Highmark Medical Policy Bulletin

Section:	Miscellaneous
Number:	Z-7
Topic:	Electrical Nerve Stimulation
Effective Date:	March 3, 2003
Issued Date:	November 1, 2003
Date Last Reviewed:	12/2002

General Policy Guidelines

Indications and Limitations of Coverage

Coverage of electrical nerve stimulation is *limited to* those stimulators and situations defined within this policy when used to alleviate *chronic intractable pain*, unless otherwise stated.

CENTRAL NERVOUS SYSTEM

Dorsal Column Stimulator (63650, 63655, 63685)

Dorsal column stimulation is considered experimental/investigational when used as a treatment for conditions other than chronic intractable pain. The medical efficacy for alternate use of this treatment has not been established.

Deep Brain Neurostimulation (61862)

Deep Brain Stimulation (DBS) is eligible to control tremors due to essential tremor (333.1) or Parkinson's Disease (332.0), when medication has failed. Payment will be allowed for DBS using a stimulator implanted on one side of the brain (unilaterally) or on both sides of the brain (bilaterally).

The DBS should be a last resort when all other treatments, including medications, have failed to control the tremors. Further, the patient should receive medical and neurophysiological monitoring before and after the implantation.

PERIPHERAL NERVOUS SYSTEM

Transcutaneous Electrical Nerve Stimulation (TENS)(64550)
Percutaneous Electrical Nerve Stimulation (PENS)(64555)

Transcutaneous Electrical Nerve Stimulation (TENS) is not an eligible service under the UCR and Fee Schedule programs except as identified in the benefits schedule.

When a covered benefit, both TENS and PENS are *reimbursed when used to assess* a patient's suitability for continued treatment with an electrical nerve stimulator.

Generally, a physician or physical therapist should be able to determine within a trial period of two months whether the patient is likely to derive a significant therapeutic benefit from the continued use of electrical stimulation. Once this is determined, the patient should use the TENS at home, or if PENS was used, a stimulator should be implanted. Consequently, continued treatments (64550), rather than assessment services, furnished by a physician in his office, by a physical therapist (applicable to TENS only) or outpatient clinic *should be denied*.

Claims for the TENS or PENS assessment services should be reported under code 95999 with payment equated to the level of reimbursement for an intermediate office visit.

Usually, the physician or physical therapist providing the TENS assessment service will provide the necessary equipment. If the patient rents the stimulator from a supplier during the trial period, payment may be made for the rental of the unit as well as the physician's or physical therapist's service, when a benefit. However, the combined payment may not exceed the amount which would have been payable to the physician or physical therapist alone for the total assessment service.

If the services continue for longer than two months, the claim should be evaluated to determine if the patient's condition is chronic, in which case the TENS would be covered as a prosthetic device.

Implanted Peripheral Nerve Stimulator (64575, 64590)

The implantation of a peripheral nerve stimulator is eligible when used to alleviate chronic intractable pain.

Implanted Autonomic Nerve Stimulator (64577)

This procedure is eligible only for the implantation of a phrenic nerve stimulator for treatment of patients with partial or complete respiratory insufficiency (518.5, 518.82). Implantation of an autonomic nerve stimulator other than phrenic is not eligible for payment. In addition, treatment for conditions other than partial or complete respiratory insufficiency is considered experimental/investigational. It is not eligible for reimbursement. The medical efficacy for alternate use of this treatment has not been established. A participating, preferred, or network provider can bill the member for the denied service.

See Medical Policy Bulletin O-9 for information on the phrenic nerve stimulator device.

Vagus Nerve Stimulator (61885, 61886, 64573)

The implantation of a vagus nerve stimulator for seizure control is eligible only when used as a last resort for patients with epilepsy with partial onset seizures (345.4-345.51). Eligibility is limited to those cases where the seizures cannot be controlled by any other method, i.e., surgery or medication.

Routine adjustments or maintenance of a nerve stimulator (95970-95975) following implantation, and performed during the normal postoperative period, are considered part of the global surgical service. No additional allowance should be made for this service unless the adjustments are performed after the normal postoperative period. Adjustments required because of complications are eligible.

Claims for the removal of an implanted stimulator should be reported under the appropriate code (63660, 63688, 64585, 64595, 64999). If a second stimulator is implanted (e.g., because of infection or malfunction), payment should be made only for the reimplantation under the appropriate implantation code. No additional allowance should be made for the removal of the first unit.

Use of electrical nerve stimulators and related services other than those listed above, or for conditions other than those listed above (e.g., multiple sclerosis, muscular dystrophy, or other motor function disorders), is considered experimental/investigational. It is not eligible for reimbursement. The medical efficacy for alternate use of electrical nerve stimulation has not been established. A participating, preferred, or network provider can bill the member for the denied service.

Nerve stimulators are not covered except under those groups that provide coverage for durable medical equipment (TENS stimulators, E0720 and E0730) and prosthetic devices (implanted stimulators).

NOTE:

See Medical Policy Bulletin S-131 for guidelines on sacral nerve stimulation.

See Medical Policy Bulletin Y-16 for guidelines on electrical stimulation for wound healing.

Description

CENTRAL NERVOUS SYSTEM

Dorsal Column Stimulator

Dorsal column stimulation involves the surgical implantation of neurostimulator electrodes within the dura mater (via laminectomy) or the percutaneous insertion of electrodes in the epidural space, often referred to as the PICES (Percutaneous Implantation of Spinal Column Electrical Stimulator) system.

Deep Brain Neurostimulation

Deep brain stimulation (DBS) involves the stereotactic implantation of electrodes in the deep brain (e.g., thalamus and periaqueductal gray matter).

Deep brain stimulation for the control of tremors consists of an electrode(s) implanted into the thalamus, and connected by lead wire(s) under the skin to a pulse generator(s) implanted in the chest. When activated, the device(s) sends a constant stream of tiny electrical pulses to the brain, blocking tremors. To turn the stimulator(s) on or off, the patient passes a handheld magnet over the pulse generator(s).

PERIPHERAL NERVOUS SYSTEM

Transcutaneous Electrical Nerve Stimulation (TENS)

This is a non-invasive technique where the stimulator is attached to the surface of the skin over the peripheral nerve to be stimulated.

Percutaneous Electrical Nerve Stimulation (PENS)

This procedure involves stimulation of the peripheral nerves by a needle electrode inserted through the skin.

Implanted Peripheral Nerve Stimulator

This procedure involves the implantation of electrodes around a selected peripheral nerve. The stimulating electrode is connected by an insulated lead to a receiver unit which is implanted under the skin at a depth not greater than 1/2 inch. Stimulation is induced by a generator which is connected to an antenna which is attached to the skin surface over the receiver unit. Sciatic and ulnar nerves are often the sites of such an implant.

Implanted Autonomic Nerve Stimulator

The phrenic nerve stimulator is a type of autonomic nerve stimulator which provides electrical stimulation of the patient's phrenic nerve to contract the diaphragm rhythmically and produce breathing in patients who have hypoventilation.

Vagus Nerve Stimulator

The implantation of a vagus nerve stimulator consists of a generator which is implanted under the collar bone and connected by wire to the vagus nerve in the neck, where it delivers electrical signals to the brain to control seizures. It includes an external programming system which is used by the physician to change stimulation settings. Patients can turn the stimulator on and off with a hand-held magnet by holding it over the stimulator.

NOTE:

This policy is designed to address medical guidelines that are appropriate for the majority of individuals with a particular disease, illness, or condition. Each person's unique clinical circumstances may warrant individual consideration, based on review of applicable medical records.

Procedure Codes

61862	61885	61886	63650	63655	63660
63685	63688	64550	64555	64573	64575
64577	64585	64590	64595	95970	95971
95972	95973	95974	95975		

Traditional (UCR/Fee Schedule) Guidelines

Refer to General Policy Guidelines

FEP Guidelines

TENS is considered eligible for coverage for treatment of acute postoperative pain and for treatment of severe and chronic pain. For chronic pain, TENS has an assessment period of one week. For acute postoperative pain, rental of the stimulator should be limited to seven days. Anything in excess of seven days should be given individual consideration.

Also refer to General Policy Guidelines

Comprehensive / Wraparound / PPO / Major Medical Guidelines

Refer to General Policy Guidelines

Managed Care (HMO/POS) Guidelines

Refer to General Policy Guidelines

Publications

PRN References

02/1997, TENS, coverage for
02/1997, PENS, coverage for
02/1998, Deep brain stimulation, coverage for
04/2002, Bilateral deep brain stimulation now covered
04/2003, Age restriction for vagus nerve stimulation removed

References

Long-term transcutaneous electrical nerve stimulation (TENS) use: impact on medication utilization and physical therapy costs, Clin J Pain, Vol. 14, Issue 1, 03/1998

Deep brain stimulation for movement disorders, Neurosurg Clin N Am, Vol. 9, Issue 2, 04/1998

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Vagus nerve stimulation therapy for partial-onset seizures, A randomized active-control trial, Neurology, Vol. 51, July 1998

Unilateral thalamic deep brain stimulation for refractory essential tremor and Parkinson's disease tremor, Neurology, Vol. 51, Issue 4, 10/1998

Percutaneous electrical nerve stimulation (PENS): a complementary therapy for the management of pain secondary to bony metastasis, Clin J Pain, Vol. 14, Issue 4, 12/1998

Vagus Nerve Stimulation, Epilepsia, Vol. 39, No. 7, 1998

Percutaneous Electrical Nerve Stimulation for Low Back Pain, A Randomized Crossover study, Journal of the American Medical Association, Vol. 281, No. 9, 03/1999

The effects of epimysial electrode location on phrenic nerve recruitment and the relation between tidal volume and interpulse interval, IEEE Trans Rehabil Eng, Vol. 7, Issue 2, 06/1999

Treatment of neuropathic pain in a patient with diabetic neuropathy using transcutaneous electrical nerve stimulation applied to the skin of the lumbar region, Physical Therapy, Vol. 79, Issue 8, 08/1999

Neuropsychological and quality of life outcome after thalamic stimulation for essential tremor, Neurology, Vol. 53, Issue 8, 11/1999

Percutaneous electrical nerve stimulation: an alternative to TENS in the management of sciatica, Pain, Vol. 83, Issue 2, 11/1999

Use of transcutaneous electrical nerve stimulation in a young child with pain from open perineal lesions, J Pain Symptom Manage, Vol. 18, Issue 5, 11/1999

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Glossary
