Neural Therapy

Policy Number: 2.01.85  Last Review: 2/2017
Origination: 2/2012  Next Review: 2/1018

Policy
Blue Cross and Blue Shield of Kansas City (Blue KC) will not provide coverage for neural therapy. This is considered investigational.

Please note: The following services performed with neural therapy will be denied per the benefit exclusion as related to the non-covered investigational procedure. These services include, but are not limited to: ultrasound imaging, nerve conduction studies, ultrasound guidance for the injection, vasopneumatic compression and neuromuscular rehabilitation.

When Policy Topic is covered
Not Applicable

When Policy Topic is not covered
Neural therapy is considered investigational for all indications.

Considerations
Neural therapy should be distinguished from the use of peripherally injected anesthetic agents for nerve blocks or local anesthesia. The site of the injection for neural therapy may be located far from the source of the pain or injury. The length of treatment can vary from one session to a series of sessions over a period of weeks or months.

Description of Procedure or Service

<table>
<thead>
<tr>
<th>Populations</th>
<th>Interventions</th>
<th>Comparators</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals: • With chronic pain or illnessa</td>
<td>Interventions of interest are: • Neural therapy</td>
<td>Comparators of interest are: • Usual medical management</td>
<td>Relevant outcomes include: • Symptoms • Functional outcomes • Quality of life • Medication use • Treatment-related morbidity</td>
</tr>
</tbody>
</table>

a For example, pain, allergies, hay fever, headaches, arthritis, asthma, hormone imbalances, libido, infertility, tinnitus, chronic bowel problems, sports or muscle injuries, gallbladder, heart, kidney, or liver disease, dizziness, depression, menstrual cramps, and skin and circulation problems.
Neural therapy involves the injection of a local anesthetic such as procaine or lidocaine into scars, trigger points, acupuncture points, tendon and ligament insertions, peripheral nerves, autonomic ganglia, the epidural space, and other tissues to treat chronic pain and illness. When the anesthetic agent is injected into traditional acupuncture points, this treatment may be called neural acupuncture.

The evidence for neural therapy in patients who have chronic pain or illness includes small randomized trials and a large case series. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. There are few English-language reports, and the available studies have methodologic limitations that preclude conclusions on efficacy. Therefore, the evidence is insufficient to permit conclusions concerning the health benefit of this procedure, and neural therapy is considered investigational.

Background

The practice of neural therapy is based on the belief that energy flows freely through the body. It is proposed that injury, disease, malnutrition, stress, and scar tissue disrupt this flow, creating disturbances in the electrochemical function of tissues and energy imbalances called “interference fields.” Injection of a local anesthetic is believed to reestablish the normal resting potential of nerves and flow of energy. Alternative theories include fascial continuity, the ground (matrix) system, and the lymphatic system. (1)

There is a strong focus on treatment of the autonomic nervous system, and injections may be given at a location other than the source of the pain or location of an injury. Neural therapy is promoted mainly to relieve chronic pain. It has also been proposed to be helpful for allergies, hay fever, headaches, arthritis, asthma, hormone imbalances, libido, infertility, tinnitus, chronic bowel problems, sports or muscle injuries, gallbladder, heart, kidney, or liver disease, dizziness, depression, menstrual cramps, and skin and circulation problems.

Rationale

This evidence review was created in 2011 and has been updated periodically using the MEDLINE database. The most recent literature update was performed through November 11, 2015.

Neural therapy is an alternative medicine modality that was developed in Germany and is most commonly reported in Europe. Most of the literature on neural therapy consists of non-English-language publications.

In 2012, Hui et al reported a nonblinded randomized controlled trial of complementary and alternative medicine (CAM) for chronic herpes zoster-related pain. The 59 patients included in the trial had a confirmed diagnosis of herpes zoster of at least 30 days in duration (median, 4.8 months; range, 1 month to 15 years) and with at least moderate postherpetic neuralgia pain (≥4 on a 10-point Likert scale). The therapy included 3 weeks of neural therapy (injection of 1% procaine at up to 6 points along the affected dermatome) along with other
therapies from traditional Chinese medicine (ie, acupuncture, cupping and bleeding, Chinese herbs) and meditation. A wait-list control group received the same treatment beginning 3 weeks after randomization. Intention-to-treat analysis of pain scores at 3 weeks showed significant improvement in the CAM group (baseline, 7.5; posttreatment, 2.3), with little change in the wait-list control group (baseline, 7.8; 3 weeks, 7.2). A reduction in pain of at least 50% was observed in 66.7% of patients in the treatment group compared with 8.7% in the control group. In the 56% of patients who responded to a questionnaire after 1 to 2 years, 78.8% reported continued relief of pain. Interpretation of the results is limited by the multiple interventions provided and the possibility of a placebo effect in this nonblinded study.

One English-language report from 1999 describes a small double-blind, randomized, placebo-controlled crossover trial in 21 patients with multiple sclerosis. Anesthetic or saline was injected at acupuncture points in the ankle and at 14 or 15 points around the circumference of the head. Patients received 2 injections of anesthetic or saline in the first week; in the second week all patients received anesthetic injections. At the end of the first week, 8 of 11 patients in the active treatment group and 1 of 10 in the placebo group had improved in 1 or more functions on the Kurtzke scale. Therapy was continued as needed for up to 3.5 years, with long-term improvements being reported in over 50% of patients. At the time of publication, the authors reported having treated more than 300 patients with multiple sclerosis with this approach.

A 2013 nonrandomized comparative study from Turkey compared neural therapy (n=33) with physical therapy (PT; n=27) for the treatment of chronic low back pain. The average duration of symptoms before treatment was 13.78 months. Patients who had not previously been treated with PT were assigned to the PT group, and patients who had previously failed PT were assigned to the neural therapy group. PT consisted of exercises, hot pack, ultrasound, and transcutaneous electrical nerve stimulation (TENS) over 15 sessions. Neural therapy consisted of anesthetic injection into scars, trigger points, and acupuncture points over 5 sessions. Outcome measurements included the visual analog score for pain, the Roland-Morris Disability Questionnaire for disability, the Nottingham Health Profile for quality of life, and the Hospital Anxiety Depression Scale for depression, anxiety, and quality of life. The neural therapy group exhibited greater disability and worse quality of life at baseline. Both groups improved over time, and there was greater improvement in the neural therapy group on some of the outcome measures. Interpretation of this study is limited due to the nonrandomized treatment assignment, lack of comparability between groups at baseline, and lack of a placebo control.

In a case series from 1990, Arnér et al reported prolonged relief of neuralgia after regional anesthetic blocks in 25 of 38 patients. All patients had neuralgia due to nerve injury (endogenous entrapment or surgical or accidental trauma) with a mean pain duration of 3.8 years (range, 6 months to 12 years). All patients had a demonstrable sensory deficit or sensory hyperfunction within the cutaneous territory supplied by the injured nerve as measured by quantitative sensory
testing. None of the patients had the classical type of complex regional pain syndrome (previously called reflex sympathetic dystrophy). Each patient received a series of 2 to 23 blocks (median, 5.2 blocks) of bupivacaine. Sixteen patients experienced subjective improvement for weeks to months after the series of blocks, but a second series of blocks was effective in only 7 of these patients. Four of the 7 reported sustained improvement after 1 to 4 years. Thirty of the 38 patients did not experience long-lasting pain relief and were subsequently treated with TENS. The report concluded that nerve blocks with local anesthetics rarely provide long-term, complete relief of neuralgia.

Egli et al reported on a series of 280 patients with chronic severe pain who had failed conventional medical measures. The most common reason for referral to the academic center in Europe was back pain, and more than two-thirds of patients had undergone physical therapy, osteopathy, or chirotherapy. After an average of 9.2 treatments (range, 1-40) in the first year, 126 patients reported that they were considerably better and 41 reported being pain-free. Of the 193 patients who were taking pain medications at the start of treatment, three-quarters had reduced pain medication or were taking no pain medication after 1 year.

In 2011, Schmittinger et al reported a case of brainstem hemorrhage following neural therapy for decreased libido.

**Ongoing and Unpublished Clinical Trials**
A search of ClinicalTrials.gov in November 2015 did not identify any ongoing or unpublished trials that would likely influence this review.

**Summary of Evidence**
The evidence for neural therapy in patients who have chronic pain or illness includes small randomized trials and a large case series. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. There are few English-language reports, and the available studies have methodologic limitations that preclude conclusions on efficacy. The evidence is insufficient to determine the effects of the technology on health outcomes.

**Practice Guidelines and Position Statements**
The American Association of Orthopaedic Medicine, which provides information and educational programs on the nonsurgical treatment of musculoskeletal problems, describes neural therapy on its website and provides a link for instructional courses on the procedure.

**U.S. Preventive Services Task Force Recommendations**
Not applicable.

**Medicare National Coverage**
There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.
References


Billing Coding/Physician Documentation Information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>20550</td>
<td>Injection(s); single tendon sheath, or ligament, aponeurosis (eg, plantar &quot;fascia&quot;)</td>
</tr>
<tr>
<td>20551</td>
<td>Injection(s); single tendon origin/insertion</td>
</tr>
<tr>
<td>20552</td>
<td>Injection(s); single or multiple trigger point(s), 1 or 2 muscle(s)</td>
</tr>
<tr>
<td>20553</td>
<td>Injection(s); single or multiple trigger point(s), 3 or more muscles</td>
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<tr>
<td>64400</td>
<td>Injection, anesthetic agent; trigeminal nerve, any division or branch</td>
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<tr>
<td>64402</td>
<td>Injection, anesthetic agent; facial nerve</td>
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<td>64405</td>
<td>Injection, anesthetic agent; greater occipital nerve</td>
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<td>64408</td>
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<td>64410</td>
<td>Injection, anesthetic agent; phrenic nerve</td>
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<td>64413</td>
<td>Injection, anesthetic agent; cervical plexus</td>
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<td>64415</td>
<td>Injection, anesthetic agent; brachial plexus, single</td>
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<td>64416</td>
<td>Injection, anesthetic agent; brachial plexus, continuous infusion by catheter (including catheter placement)</td>
</tr>
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<td>64417</td>
<td>Injection, anesthetic agent; axillary nerve</td>
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<td>64418</td>
<td>Injection, anesthetic agent; suprascapular nerve</td>
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<td>64420</td>
<td>Injection, anesthetic agent; intercostal nerve, single</td>
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<td>64421</td>
<td>Injection, anesthetic agent; intercostal nerves, multiple, regional block</td>
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<td>Injection, anesthetic agent; ilioinguinal, iliohypogastric nerves</td>
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<td>64430</td>
<td>Injection, anesthetic agent; pudendal nerve</td>
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<td>64435</td>
<td>Injection, anesthetic agent; paracervical (uterine) nerve</td>
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<td>64445</td>
<td>Injection, anesthetic agent; sciatic nerve, single</td>
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<td>64446</td>
<td>Injection, anesthetic agent; sciatic nerve, continuous infusion by catheter (including catheter placement)</td>
</tr>
<tr>
<td>64447</td>
<td>Injection, anesthetic agent; femoral nerve, single</td>
</tr>
<tr>
<td>64448</td>
<td>Injection, anesthetic agent; femoral nerve, continuous infusion by</td>
</tr>
</tbody>
</table>
catheter (including catheter placement)

64449 Injection, anesthetic agent; lumbar plexus, posterior approach, continuous infusion by catheter (including catheter placement)
64450 Injection, anesthetic agent; other peripheral nerve or branch
64479 Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); cervical or thoracic, single level
64480 Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional level (List separately in addition to code for primary procedure)
64483 Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level
64484 Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional level (List separately in addition to code for primary procedure)
64505 Injection, anesthetic agent; sphenopalatine ganglion
64508 Injection, anesthetic agent; carotid sinus (separate procedure)
64510 Injection, anesthetic agent; stellate ganglion (cervical sympathetic)
64517 Injection, anesthetic agent; superior hypogastric plexus
64520 Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)
64530 Injection, anesthetic agent; celiac plexus, with or without radiologic monitoring
96372 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular

There are no specific HCPCS codes for these local anesthetics when injected in this fashion (there is a code for IV lidocaine). The procedure would be reported using CPT codes for therapeutic injection such as:
20550: Injection(s); single tendon sheath, or ligament, aponeurosis (eg, plantar "fascia")
20551: Injection(s); single tendon origin/insertion
20552-20553: Code range for injection(s); single or multiple trigger point(s)
64400-64450: Code range for injection, anesthetic agent into nerves
64479-64484: Code range for injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance by spinal region
64505-64530: Code range for injection, anesthetic agent into autonomic nerves/ganglia
96372: Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular

Additional Policy Key Words
N/A

Policy Implementation/Update Information
2/1/12 New policy; considered investigational.
2/1/13 Policy clarified regarding other services performed in conjunction with
neural therapy.

2/1/14 No policy statement changes.
2/1/15 No policy statement changes.
2/1/16 No policy statement changes.
2/1/17 No policy statement changes.

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