

EFFECTIVE DATE: 04|01|2017
POLICY LAST UPDATED: 01|20|2017

OVERVIEW

Peripheral subcutaneous field stimulation (PSFS; also called peripheral nerve field stimulation or target field stimulation) is a form of neuromodulation that is intended to treat chronic neuropathic pain.

MEDICAL CRITERIA

None

PRIOR AUTHORIZATION

Prior authorization is not required.

POLICY STATEMENT

Blue CHiP for Medicare and Commercial Products

Peripheral subcutaneous field stimulation, PSFS, is considered not medically necessary as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, Subscriber Agreement for the applicable Services Not Medically Necessary benefits/coverage

BACKGROUND

Chronic, noncancer pain is responsible for a high burden of illness. Common types of chronic pain are lumbar and cervical back pain, chronic headaches, and abdominal pain. All of these conditions can be challenging to treat. Medications are typically the first-line treatment for chronic pain, and several classes of medications are available. These include analgesics (opioid and nonopioid), antidepressants, anticonvulsants, and muscle relaxants. There also are a variety of nonpharmacologic treatments, including physical therapy, exercise, cognitive-behavioral interventions, acupuncture, chiropractic, and massage.

Neuromodulation is another form of nonpharmacologic therapy that is usually targeted toward patients with chronic pain that is refractory to other modalities. Some forms of neuromodulation, such as transcutaneous electrical nerve stimulation and SCS, are established methods of chronic pain treatment. Peripheral nerve stimulation, which involves placement of an electrical stimulator on a peripheral nerve, is also used for neuropathic pain originating from peripheral nerves.

PSFS is a modification of peripheral nerve stimulation. In PSFS, leads are placed subcutaneously within the area of maximal pain. The objective of PSFS is to stimulate the region of affected nerves, cutaneous afferents, or the dermatomal distribution of the nerves, which then converge back on the spinal cord. Combined spinal cord stimulation and PSFS is also being evaluated.

Similar to spinal cord stimulation or peripheral nerve stimulation, permanent implantation is preceded by a percutaneous stimulation trial with at least 50% pain reduction. Currently, there is no consensus regarding the indications for PSFS. Criteria for a PSFS trial may include a clearly defined, discrete focal area of pain with a neuropathic or combined somatic/neuropathic pain component with characteristics of burning and increased

sensitivity, and failure to respond to other conservative treatments including medications, psychological therapies, physical therapies, surgery, and pain management programs.

The mechanism of PSFS is not known. Theories include an increase in endogenous endorphins and other opiate-like substances, modulation of smaller A-delta and C fibers with stimulation of large-diameter A-beta fibers, local stimulation of nerve endings in the skin, local anti-inflammatory and membrane depolarizing effect, or a central action via antegrade activation of A-beta nerve fibers. Complications of PSFS include lead migration or breakage and infection of the lead or neurostimulator.

The single randomized controlled trial compared different methods of PSFS and did not include a control or active comparison group; therefore this study offers little evidence for efficacy beyond that of a prospective, uncontrolled study. Case series suggest that self-reported pain is reduced after treatment with PSFS. However, case series are insufficient to evaluate pain outcomes due to the variable nature of pain and the subjective nature of the outcome measures. Prospective controlled trials comparing PSFS with placebo or alternative treatment modalities are needed to determine the efficacy of this treatment for chronic pain. Therefore, PSFS is considered not medically necessary.

CODING

BlueCHiP for Medicare and Commercial Products

There is no specific CPT code for this treatment. Report using unlisted CPT code 64999 (Unlisted procedure, nervous system), and follow the unlisted process.

RELATED POLICIES

Sympathetic Therapy for the Treatment of Pain

PUBLISHED

Provider Update, March 2017

REFERENCES

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3. Mironer YE, Hutcheson JK, Satterthwaite JR, et al. Prospective, two-part study of the interaction between spinal cord stimulation and peripheral nerve field stimulation in patients with low back pain: development of a new spinal-peripheral neurostimulation method. *Neuromodulation*. Mar-Apr 2011;14(2):151-154; discussion 155. PMID 21992203
4. Verrills P, Rose R, Mitchell B, et al. Peripheral Nerve Field Stimulation for Chronic Headache: 60 Cases and Long-Term Follow-Up. *Neuromodulation*. Oct 24 2013. PMID 24165152
5. Sator-Katzenschlager S, Fiala K, Kress HG, et al. Subcutaneous target stimulation (STS) in chronic noncancer pain: a nationwide retrospective study. *Pain Pract*. Jul-Aug 2010;10(4):279-286. PMID 20230450
6. Verrills P, Vivian D, Mitchell B, et al. Peripheral nerve field stimulation for chronic pain: 100 cases and review of the literature. *Pain Med*. Sep 2011;12(9):1395-1405. PMID 21812906

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