinical evidence:

<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
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<tbody>
<tr>
<td>Local injection therapies</td>
<td>Key points:</td>
</tr>
<tr>
<td>Citation</td>
<td>Content, Methods, Recommendations</td>
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<tr>
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</tbody>
</table>
| Medical injections for neck pain | - Identified two trials (n = 58) of Botulinum toxin Type A (BTA) for CH; found strong evidence of no benefit (vs. control) or no difference (vs. another treatment).  
- Identified one trial (n = 120) of nerve block injections Bupivacaine + varying combinations of steroid and sarapin for chronic cervical facet joint pain; found moderate quality of evidence of no benefit (vs. control) or no difference (vs. another treatment). |
| Gross (2013) Physician-delivered injection therapies for mechanical neck disorders | Key points:  
- Identified one trial of chronic mechanical neck disorder with CH, two trials of CH; high risk of bias, and duration of symptoms not reported.  
- Low-quality evidence of effectiveness of greater occipital nerve blockade with prilocaine vs. saline.  
- Low-quality evidence of short-term effectiveness of occipital nerve blockade with lidocaine vs. saline.  
- Anesthetic nerve block not recommended for CH. |
| Falco (2012) Cervical facet joint interventions | Key points:  
- Identified one significantly flawed, randomized, double-blind, active-controlled trial and one prospective trial for cervical medial branch blocks for CH that were excluded from final analysis, due to significant methodological flaws. |
| Hayes (2011) Local injection therapy and neurosurgery for CH and ON | Key points:  
- Identified seven prospective trials.  
- Overall quality: fair.  
- Botulinum Toxin Type A: two RCTs provided conflicting evidence of pain reduction.  
- Local anesthetic: one RCT and four prospective uncontrolled studies reported temporary effect, with between 50% and 95% of patients reporting short-term pain relief, but pain recurred in a substantial portion of patients.  
- Few complications associated with local injection therapies. Bleeding and infection at the injection site are uncommon.  
- Insufficient evidence to establish definitive patient selection criteria for LIT. |
| Nagar (2015) RF and pulsed RF for CH | Key points:  
- Systematic review of five non-RCTs and four RCTs.  
- Overall quality: low to moderate. Limited by inconsistencies between RCTs, flaws in trial design, and gaps in the chain of evidence.  
- There is insufficient evidence to support RF or pulse RF ablation. |
| Falco (2012) Cervical facet joint interventions | Key points:  
- Identified one randomized sham-controlled, double-blind trial (n = 24) and five uncontrolled studies of RF neurotomy.  
- Overall quality: low (observational studies) to moderate (RCT). Observational studies had significant variation in diagnostic criteria, techniques, outcomes, and patient populations.  
- RCT results: found fair evidence of effectiveness of pain reduction lasting from months, to more than one year, for cervical RF neurotomy for CH.  
- Observational studies found generally positive results, but with significant variation in diagnostic criteria, techniques, outcomes, and patient populations.  
- Reported complications: worsening of the usual pain, burning or dysesthesia, decreased sensation and allodynia in the skin in the region of the facets denervated, transient leg pain, persistent leg weakness, and inadvertent lesioning of the spinal nerve or ventral ramus resulting in motor deficits, sensory loss, and deafferentation pain. |
| Hayes (2011) | Key points:  
- |
<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
</table>
| Local injection therapy and neurosurgery for CH and ON | • Identified two prospective studies.  
• One uncontrolled prospective study reported pain reduction, one RCT suggested that RF nerve ablation provided no benefits over those of anesthetic injection. |
| Occipital nerve stimulation | **Key points:**  
• Identified 20 small trials (n = 1,239 with neck pain) containing 38 comparisons of various electrotherapy modalities; variable study quality, heterogeneous treatment subtypes and conflicting results.  
• Limited evidence of no benefit for diadynamic current for reduction of trigger point tenderness in chronic mechanical neck disorders or CH.  
• Unclear or conflicting evidence for direct current for acute or chronic occipital headache.  
• Conclusions: No definite statements on the efficacy and clinical usefulness of electrotherapy modalities for neck pain can be made. Since the evidence is of low or very low quality, there is uncertainty about effect estimates in pain and other outcomes. |
| Kroeling (2013; update of 2005 Cochrane review) | **Key points:**  
• Identified 10 observational studies, including four, and a number of case series, case reports for implanted ONSs; no RCTs.  
• Limited evidence of effectiveness of ONS: reportedly successful for 70 – 100% of patients. Rapid and significant reduction of pain in patients with occipital headaches and transformed migraine, but less dramatic for patients with cluster headaches. No long-term adverse events occurred. Several short-term incidents occurred including infection, lead displacement and battery depletion. |
| Jasper (2008) | **Key points:**  
• Identified two prospective uncontrolled series.  
• Overall quality: low.  
• Discectomy with interbody fusion: procedure was associated with temporary pain relief: mean duration of improvement was 22.7 months and 14.8 months (range, one month to 58 months) in the two studies.  
• Surgical risks: bleeding and infection, adverse effects associated with anesthesia, accidental damage to associated structures, and scarring.  
• Insufficient evidence to establish definitive patient selection criteria for neurosurgery. Precautions to be taken are similar to those appropriate with these treatments for other diagnoses, including avoiding treatment of patients with serious systemic disease, hematologic disorders or local infection at the site of treatment. |

**References**

**Professional society guidelines/other:**


Peer-reviewed references:


IHS Classification ICHD-II. Cervicogenic headache [M99] | 11.2.1|G44.841. International Headache Society website.


**CMS National Coverage Determinations (NCDs):**


**Local Coverage Determinations (LCDs):**


L35450 Spinal Cord Stimulation (Dorsal Column Stimulation). CMS website. 


**Commonly submitted codes**

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>64405</td>
<td>Injection, anesthetic agent; greater occipital nerve</td>
<td></td>
</tr>
<tr>
<td>64450</td>
<td>Injection, anesthetic agent, lesser occipital nerve</td>
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<tr>
<td>64533</td>
<td>Percutaneous implantation of neurostimulator electrode array; cranial nerve</td>
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<tr>
<td>64555</td>
<td>Percutaneous implantation of neurostimulator electrode array; peripheral nerve</td>
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<tr>
<td>64615</td>
<td>Chemodenervation of muscle(s); muscle(s) inervated by facial, trigeminal, cervical spinal and accessory nerves, bilateral (eg, for chronic migraine)</td>
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<tr>
<td>64633</td>
<td>Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, single facet joint</td>
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<thead>
<tr>
<th>ICD-10 Code</th>
<th>Description</th>
<th>Comments</th>
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<tbody>
<tr>
<td>M53.81</td>
<td>Other specified dorsopathies, occipito-Atlanto-axial region</td>
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<tr>
<td>M53.82</td>
<td>Other specified dorsopathies, cervical region</td>
<td></td>
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<tr>
<td>Code</td>
<td>Description</td>
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<td>M53.83</td>
<td>Other specified dorsopathies, cervicothoracic region</td>
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<td>M54.2</td>
<td>Cervicalgia</td>
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<tr>
<td>M54.81</td>
<td>Occipital neuralgia</td>
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<tr>
<th>HCPCS Level II</th>
<th>Description</th>
<th>Comments</th>
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<tbody>
<tr>
<td>J0585</td>
<td>Injection, Onabotulinumtoxina, 1 Unit (for example (Botox® ))</td>
<td></td>
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<tr>
<td>J0587</td>
<td>Botulinum toxin type B, per 100 units</td>
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