Medical Policy
Occipital Nerve Stimulation

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Policy Number: 237
BCBSA Reference Number: 7.01.125
NCD/LCD: NA

Related Policies
• Percutaneous Electrical Nerve Stimulation and Percutaneous Neuromodulation Therapy, #172
• Spinal Cord and Dorsal Root Ganglion Stimulation, #472

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Occipital nerve stimulation is considered INVESTIGATIONAL for all indications.

Prior Authorization Information
Inpatient
• For services described in this policy, precertification/preauthorization IS REQUIRED for all products if the procedure is performed inpatient.

Outpatient
• For services described in this policy, see below for products where prior authorization might be required if the procedure is performed outpatient.

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<tr>
<th>Commercial Managed Care (HMO and POS)</th>
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CPT Codes / HCPCS Codes / ICD Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s
contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes
There is no specific CPT code for this service.

ICD Diagnosis Codes
Investigational for all diagnoses.

Description

Headache
There are 4 types of headache: vascular, muscle contraction (tension), traction, and inflammatory. Primary (not the result of another condition) chronic headache is defined as headache occurring more than 15 days of the month for at least 3 consecutive months. An estimated 45 million Americans experience chronic headaches. For at least half of these people, the problem is severe and sometimes disabling. Herein, we only discuss types of vascular headache, including migraine, hemicrania continua, and cluster.

Migraine
Migraine is the most common type of vascular headache. Migraine headaches are usually characterized by severe pain on one or both sides of the head, an upset stomach, and, at times, disturbed vision. One-year prevalence of migraine ranges from 6% to 15% in adult men and from 14% to 35% in adult women. Migraine headaches may last a day or more and can strike as often as several times a week or as rarely as once every few years.

Treatment
Drug therapy for migraine is often combined with biofeedback and relaxation training. Sumatriptan and other triptans are commonly used for relief of symptoms. Drugs used to prevent migraine include amitriptyline, propranolol and other β-blockers, topiramate and other antiepileptic drugs, and verapamil.

Hemicrania Continua
Hemicrania continua causes moderate and occasionally severe pain on only one side of the head. At least one of the following symptoms must also occur: conjunctival injection and/or lacrimation, nasal congestion and/or rhinorrhea, or ptosis, and/or miosis. Headache occurs daily and is continuous with no pain-free periods. Hemicrania continua occurs mainly in women, and its true prevalence is not known.

Treatment
Indomethacin usually provides rapid relief of symptoms. Other nonsteroidal anti-inflammatory drugs, including ibuprofen, celecoxib, and naproxen, can provide some relief of symptoms. Amitriptyline and other tricyclic antidepressants are effective in some patients.

Cluster Headache
Cluster headache occurs in cyclical patterns or clusters of severe or very severe unilateral orbital or supraorbital and/or temporal pain. The headache is accompanied by at least one of the following autonomic symptoms: ptosis, conjunctival injection, lacrimation, rhinorrhea, and, less commonly, facial blushing, swelling, or sweating. Bouts of 1 headache every other day up to 8 attacks per day may last from weeks to months, usually followed by remission periods when the headache attacks stop completely. The pattern varies by person, but most people have 1 or 2 cluster periods a year. During remission, no headaches occur for months, and sometimes even years. The intense pain is caused by the dilation of blood vessels, which creates pressure on the trigeminal nerve. While this process is the
immediate cause of the pain, the etiology is not fully understood. It is more common in men than in
woman. One-year prevalence is estimated to be 0.1 to 1. in 1000.

**Treatment**
Management of cluster headache consists of abortive and preventive treatment. Abortive treatments
include subcutaneous injection of sumatriptan, topical anesthetics sprayed into the nasal cavity, and
strong coffee. Some patients respond to rapidly inhaled pure oxygen. A variety of other pharmacologic
and behavioral methods of aborting and preventing attacks have been reported with wide variation in
patient response.

**Peripheral Nerve Stimulators**
Implanted peripheral nerve stimulators have been used to treat refractory pain for many years but have
only recently been proposed to manage craniofacial pain. Occipital, supraorbital, and infraorbital
stimulation have been reported in the literature.

**Summary**
Occipital nerve stimulation delivers a small electrical charge to the occipital nerve intended to prevent
migraines and other headaches in patients who have not responded to medications. The device consists
of a subcutaneously implanted pulse generator (in the chest wall or abdomen) attached to extension
leads that are tunneled to join electrodes placed across one or both occipital nerves at the base of the
skull. Continuous or intermittent stimulation may be used.

For individuals who have migraine headaches refractory to preventive medical management who receive
occipital nerve stimulation, the evidence includes randomized controlled trials (RCTs), systematic reviews
of RCTs, and observational studies. Relevant outcomes are symptoms, functional outcomes, quality of
life, and treatment-related morbidity. Systematic reviews identified 5 sham-controlled randomized trials.
Findings from pooled analyses of these RCTs were mixed. For example, compared with placebo,
response rates to occipital nerve stimulation did not differ significantly but did reduce the number of days
with prolonged moderate-to-severe headache. Occipital nerve stimulation was also associated with a
substantial number of minor and serious adverse events. The evidence is insufficient to determine the
effects of the technology on health outcomes.

For individuals who have non-migraine headaches (eg, hemicrania continua, cluster headaches) who
receive occipital nerve stimulation, the evidence includes case series. Relevant outcomes are symptoms,
functional outcomes, quality of life, and treatment-related morbidity. Many of the case series had small
sample sizes; series with over 25 patients were available only for treatment of cluster headache. Although
the case series tended to find that a substantial number of patients improved after occipital nerve
stimulation, these studies lacked blinding and comparison groups. RCTs are needed to compare
outcomes between occipital nerve stimulation and comparators (eg, to control for a potential placebo
effect). The evidence is insufficient to determine the effects of the technology on health outcomes.

**Policy History**

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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References