

STIMULATION THERAPY AND DEVICES

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Summary of Changes

Clarifications:

-

Deletions:

-

Additions:

- Pgs. 3-4, Section V, criteria for the coverage of Dorsal Root Ganglion Stimulators.
- Pg. 14, Section XXI, remedē System (Respicardia Inc.) phrenic nerve stimulator for central sleep apnea.

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All stimulation devices require prior authorization by Priority Health.

Note: Electro-acupuncture not covered by this policy may be covered with a rider for some commercial plans.

I. BONE GROWTH STIMULATORS

Refer to InterQual® criteria. Both invasive and non-invasive bone growth stimulators must meet InterQual® criteria for Bone Growth Stimulators.

II. CHRONIC SKIN ULCERS

Electrical or electromagnetic stimulation of wounds and skin ulcers in a home setting is **not a covered benefit**.

III. DEEP BRAIN STIMULATION/STEREOTACTIC INTRODUCTION, SUBCORTICAL ELECTRODES

Deep brain stimulation/stereotactic introduction, subcortical electrodes are covered according to InterQual® criteria.

Deep brain stimulation (both unilateral and bilateral) is considered investigational and not a covered benefit for other conditions, including but not limited to:

1. Tremor from other causes such as trauma, multiple sclerosis, degenerative disorders, metabolic disorders, infectious diseases, drug-induced movement disorders
2. Cluster headaches
3. Voice tremor
4. Psychiatric disorders, including obsessive-compulsive disorder
5. Significant brain damage, atrophy, cognitive impairment, dementia or depression, which would be worsened by or would interfere with the patient's ability to benefit from DBS.
6. Tourette's syndrome
7. Current psychosis, alcohol abuse or other drug abuse.
8. Structural lesions such as basal ganglionic stroke, tumor or vascular malformation as etiology of the movement disorder.
9. Previous movement disorder surgery within the affected basal ganglion.
10. Significant medical, surgical, neurologic or orthopedic co-morbidities contraindicating DBS surgery or stimulation.
11. Treatment of dystonia or any neurological movement disorders other than ET or PD as outlined in this policy.

Contraindications to deep brain stimulation include the following:

1. Patients who are not good surgical risks because of comorbid medical problems or because of the presence of a cardiac pacemaker
2. Patients who have medical conditions that require repeated MRI
3. Patients who have dementia that may interfere with the ability to cooperate
4. Patients who have had botulinum toxin injections within the last six months

IV. DIAPHRAGMATIC/PHRENIC PACING

Diaphragmatic/phrenic pacing is covered as DME to improve ventilatory function in stable, non-acute patients with spinal cord injury (SCI) when ALL of the following criteria are met:

- Patient has high quadriplegia at or above C-3, and
- There are viable phrenic nerves, and
- Patient's diaphragm and lung function are adequate.

V. DORSAL COLUMN/SPINAL CORD/DORSAL ROOT GANGLION STIMULATORS (DCS/SCS/DRGS) STIMULATORS

Dorsal column/spinal cord /dorsal root ganglion stimulators (DCS/SCS/DRGS) are covered when used for FDA approved indications as follows:

A. Non-malignant pain:

DCS/SCS/DRGS (e.g. Senza SCS) is covered for managing chronic, intractable, non-malignant pain (see below for angina and complex regional pain syndrome) in patients who meet ALL of the following criteria:

1. There is documented pathology, i.e., an objective basis for the pain complaint, and
2. Other more conservative methods of pain management have been tried and failed, and
3. Patient does not have any untreated drug addiction problems (per American Society of Addiction Medicine (ASAM) guidelines), and
4. Patient has obtained psychiatric clearance, and
5. Patient has predominantly neuropathic pain including radiculopathies, peripheral neuropathy, peripheral vascular disease, complex regional pain syndrome (criteria below), or failed back surgery syndrome with low back pain and significant radicular pain, and
6. Patient experienced significant pain reduction (50% or more) with a 2 day trial of percutaneous spinal stimulation.

Dorsal root ganglion stimulators are a covered benefit for Complex Regional Pain Syndrome (CRPS) Type I or Type II (peripheral causalgia) when all of the following criteria are met:

1. Conservative methods of pain management have been tried and failed, and
2. Patient does not have any untreated drug addiction problems (per American Society of Addiction Medicine (ASAM) guidelines), and
3. Patient has obtained psychiatric clearance, and
4. Patient experienced significant pain reduction (50% or more) with a 2 day trial of percutaneous spinal stimulation.

B. Angina:

DCS is covered for the management of intractable angina in patients who are not surgical candidates and whose pain is unresponsive to all standard therapies when ALL of the following criteria are met:

1. Patient has angiographically documented significant coronary artery disease and is not a suitable candidate for revascularization procedures such as coronary artery bypass grafting (CABG) or percutaneous transluminal coronary angioplasty (PTCA), and
2. Patient's angina pectoris is New York Heart Association (NYHA) Functional Class III (patients are comfortable at rest; less than ordinary physical activity causes fatigue, palpitation, dyspnea, or anginal pain) or Class IV (symptoms of cardiac insufficiency or angina are present at rest; symptoms are increased with physical activity), and
3. Reversible ischemia is documented by symptom-limited treadmill exercise test, and
4. Patient has had optimal pharmacotherapy for at least one month. Optimal pharmacotherapy includes the maximal tolerated dosages of at least two of the following anti-anginal medications: long-acting nitrates, beta-adrenergic blockers, or calcium channel antagonists; and
5. Patient experiences significant pain reduction (50% or more) with a 2 day trial of percutaneous spinal stimulation.

Note: Criteria for exclusion from coverage of DCS in treating intractable angina pectoris include either of the following:

- Myocardial infarction or unstable angina in the previous 3 months, or
- Significant valve abnormalities as demonstrated by echocardiography.

Spinal cord stimulation **is not a covered benefit** for the following conditions:

- Post herpetic neuralgia
- Pain and spasticity related to spinal cord injuries
- Rectal pain
- Phantom limb pain
- Pain secondary to cancer
- Patient fails multidisciplinary screening as detailed above
- Axial pain exceeding radicular pain

VI. VAGAL NERVE STIMULATION

Vagal Nerve Stimulation is a covered benefit according to InterQual® criteria.

Vagal Nerve Stimulation for indications other than partial onset seizures (e.g. depression, autism, Alzheimer's, obesity, headache) has not been established as effective, is considered experimental and **not a covered benefit**.

Vagal Nerve Stimulation for Treatment Resistant Depression is **not a covered benefit**.

Vagal Blocking for Obesity Control (VBLOC) is **not a covered benefit**.

Non-invasive vagal nerve stimulation (e.g. GammaCore) for treatment of all headache types is **not a covered benefit**.

VII. NEUROSTIMULATION WITH NEUROPACE® RNS® (RESPONSIVE NEUROSTIMULATION) DEVICE

Neurostimulation with the FDA approved NeuroPace® RNS® device is a covered benefit for the treatment of seizures in adults with partial-onset seizures refractory to at least 2 antiepileptic medications.

VIII. FUNCTIONAL ELECTRICAL STIMULATION (FES)

FES (or NMES) may be a covered benefit for acute or post-acute upper extremity rehabilitation following a stroke when criteria are met. Refer to NMES (Section XIV) for criteria.

Functional Electrical Stimulation (FES) for all other diagnoses has not been proven efficacious and therefore is not a covered benefit.

IX. GALVANIC STIMULATORS

Galvanic stimulators have not been scientifically shown to be medically effective or necessary and are not a covered benefit.

X. HIGH-VOLTAGE PULSED ELECTROGALVANIC STIMULATORS

High-voltage pulsed electrogalvanic stimulators are covered as DME for patients with levator syndrome (proctalgia fugax, chronic anal pain syndrome) who meet ALL of the following criteria:

- No underlying disease has been revealed by anorectal exam or by manometry, radiology, or endoscopy, and a neurological cause for the pain cannot be detected, and
- Patient has failed prior conservative treatments, namely, high fiber diet, withdrawal of drugs that cause constipation (e.g., narcotics, calcium channel blockers) or diarrhea (e.g., quinidine, theophylline, antibiotics), perineal strengthening exercises, rectal massage, warm baths, and drug therapy (e.g., sedatives, muscle relaxants, and non-narcotic analgesics).

- More than three 60-minute sessions, administered over a 10-day period, are not considered medically necessary and are not covered. Electrogalvanic stimulators for home use are not covered because they have not been proven to be safe and effective for home use.

XI. INCONTINENCE STIMULATORS

1. URINARY INCONTINENCE STIMULATORS

A. *External electrical muscle stimulators / pelvic floor stimulators* (e.g., Innova) are covered as DME for management of urinary incontinence when ALL of the following criteria are met:

- Patient is diagnosed with stress, urge, or mixed incontinence, and
- There is an average of 3 or more episodes of gross urinary incontinence per week, and
- There is no glycosuria or pyuria, and
- Patient has tried and failed pelvic floor exercises (Kegel exercises).
- Patient has failed maximal pharmacologic management.

B. *InterStim Continence Control Therapy/Sacral Nerve Stimulation*:

Sacral nerve stimulation involves both a temporary test stimulation to determine if an implantable stimulator would be effective and a permanent implantation in appropriate candidates. Both the test and the permanent implantation are covered.

Implantation of the InterStim (Medtronic Inc., Minneapolis, MN), a device for stimulation of the sacral nerve, is covered for the treatment of any of the following:

1. urinary urge incontinence,
2. urgency-frequency syndrome
3. urinary retention.

The following criteria apply:

- Patient must be refractory to conventional therapy (documented behavioral, pharmacologic and/or surgical corrective therapy) and be an appropriate surgical candidate such that implantation with anesthesia can occur.
- Patient must have had a successful test stimulation (1-2 week trial) in order to support subsequent implantation. Before a patient is eligible for permanent implantation, he/she must demonstrate a 50% or greater improvement through test stimulation. Improvement is measured through voiding diaries. Adequate bladder capacity and normal urinary tract
- The device must be FDA approved and used according to FDA labeling

- Age 16 years or older

Non-Covered: SNS is not a covered benefit in patients with, but not limited to, the following conditions:

- Patients with stress incontinence, urinary obstruction, and specific neurologic diseases (e.g., diabetes with peripheral nerve involvement) which are associated with secondary manifestations of the above three indications
- Neurogenic urinary retention
- Pregnancy
- Diabetes
- Interstitial cystitis
- Pelvic pain
- Fowler's syndrome
- Multiple sclerosis
- Patients with mechanical obstructions/strictures or cancer

C. *Percutaneous Tibial Nerve Stimulation (PTNS)*

Description:

Percutaneous tibial nerve stimulators are intended for use by patients with urinary urgency, urinary frequency, and urge incontinence. The stimulators deliver retrograde access to the sacral nerve through percutaneous stimulation of the tibial nerve.

Percutaneous tibial nerve stimulators are classified in the Food and Drug Administration (FDA) 510(k) database under the general Product Code NAM, which identifies them as nonimplanted, peripheral nerve stimulators for pelvic floor dysfunction, or nonimplanted, peripheral electrical continence devices. The FDA defines these devices as consisting of an electrode that is connected by an electrical cable to a battery-powered pulse source. The electrode is placed onto or inserted into the body at a peripheral location and is used to stimulate the nerves associated with pelvic floor function to maintain urinary continence. When necessary, the electrode may be removed by the user.

Treatments are commonly 30 minutes in length and are given for 12 consecutive weeks. Reportedly, the benefits of these treatments continue for long periods of time; however, maintenance treatments are usually needed and tailored to each specific patient.

Policy:

PTNS may be a covered benefit for the diagnosis of urinary incontinence or overactive bladder when **both** of the following are met:

1. Failure of medication , AND
2. Failure of pelvic floor exercises (e.g. Kegels, biofeedback)

Coverage is limited to 24 treatments in a year.

2. FECAL INCONTINENCE STIMULATORS

- A. *Sacral nerve stimulation* is a covered benefit for fecal incontinence when *all* of the following are met:
1. Chronic fecal incontinence: 2 or more episodes per week on average and duration of greater than 6 months.
 2. Failure of conservative therapy (e.g. dietary management, pharmacotherapy, strengthening exercises).
 3. A successful percutaneous test stimulation (1-2 week trial) in order to support subsequent permanent implantation. Before a patient is eligible for permanent implantation, he/she must demonstrate a 50% or greater improvement through test stimulation.

Device is FDA approved (e.g. Medtronic's InterStim) and used as labeled.

XII. GASTRIC STIMULATION

Gastric stimulation (gastric pacemaker) for the treatment of gastroparesis is covered as defined in the *Gastroparesis Testing and Treatment medical policy #91572*.

XIII. INTERFERENTIAL STIMULATORS

Interferential stimulators, including those combined with muscle stimulation (e.g. RS-4i), have not been scientifically shown to be medically effective or necessary and are not a covered benefit.

XIV. NEUROMUSCULAR ELECTRICAL STIMULATION (NMES)

Neuromuscular electrical stimulators (NMES) are covered as DME for either of the following (A or B):

- A. Disuse atrophy where the nerve supply to the muscle is intact and the patient has ANY of the following non-neurological reasons for disuse atrophy:
- Previous casting or splinting of a limb, or
 - Contractures due to burn scarring, or
 - Recent hip replacement surgery (NMES is covered until physical therapy begins), or
 - Previous major knee surgery (when there is failure to respond to physical therapy).
- B. Acute or post-acute upper extremity rehabilitation following a stroke, with all of the following:

- NMES or FES (Functional Electrical Stimulation) is done in conjunction with conventional physical or occupational rehabilitation
- Therapy is restorative in nature
- Reasonable expectation for meaningful functional improvement within 90 days in ability to perform functional day-to-day activities

More than 2 hours of NMES per day is not considered medically necessary and is not covered.

Prior authorization by Priority Health is required. Compliance logs, if available, may be reviewed for continued authorization.

A form fitting conductive garment is **not a covered** benefit.
NMES is **not a covered benefit** for ANY of the following:

- Spinal cord injury
- Stroke (CVA), except for upper extremity rehabilitation following stroke as above
- Cerebral palsy
- Other upper motor neuron disorders
- For general muscle strengthening in healthy individuals
- For cardiac conditioning
- For the treatment of denervated muscles

XV. PERCUTANEOUS ELECTRICAL NERVE STIMULATION (PENS) AND PERCUTANEOUS NEUROMODULATION THERAPY (PNT)

PENS and PNT have not been proven to be effective and are **not a covered** benefit.

XVI. PERIPHERALLY IMPLANTED NERVE STIMULATORS

Peripherally implanted nerve stimulators are covered as DME for treatment of intractable neurogenic pain when ALL of the following criteria are met:

- Patient has chronic intractable pain, refractory to other methods of treatment (analgesics, physical therapy, local injection), and
- There is objective evidence of pathology (e.g., electromyography), and
- There is no psychological contraindication to peripheral nerve stimulation, and
- Patient is not addicted to drugs, and
- A two week trial of transcutaneous stimulation was successful (resulting in at least a 50% reduction in pain).

Peripheral nerve stimulation has been shown to be effective in treating neurogenic pain in the following conditions:

- Reflex sympathetic dystrophy
- Causalgia
- Plexus avulsion
- Operative trauma
- Entrapment neuropathies
- Injection injuries

Peripheral nerve stimulation has NOT been shown to be effective in treating post-herpetic neuralgia and is not covered for this indication.

XVII. Pulsed Electrical Stimulation for the treatment of osteoarthritis of the knee (e.g. BioniCare 1000®)

Coverage Decision:

Based on the available evidence in the peer-reviewed medical literature, Priority Health considers pulsed electrical stimulation for the treatment of osteoarthritis of the knee to be experimental and investigational because the short-term and long-term effectiveness of the treatment have not been established.

Evidence:

1. Zizic, et al. (1995) evaluated the safety and effectiveness of pulsed electrical stimulation for the treatment of osteoarthritis (OA) of the knee (n = 78). Patients were treated 6 hours per day for four weeks. The investigators reported that patients treated with the active devices showed significantly greater improvement than the placebo group for all primary efficacy variables in comparisons of mean change from baseline to the end of treatment. Improvement of greater or equal to 50% from baseline was shown in at least one primary efficacy variable in 50% of the active device group, in 2 variables in 32 %, and in all 3 variables in 24%. In the placebo group improvement of greater or equal to 50% occurred in 36% for one, 6% for 2, and 6% for 3 variables. Mean morning stiffness decreased 20 minutes in the active device group and increased 2 minutes in the placebo group (p < 0.05). No statistically significant differences were observed for tenderness, swelling, or walking time. The authors concluded that improvements in clinical measures for pain and function found in this study suggest that pulsed electrical stimulation is effective for treating OA of the knee. The investigators noted, however, that studies of the durability of results are warranted.
2. In 2002, the Cochrane Collaboration evaluated the published evidence on the effectiveness of pulsed electric stimulation for the treatment of osteoarthritis (OA). The study also assessed the most effective and efficient method of applying an electromagnetic field, through pulsed electromagnetic fields (PEMF) or electric stimulation, as well as the consideration of length of treatment, dosage, and the frequency of the applications.

Only three studies with a total of 259 OA patients were eligible for inclusion in the review. Electrical stimulation therapy had a small to moderate effect on outcomes for knee OA, all statistically significant with clinical benefit ranging from 13-23% greater with active treatment than with placebo. Only 2 outcomes for cervical OA were significantly different with PEMF treatment and no clinical benefit can be reported with changes of 12% or less. The reviewers concluded that the current evidence suggests that electrical stimulation therapy may provide significant improvements for knee OA, but further studies are required to confirm whether the statistically significant results shown in these trials confer important and durable benefits.

3. Results of a four year study of the BioniCare device in 157 patients were presented as a poster presentation at the 2004 meeting of the American Academy of Orthopaedic Surgeons. Patients in this study had moderate to severe knee osteoarthritis and were considered candidates for total knee arthroplasty. The poster presenters reported that patients using the BioniCare system avoided total knee arthroplasty over 50% of the time ($p=0.0004$) at one, two, three and four year follow-up when compared to a matching group of 101 patients. Study patients who avoided surgery also reported “significant improvements in pain scores (mean improvement 40%), function (mean improvement 38%), and physician global evaluation (mean 38%).” The manufacturer is seeking publication of the full results of this study. This study does not have a randomly assigned control group.

References:

1. Zizic TM, Hoffman KC, Holt PA, et al. The treatment of osteoarthritis of the knee with pulsed electrical stimulation. *J Rheumatol.* 1995;22(9):1757-1761.
2. Hulme J, Robinson V, DeBie R, et al. Electromagnetic fields for the treatment of osteoarthritis. *Cochrane Database Syst Rev.* 2002;(1):CD003523.
3. Mont MA, He DY, Jones LC et al. Abstract: The use of pulsed electrical stimulation (PES) to defer total knee arthroplasty (TKA) in patients with osteoarthritis (OA) of the knee. Presented at American Academy of Orthopaedic Surgeons annual meeting, March 2004

This policy is based on the review and recommendation of Priority Health’s Technology Assessment Committee on March 4, 2005.

XVIII. SURFACE ELECTRICAL MUSCLE STIMULATION

Surface electrical muscle stimulation (direct or alternating current, not high voltage galvanic current) is covered as DME for the management of juvenile or adolescent idiopathic scoliosis when ALL of the following criteria are met:

- Patient has juvenile or adolescent idiopathic scoliosis that has not been surgically treated and the scoliosis is not currently being treated with bracing, and
- Spinal curvature is between 20 and 45 degrees (Cobb measurement based on radiographic studies), and
- Spinal curvature is highly progressive, with documented progression of curvature of 5 degrees or more within the past 12 months for curves

- between 20 and 30 degrees. (With these immature patients, curves of 30 degrees or more are presumed to be highly progressive.), and
- There is a minimum of 50% correction on forced lateral bending, and
 - Patient has a minimum of 1 year of bone growth remaining, as judged by the physician.

Note: Since treatment may last from 6 to 18 months, purchase of the equipment may be covered if it is more economical than rental.

XIX. TRANSCUTANEOUS ELECTRICAL NERVE STIMULATOR (TENS)

- A. Use of TENS for any diagnosis for a two month trial does not require prior authorization.
- B. Authorization of TENS beyond the two month initial trial for any diagnosis (except those listed in C. below) requires documentation of at least *two* of the following:
- Increased physical activity
 - Decreased pain
 - Decreased use of analgesics
- C. Use of TENS for the following low back diagnoses does not require authorization:
- | | |
|-------------------|--|
| M51.36 – M51.37 | Other intervertebral disc degeneration |
| M53.2x7 - M53.2x8 | Spinal instabilities |
| M53.3 | Sacrococcygeal disorders, not elsewhere classified |
| M53.86 – M53.88 | Other specified dorsopathies |
| M54.5 | Low back pain |
| M54.89 – M54.9 | Other dorsalgia |

XX. ELECTRIC TUMOR TREATMENT FIELDS (ETTF) DEVICES

Electric tumor treatment fields (ETTF) devices (e.g. NovoTTF, Optune) are covered for the following FDA approved indications:

1. for the treatment of *recurrent* glioblastoma when used as monotherapy for persons with histologically confirmed glioblastoma, after histologically or radiologically confirmed recurrence in the supratentorial region of the brain after receiving chemotherapy.
2. for use in combination with temozolomide to treat adults with *newly diagnosed* glioblastoma multiforme (GBM), following standard treatments that include surgery, chemotherapy, and radiation therapy.

ETTF devices for all other indications are considered experimental and not covered.

XXI. NON-COVERED ELECTRICAL STIMULATION THERAPIES

The following electrical stimulation therapies are **not covered** because their effectiveness has not been established:

1. Cranial electrical stimulation (also known as electrosleep, electrotherapeutic sleep, cerebral electrotherapy, transcranial electrotherapy, transcerebral electrotherapy, craniofacial electrostimulation, and electric cerebral stimulation) for use in patients with headaches (e.g. Cefaly device), depression, chemical dependency, or alcoholism (e.g., using the Liss Body Stimulator to treat this indication)
2. Electric reflex salivary stimulation (Salitron System) to treat xerostomia (dry mouth) secondary to Sjogren's syndrome
3. Neuromuscular electrical stimulation for ANY of the following conditions:
 - Spinal cord injury
 - Stroke (CVA), except for upper extremity rehabilitation post stroke as noted in Section XII
 - Cerebral palsy
 - Other upper motor neuron disorders
 - For general muscle strengthening in healthy individuals
 - For cardiac conditioning
 - For the treatment of denervated muscles
4. Transurethral electrical stimulation for the management of neurogenic bladder dysfunction
5. High frequency pulsed electromagnetic fields (i.e., Diapulse and sofPulse device) for the treatment of wounds in the home setting or acute postoperative pain and edema
6. Interferential current therapy
7. Electrical stimulation for the treatment of Bell's palsy
8. Stellate ganglion blockade using TENS
9. Dorsal column stimulation for the management of chronic malignant pain
10. H-WAVE ® type stimulators for ANY of the following indications:
 - To reduce pain
 - To reduce edema
 - To accelerate healing
 - For treatment of chronic pain due to ischemia
11. Functional electrical stimulation for electrical stimulation of muscles in patients with spinal cord injuries and other neuromuscular conditions
12. Intramuscular stimulation (IMS) for the management of soft-tissue or neuropathic pain.
13. Galvanic stimulation therapy
14. Electrical stimulation for wound healing or skin ulcers in the home setting
15. Percutaneous Electrical Stimulation (PENS)
16. Percutaneous Neuromodulation Therapy (PNT)
17. Transcend® Implantable Gastric Stimulator for treatment of obesity
18. Synergy® Neurostimulator (Medtronic) for intractable migraine pain
19. Vagal nerve stimulators, both invasive and non-invasive, for all indications other than seizures as defined in Section VI. Non-covered indications include, but are not limited to depression, Alzheimer's disease, obesity, headache, obsessive-compulsive disorder, autism and ADHD.

20. Microcurrent, Electrical Nerve Stimulation (MENS), including Frequency-Specific Microcurrent (FSM). Also known as Bio-Electric Stimulation Therapy (BEST), By Kingfisher Healthcare.
21. Motor cortex stimulation for neuropathic facial pain.
22. Devices (e.g. NovoTTF-100A System, Novocure, Portsmouth, NH) to generate electric tumor treatment fields (ETTF) for the treatment of malignant tumors and all other indications, unless criteria in Section XX are met.
23. Transcranial magnetic stimulation (e.g. Cerena) for treatment of migraine headaches. (For use in depression see *Transcranial Magnetic Stimulation for Depression medical policy #91563*).
24. Carotid sinus/baroreceptor stimulators (e.g., the Barostim neo™ System, and the Rheos Baroreflex Hypertension Therapy System) for the treatment of *hypertension and for all other indications (e.g., heart failure)*.
25. Vagal Blocking for Obesity Control (VBLOC, Maestro Rechargeable System)
26. Calmare Pain Therapy (Calmare Therapeutics Inc.)
27. Hypoglossal neurostimulation for obstructive sleep apnea (e.g. Inspire II, aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System). See Obstructive Sleep Apnea medical policy
28. ARP (Accelerated Recovery Performance) wave therapy/ARWave
29. All auricular electroacupuncture devices (e.g. P-STIM™ device,) , and all other electrical acupuncture, for any indication, including but not limited to, pain and substance use or addiction..
30. remedē System (Respicardia Inc.) phrenic nerve stimulator for central sleep apnea

XXII. BACKGROUND

The following are brief descriptions of various types of electrical stimulation:

Transcutaneous Electrical Nerve Stimulation (TENS) is characterized by biphasic current and selectable parameters such as pulse rate and pulse width. In theory, TENS stimulates sensory nerves to block pain signals; it also stimulates endorphin production to help normalize sympathetic function. Most TENS units produce current of 1 to 80 microampere (mA), 9 V (average), 2 to 1,000 Hz, with a pulse width of 250 to 400 microseconds (mS).

Neuromuscular Stimulation (NMS), Electrical Muscle Stimulation (EMS) is characterized by low voltage stimulation targeted to stimulate motor nerves to cause a muscle contraction. Contraction/relaxation of muscles has been used to treat a variety of musculoskeletal and vascular conditions. NMS/EMS differs from TENS in that it, through multiple channels, attempts to stimulate motor nerves and alternately causes contraction and relaxation of muscles, while TENS is designed to stimulate sensory nerve endings to help decrease pain.

Russian Muscle Stimulation, Burst-Modulated Alternating Current is similar to NMS/EMS in that it is designed to stimulate motor nerves. However, it is set at a

frequency of 2,500 Hz, which, according to its proponents, allows for deeper muscle penetration and a more complete/stronger contraction of the muscle fibers.

Functional Electrical Stimulation (FES), also known as functional neuromuscular stimulation and EMG-triggered neuromuscular stimulation, attempts to replace stimuli from destroyed nerve pathways with computer-controlled sequential electrical stimulation of muscles to enable patients with spinal cord injury or stroke to function independently, or at least maintain healthy muscle tone and strength.

High Voltage Pulsed Galvanic Stimulation (HVPGS) is characterized by high voltage (300 to 500 V), short pulse duration (2 to 60 mS) stimulation and exhibit a monophasic twin peak waveform. Most HVPGS produce a high peak current intensity 2,000 to 2,500 mA. Because the interval between paired pulses generated by HVPGS make up as much as 99% of each second that the current flows, the total current (average) delivered to the tissue per second does not exceed 1.2 to 1.5 mA; thus HVPGS has been reported to be tolerated by most patients.

Microcurrent Electrical Nerve Stimulation (MENS) is a “TENS-like” unit for home use that uses small amounts of electrical current for pain and tissue healing. According to its proponents, MENS acts on the body's naturally occurring electrical impulses to decrease pain and facilitate the healing process. MENS employs microamperage instead of milliamperage to drive its current into the injured site. What appears to be a small driving force is compensated by the pulse width of the waveform (500,000 mS). MENS uses current between 1 and 1000 mA at a voltage of 10 to 60 V, and a frequency of 0.5 to 100 Hz. MENS differs from TENS in that it uses a significantly reduced electrical stimulation. TENS blocks pain, while MENS (in theory) acts on the naturally occurring electrical impulses to decrease pain by stimulating the healing process. There is no evidence in the peer-reviewed medical literature to support the efficacy of MENS.

Electro-Acuscope, Microamperage-TENS: According to the manufacturer, the Electro-Acuscope is a feedback-oriented, microcurrent stimulator designed to generate complex waveforms that automatically adjust to meet the need of injured tissue. It is also known as the microamperage-TENS (TENS usually utilizes milliamperage current). The Electro-Acuscope supposedly can monitor moment-to-moment bioelectric activity and feed back appropriate current pulses. This feature of the Electro-Acuscope allegedly distinguishes it from other MENS devices. The Electro-Acuscope can generate both direct and alternating currents. Frequency settings range from 0.5 to 320 Hz. A current of less than 500 mA is recommended by the manufacturer.

Interferential Stimulation (IF) is characterized by two alternating-current sine waves of differing frequencies that “work” together to produce an interferential current that is also known as a beat pulse or alternating modulation frequency. One of the two currents is usually held at 4,000 Hz, and the other can be held constant or varied over a range of 4,001 to 4,100 Hz. Interferential currents reportedly can stimulate sensory, motor, and pain fibers. Because of the frequency, the interferential wave meets low impedance when crossing the skin to enter the underlying tissue. This deep tissue penetration can be

adjusted to stimulate parasympathetic nerve fibers for increased blood flow. According to proponents, interferential stimulation differs from TENS because it allows a deeper penetration of the tissue with more comfort (compliance) and increased circulation.

Electro-Acupuncture, Acupuncture-like TENS (AL-TENS), Intense TENS: Electro-acupuncture is characterized by applying stimulation to specific acupuncture or trigger points on the body in small electrical impulses through acupuncture needles or with hand-held cutaneous probes. The frequency of stimulation may vary from 1 to 1,000 Hz. Electro-acupuncture stimulation differs from TENS because TENS uses a higher voltage cutaneous stimulation.

Percutaneous Electrical Nerve Stimulation (PENS) combines advantages of both electro-acupuncture and TENS. Rather than using surface electrodes, PENS uses acupuncture-like needles as electrodes. These needles are placed in the soft tissues or muscles at dermatomal levels corresponding to local pathology (needles are usually inserted above and below and into the central area of pain). A 5-Hz frequency with a pulse width of 0.5 mS is usually used. If relief is not attained within 15 minutes, the frequency may be lowered to 1 Hz. According to PENS proponents, the main advantage of PENS over TENS is that it bypasses the local skin resistance and delivers electrical stimuli at the precisely desired level in close proximity to the nerve endings located in soft tissue, muscle, or periosteum of the involved dermatomes.

H-Wave Stimulation delivers electrical stimulation in the form of milliamperage. H-wave stimulation is intended to emulate the H waveform found in nerve signals (Hoffman Reflex) and therefore enables greater and deeper penetration of a low frequency current, while using significantly less power than other machines. This allegedly makes H-Wave stimulation much safer, less painful and more effective than other forms of electrotherapy to date. The H-wave signal is a bipolar, exponential decaying waveform that overcomes the disadvantages of other electrotherapy machines. It allows the therapist to apply two treatments at the same time: (i) low frequency muscle stimulation and (ii) high frequency deep analgesic pain control (a "TENS" effect). Note: H-wave stimulation must be distinguished from the H-waves that are a component of EMG.

Galvanic stimulation is characterized by high voltage, pulsed stimulation and is used primarily for local edema reduction through muscle pumping and polarity effect. Edema is comprised of negatively charged plasma proteins, which leak into the interstitial space. The theory of galvanic stimulation is that by placing a negative electrode over the edematous site and a positive electrode at a distant site, the monophasic high voltage stimulus applies an electrical potential which disperses the negatively charged proteins away from the edematous site, thereby helping to reduce edema.

Gastric pacing was cleared by the FDA as a humanitarian use device. Thus, the manufacturer was not required to submit the level of evidence that would be required to support a premarket approval application (PMA). The data presented to the FDA documenting the "probable benefit" of gastric pacing (Gastric Electrical Stimulation (GES) System) was based on a multicenter double-blind cross-over study (FDA, 2000)

which included 33 patients with intractable idiopathic or diabetic gastroparesis. In the initial phase of the study, all patients underwent implantation of the stimulator and were randomly assigned to stimulation ON or stimulation OFF for the first month, with cross-over to OFF and ON during the second month. The baseline vomiting frequency was 47 episodes per month, which significantly declined in both ON and OFF groups to 23 to 29 episodes, respectively. However, there were no significant differences in the number of vomiting episodes between the two groups, suggesting a placebo effect.

Electric tumor treatment fields (ETTF). Alternating electric fields, generated by insulated electrodes, have been reported to exhibit inhibitory effect on the growth rate of a variety of human and rodent tumor cell lines as well as malignant tumors in animals. Electric tumor treating fields (ETTF) are low-intensity (1 to 2 V/cm), intermediate-frequency (100 to 200 kHz), alternating electric fields employed for the treatment of malignant tumors. This novel treatment modality has shown promise in pilot clinical trials in patients with advanced stage solid tumors including glioblastoma (GBM).

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MEDICAL NECESSITY REVIEW:

Required Not Required Not Applicable

APPLICATION TO PRODUCTS:

Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

- ❖ **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ❖ **POS:** *This policy applies to insured POS plans.*
- ❖ **PPO:** *This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.*
- ❖ **PPO:** *This policy applies to insured PPO plans.*
- ❖ **ASO:** *For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.*
- ❖ **INDIVIDUAL:** *For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.*
- ❖ **MEDICARE:** *Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.*
- ❖ **MEDICAID/HEALTHY MICHIGAN PLAN:** *For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.*

CODING INFORMATION:

Diagnosis information may be truncated – verify codes using appropriate references.

Prior auth required for all services and devices unless indicated.

(No Auth) = no prior authorization required

I. Bone Growth Stimulator

ICD-10 Codes:

(See InterQual® criteria)

CPT/HCPCS Codes:

E0747 Osteogenesis stimulator, electrical, noninvasive, other than spinal applications

E0748 Osteogenesis stimulator, electrical, noninvasive, spinal applications

E0749 Osteogenesis stimulator, electrical, surgically implanted (*Not covered for Priority Medicaid*)

E0760 Osteogenesis stimulator, low intensity ultrasound, noninvasive

20974 Electrical stimulation to aid bone healing; noninvasive (nonoperative) (**No Auth**) (*Not covered for Priority Medicaid*)

20975 Electrical stimulation to aid bone healing; invasive (operative)

20979 Low intensity ultrasound stimulation to aid bone healing, noninvasive (nonoperative) (**No Auth**) (*Not covered for Priority Medicaid*)

II. Chronic Skin Ulcers - not covered for home

ICD-10 Codes that may apply:

I70.231 – I70.25 Atherosclerosis with ulcer, leg

L89.000 - L89.95 Pressure ulcer

L97.101 - L97.929 Nonpressure chronic ulcer

L98.411 – L98.499 Other Nonpressure ulcer

CPT/HCPCS Codes:

97014 Application of a modality to one or more areas; electrical stimulation (unattended) (**No Auth**) (*Code not covered for Priority Medicare*)

Medicare only --

G0281 Electrical stimulation, (unattended), to one or more areas, for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers, and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care, as part of a therapy plan of care (**No Auth**)

G0283 Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care (**No Auth**)

G0329 Electromagnetic therapy, to one or more areas for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care as part of a therapy plan of care (**No Auth**)

Not Covered

E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified

- G0282 Electrical stimulation, (unattended), to one or more areas, for wound care other than described in G0281
- G0295 Electromagnetic therapy, to one or more areas, for wound care other than described In G0329 or for other uses

III. Deep Brain Stimulation

ICD-10 Codes that may support medical necessity:

- G20 Parkinson's disease
- G23.0 – G23.9 Other degenerative diseases of basal ganglia
- G25.0 Essential tremor

CPT/HCPCS Codes:

- 61863 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; first array
- 61864 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)
- 61867 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), with use of intraoperative microelectrode recording; first array
- 61868 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), with use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)
- 61880 Revision or removal of intracranial neurostimulator electrodes (*No Auth*)
- 61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
- 61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
- 61888 Revision or removal of cranial neurostimulator pulse generator or receiver (*No Auth*)
- 95961 Functional cortical and subcortical mapping by stimulation and/or recording of electrodes on brain surface, or of depth electrodes, to provoke seizures or identify vital brain structures; initial hour of physician attendance (*No Auth*)
- 95962 Functional cortical and subcortical mapping by stimulation and/or recording of electrodes on brain surface, or of depth electrodes, to provoke seizures or identify vital brain structures; each additional hour of physician attendance (List separately in addition to code for primary procedure) (*No Auth*)
- 95978 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour (*No Auth*)

- 95979 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; each additional 30 minutes after first hour (List separately in addition to code for primary procedure) *(No Auth)*
- C1767 Generator, neurostimulator (implantable), nonrechargeable
 C1787 Patient programmer, neurostimulator
 C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system
 C1883 Adapter/ extension, pacing lead or neurostimulator lead
- L8679 Implantable neurostimulator, pulse generator, any type
 L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
 L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
 L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
 L8689 External recharging system for battery (internal) for use with implantable neurostimulator
(L codes not separately paid for Priority Medicaid)

IV. Diaphragmatic/Phrenic Pacing

ICD-10 Codes that may apply:

- G82.51 Quadriplegia, C1-C4 complete
 G82.52 Quadriplegia, C1-C4 incomplete
 Z99.11 Dependence on respirator [ventilator] status

CPT/HCPCS Codes:

- 64575 Incision for implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
 64585 Revision or removal of peripheral neurostimulator electrodes *(No Auth)*
 64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
 64595 Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver *(No Auth)*
- 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (i.e., cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming *(No Auth)*
- 95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial

nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming (*No Auth*)

- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system

- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8682 Implantable neurostimulator radiofrequency receiver
- L8683 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
- L8689 External recharging system for battery (internal) for use with implantable neurostimulator
- L8696 Antenna (external) for use with implantable diaphragmatic/phrenic nerve stimulation device, replacement, each
(L codes not separately paid for Priority Medicaid)

V. Dorsal column/spinal cord stimulators/Dorsal Root Ganglion Stimulator (DCS/SCS/DRGS)

ICD-10 Codes that may apply:

- G54.1 Lumbosacral plexus disorders
- G54.9 Nerve root and plexus disorder, unspecified
- G56.40 – G56.42 Causalgia of upper limb
- G56.80 – G56.92 Mononeuropathies of upper limb
- G57.70 – G57.92 Mononeuropathies of lower limb
- G89.0 Central pain syndrome
- G89.29 Other chronic pain
- G89.4 Chronic pain syndrome
- G90.511 – G90.29 Complex regional pain syndrome
- I20.1 – I20.9 Angina pectoris
- I25.111 - I25.119 Atherosclerotic heart disease with angina pectoris
- I25.701 – I25.799 Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris

- M51.14 – M51.17 Intervertebral disc disorder with radiculopathy
- M54.10 – M54.18 Radiculopathy
- M96.1 Postlaminectomy syndrome, not elsewhere classified

CPT/HCPCS Codes:

- 63650 Percutaneous implantation of neurostimulator electrode array, epidural
- 63655 Laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
(DCS/SCS only)

- 63661 Removal of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed *(No Auth)*
- 63662 Removal of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed *(No Auth)*
- 63663 Revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed *(No Auth)*
- 63664 Revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed *(No Auth)*
- 63685 Insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling *(DCS/SCS only)*
- 63688 Revision or removal of implanted spinal neurostimulator pulse generator or receiver *(No Auth)*

- 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (i.e., cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming *(No Auth)*
- 95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (i.e., peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming *(No Auth)*
- 95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming *(No Auth)*

- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1787 Patient programmer, neurostimulator
- C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system
- C1822 Generator, neurostimulator (implantable), high frequency, with rechargeable battery and charging system
- C1883 Adapter/ extension, pacing lead or neurostimulator lead
- C1897 Lead, neurostimulator test kit (implantable)

- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each

- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
- L8689 External recharging system for battery (internal) for use with implantable neurostimulator

(L codes not separately paid for Priority Medicaid)

VI. Electrical Stimulation of Seizures/Vagal Nerve Stimulation

ICD-10 Codes that may support medical necessity:

- G40.011 – G40.019 Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset,
- G40.111 – G40.119 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable
- G40.211 – G40.219 Generalized idiopathic epilepsy and epileptic syndromes, not intractable

CPT/HCPCS Codes:

- 61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
- 61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
- 61888 Revision or removal of cranial neurostimulator pulse generator or receiver
- 64553 Percutaneous implantation of neurostimulator electrodes; cranial nerve
- 64568 Incision for implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
- 64569 Revision or replacement of cranial nerve (eg, vagus nerve) neurostimulator electrode array, including connection to existing pulse generator
- 64570 Removal of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
- 64585 Revision or removal of peripheral neurostimulator electrodes

- 95974 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, with or without nerve interface testing, first hour **(No Auth)**
- 95975 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure) **(No Auth)**

- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1816 Receiver and/or transmitter, neurostimulator (implantable)
- C1883 Adapter/ extension, pacing lead or neurostimulator lead

- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
- L8689 External recharging system for implanted neurostimulator, replacement only
(L codes not separately paid for Priority Medicaid)

VII. Neurostimulation With Neuropace® Rns® (Responsive Neurostimulation) Device

ICD-10 Codes that may support medical necessity:

- G40.011 – G40.019 Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset,
- G40.111 – G40.119 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable
- G40.211 – G40.219 Generalized idiopathic epilepsy and epileptic syndromes, not intractable

CPT/HCPCS Codes:

- 61850 Twist drill or burr hole(s) for implantation of neurostimulator electrodes, cortical
- 61860 Craniectomy or craniotomy for implantation of neurostimulator electrodes, cerebral, cortical
- 61863 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode arraywithout use of intraoperative microelectrode recording; first array
- 61864 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array..... without use of intraoperative microelectrode recording; each additional array (List separately...)
- 61880 Revision or removal of intracranial neurostimulator electrodes **(No Auth)**
- 61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
- 61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
- 61888 Revision or removal of cranial neurostimulator pulse generator or receiver

- 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status,

electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (i.e., cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming (*No Auth*)

95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (i.e., peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming (*No Auth*)

95978 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour (*No Auth*)

95979 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; each additional 30 minutes after first hour (List separately in addition to code for primary procedure) (*No Auth*)

C1767 Generator, neurostimulator (implantable), nonrechargeable

L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension

L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension

(L codes not separately paid for Priority Medicaid)

VIII. Functional Electrical Stimulation (FES)

ICD-10 Codes that may apply:

I69.031 - I69.039 Monoplegia of upper limb

I69.131 - I69.139 Monoplegia of upper limb following nontraumatic intracerebral hemorrhage

I69.231 - I69.239 Monoplegia of upper limb following other nontraumatic intracranial hemorrhage

I69.331 - I69.339 Monoplegia of upper limb following cerebral infarction

I69.831 - I69.839 Monoplegia of upper limb following other cerebrovascular disease

I69.931 - I69.939 Monoplegia of upper limb following unspecified cerebrovascular disease

CPT/HCPCS Codes:

64550 Application of surface (transcutaneous) neurostimulator (eg, TENS unit) (*No Auth*)

A4558 Conductive gel or paste, for use with electrical device (e.g., TENS, NMES), per oz (*No Auth*)

- A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES) (*No Auth*)
- E0731 Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric) (*Covered for Medicare, Medicaid ONLY*)
- E0764 Functional neuromuscular stimulator, transcutaneous stimulation of muscles of ambulation with computer control, used for walking by spinal cord injured, entire system, after completion of training program (*Not covered for Priority Medicaid*)
- E0770 Functional electrical stimulator, transcutaneous stimulation of nerve and/or muscle groups, any type, complete system, not otherwise specified (*Not covered for Priority Medicaid*)

IX. Galvanic Stimulators

Not Covered:

- E0745 Neuromuscular stimulator, electronic shock unit
- E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified (*Not covered for Priority Medicaid*)

X. High Voltage Pulsed Electrogalvanic stimulators (HVPC)

ICD-10 Codes that may apply:

- K59.4 Anal spasm
- K62.89 Other specified diseases of anus and rectum

CPT/HCPCS Codes:

- 97014 Application of a modality to one or more areas; electrical stimulation (unattended) (*No Auth*) (*Not covered for Medicare*)
- 97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes (*No Auth*)
- E0745 Neuromuscular stimulator, electronic shock unit (*Not covered for Priority Medicaid*)
- E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified (*Not covered for Priority Medicaid*)

XI. Incontinence Stimulators

1. Urinary Incontinence

A. Electrical Muscle Stimulators (*Pelvic floor stimulator, e.g. Innova™*)

ICD-10 Codes that may apply:

- N39.3 Stress incontinence (female) (male)
- R32 Unspecified urinary incontinence
- N39.41 Urge incontinence
- N39.46 Mixed incontinence

CPT/HCPCS Codes:

- 64550 Application of surface (transcutaneous) neurostimulator (eg, TENS unit) (*No Auth*) (*Not covered for Priority Medicaid*)
- 97014 Application of a modality to one or more areas; electrical stimulation (unattended) (*No Auth*) (*Not covered for Medicare*)

E0740 Incontinence treatment system, pelvic floor stimulator, monitor, sensor and/or trainer *(Not covered for Priority Medicaid)*

B. Sacral Nerve Stimulator

ICD-10 Codes that may apply:

N39.3 Stress incontinence (female) (male)
 N39.41 Urge incontinence
 N39.46 Mixed incontinence
 R33.8 Other retention of urine
 R33.9 Retention of urine, unspecified
 R39.14 Feeling of incomplete bladder emptying

CPT/HCPCS Codes:

64561 Percutaneous implantation of neurostimulator electrodes; sacral nerve. (transforaminal placement).
 64581 Incision for implantation of neurostimulator electrodes; sacral nerve; (transforaminal placement).
 64585 Revision or removal of peripheral neurostimulator electrodes (**No Auth**)
 64590 Incision and subcutaneous placement of peripheral neurostimulator pulse generator or receiver, direct or inductive coupling
 64595 Revision or removal of peripheral neurostimulator pulse generator or receiver (**No Auth**)

 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (i.e., cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming (**No Auth**)
 95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (i.e., peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or (**No Auth**)
 95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming (**No Auth**)

 A4290 Sacral nerve stimulation test lead, each (**No Auth**)
(Not covered for Priority Medicaid)

- C1767 Generator, neurostimulator (implantable), nonrechargeable
 - C1778 Lead, neurostimulator (implantable)
 - C1897 Lead, neurostimulator test kit (implantable)

 - L8679 Implantable neurostimulator, pulse generator, any type
 - L8680 Implantable neurostimulator electrode, each
 - L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
 - L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- (L codes not separately paid for Priority Medicaid)*

C. Percutaneous Tibial Nerve Stimulation (PTNS)

This procedure covered only for these diagnoses when criteria above are met.

ICD-10 Codes that support medical necessity:

- N32.81 Overactive bladder
- N39.3 Stress incontinence (female) (male)
- N39.41 Urge incontinence
- N39.46 Mixed incontinence
- N39.498 Other specified urinary incontinence
- R32 Unspecified urinary incontinence
- R35.0 Frequency of micturition
- R39.15 Urgency of urination

CPT/HCPCS Codes:

- 64566 Posterior tibial neurostimulation, percutaneous needle electrode, single treatment, includes programming *(No Auth)*

2. Fecal Incontinence Stimulators

ICD-10 Codes that may apply: R15.9 Full incontinence of feces

CPT/HCPCS Codes:

- 64561 Percutaneous implantation of neurostimulator electrodes; sacral nerve (transforaminal placement)
- 64581 Incision for implantation of neurostimulator electrodes; sacral nerve; (transforaminal placement).
- 64585 Revision or removal of peripheral neurostimulator electrodes *(No Auth)*
- 64590 Incision and subcutaneous placement of peripheral neurostimulator pulse generator or receiver, direct or inductive coupling
- 64595 Revision or removal of peripheral neurostimulator pulse generator or receiver *(No Auth)*

- 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (i.e., cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming *(No Auth)*

- 95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (i.e., peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming *(No Auth)*
- 95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour *(No Auth)*
- A4290 Sacral nerve stimulation test lead, each *(No Auth)*
- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1883 Adapter/ extension, pacing lead or neurostimulator lead
- C1897 Lead, neurostimulator test kit (implantable)
- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
(L codes not separately paid for Priority Medicaid)

XII. Gastric Stimulators

ICD-10 Codes that may apply:

- E08.43 Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy
- E09.43 Drug or chemical induced diabetes mellitus with neurological complications with diabetic autonomic (poly)neuropathy
- E10.43 Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy
- E11.43 Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
- E13.43 Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
- K31.84 Gastroparesis

CPT/HCPCS Codes:

- 43647 Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum
- 43648 Laparoscopy, surgical; revision or removal of gastric neurostimulator electrodes, antrum *(No Auth)*

- 43881 Implantation or replacement of gastric neurostimulator electrodes, antrum, open
- 43882 Revision or removal of gastric neurostimulator electrodes, antrum, open *(No Auth)*
- 64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
- 64595 Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver *(No Auth)*

- 95980 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric *(No Auth)*
- 95981 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric *(No Auth)*
- 95982 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric *(No Auth)*

- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
(L codes not separately paid for Priority Medicaid)

XIII. Interferential Stimulators

Not Covered:

- E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified
- S8130 Interferential current stimulator, 2 channel
- S8131 Interferential current stimulator, 4 channel

XIV. Neuromuscular Electrical Stimulation

ICD-10 Codes that may apply:

- M62.50 – M62.59 Muscular wasting and disuse atrophy, not elsewhere classified

CPT/HCPCS Codes:

- 64550 Application of surface (transcutaneous) neurostimulator (eg, TENS unit) *(No Auth)*
- 64565 Percutaneous implantation of neurostimulator electrodes; neuromuscular *(code terms 1/1/2018)*
- 64580 Incision for implantation of neurostimulator electrodes; neuromuscular

- E0745 Neuromuscular stimulator, electronic shock unit *(Not covered for Priority Medicaid)*

- E0764 Functional neuromuscular stimulator, transcutaneous stimulation of muscles of ambulation with computer control, used for walking by spinal cord injured, entire system, after completion of training program *(Not covered for Priority Medicaid)*

XV. Percutaneous Electrical Nerve Stimulation (PENS) and Percutaneous Neuromodulation Therapy (PNT)

Not Covered:

- 97813 Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
- 97814 Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
- 64999 Unlisted procedure, nervous system *(Explanatory notes must accompany claims billed with unlisted codes.)*

XVI. Peripherally Implanted Nerve Stimulator

ICD-10 Codes that may apply:

- G54.8 Other nerve root and plexus disorders
- G54.9 Nerve root and plexus disorder, unspecified
- G55 Nerve root and plexus compressions in diseases classified elsewhere
- G56.40 - G56.42 Causalgia of upper limb
- G56.80 - G56.82 Other specified mononeuropathies
- G57.70 - G57.72 Causalgia of lower limb
- G57.80 - G57.82 Other specified mononeuropathies
- G58.0 Intercostal neuropathy
- G58.7 Mononeuritis multiplex
- G58.8 Other specified mononeuropathies
- G89.0 Central pain syndrome
- G89.21 Chronic pain due to trauma
- G89.22 Chronic post-thoracotomy pain
- G89.28 Other chronic postprocedural pain
- G89.29 Other chronic pain
- G89.4 Chronic pain syndrome
- G90.50 - G90.59 Complex regional pain syndrome I
- M53.80 Other specified dorsopathies, site unspecified
- M53.84 Other specified dorsopathies, thoracic region
- M53.85 Other specified dorsopathies, thoracolumbar region
- M53.9 Dorsopathy, unspecified
- M54.5 Low back pain
- M54.89 Other dorsalgia
- M54.9 Dorsalgia, unspecified

CPT/HCPCS Codes:

- 64555 Percutaneous implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
- 64575 Incision for implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)

- 64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
- 64595 Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver (*No Auth*)
- 95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming (*No Auth*)
- 95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming (*No Auth*)
- 95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour (*No Auth*)
- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1787 Patient programmer, neurostimulator
- C1816 Receiver and/or transmitter, neurostimulator (implantable)
- C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system
- C1822 Generator, neurostimulator (implantable), high frequency, with rechargeable battery and charging system
- C1883 Adapter/ extension, pacing lead or neurostimulator lead
- C1897 Lead, neurostimulator test kit (implantable)
- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8689 External recharging system for battery (internal) for use with implantable neurostimulator
- L8695 External recharging system for battery (external) for use with implantable neurostimulator, replacement only
(*L codes not separately paid for Priority Medicaid*)

**XVII. Pulsed Electrical Stimulation for treatment of osteoarthritis of the knee
(BioniCare®)**

Not Covered:

E0762 Transcutaneous electrical joint stimulation device system, includes all accessories

XVIII. Surface Electrical Muscle Stimulation

ICD-10 Codes that may apply:

M41.00 – M41.9 Scoliosis

CPT/HCPCS Codes:

E0744 Neuromuscular stimulator for scoliosis *(Not covered for Priority Medicaid)*

XIX. Transcutaneous Electrical Stimulator (TENS)

ICD-10 Codes that may apply:

♦ *No prior auth required for this indication*

No prior auth for first 2 months trial for any indication for commercial and Medicaid.

Prior auth required for Medicare for all indications from 1st months rental

B02.0 Zoster encephalitis

B02.23 Postherpetic polyneuropathy

B02.29 Other postherpetic nervous system involvement

E08.40 – E08.42 Diabetes mellitus due to underlying condition with neurological complications

E09.40 – E09.42 Drug or chemical induced diabetes mellitus with neurological complications

E10.40 – E10.49 Type 1 diabetes mellitus with neurological complications

E10.610 Type 1 diabetes mellitus with diabetic neuropathic arthropathy

E10.65 Type 1 diabetes mellitus with hyperglycemia

E11.40 - E11.49 Type 2 diabetes mellitus with neurological complication

E11.610 Type 2 diabetes mellitus with diabetic neuropathic arthropathy

E11.65 Type 2 diabetes mellitus with hyperglycemia

E13.40 Other specified diabetes mellitus with diabetic neuropathy, unspecified

E13.41 - E13.49 Other specified diabetes mellitus with neurological complication

G54.8 Other nerve root and plexus disorders

G55 Nerve root and plexus compressions in diseases classified elsewhere

G57.70 - G57.72 Causalgia of lower limb

G57.80 - G57.82 Other specified mononeuropathies of left lower limb

G57.90 - G57.92 Unspecified mononeuropathy of lower limb

G58.8 Other specified mononeuropathies

G58.9 Mononeuropathy, unspecified

G59 Mononeuropathy in diseases classified elsewhere

G89.0 Central pain syndrome

G89.21 – G89.29 Chronic pain

G89.4 Chronic pain syndrome

G90.50 - G90.59 Complex regional pain syndrome I

G99.0 Autonomic neuropathy in diseases classified elsewhere

M43.20 - M43.28 Fusion of spine

M43.8x9	Other specified deforming dorsopathies, site unspecified
M51.36♦	Other intervertebral disc degeneration, lumbar region
M51.37♦	Other intervertebral disc degeneration, lumbosacral region
M53.2x7♦	Spinal instabilities, lumbosacral region
M53.2x8♦	Spinal instabilities, sacral and sacrococcygeal region
M53.3♦	Sacrococcygeal disorders, not elsewhere classified
M53.80	Other specified dorsopathies, site unspecified
M53.84	Other specified dorsopathies, thoracic region
M53.85	Other specified dorsopathies, thoracolumbar region
M53.86♦	Other specified dorsopathies, lumbar region
M53.87♦	Other specified dorsopathies, lumbosacral region
M53.88♦	Other specified dorsopathies, sacral and sacrococcygeal region
M53.9	Dorsopathy, unspecified
M54.5♦	Low back pain
M54.89♦	Other dorsalgia
M54.9♦	Dorsalgia, unspecified

CPT/HCPCS Codes:

64550	Application of surface (transcutaneous) neurostimulator (eg, TENS unit) <i>(No Auth) (Not covered for Priority Medicaid)</i>
97014	Application of a modality to one or more areas; electrical stimulation (unattended) <i>(No Auth) (Not covered for Medicare)</i>
G0283	Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care <i>(Medicare only) (No Auth)</i>
A4558	Conductive gel or paste, for use with electrical device (e.g., TENS, NMES), per oz <i>(No Auth)</i>
A4595	Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES) <i>(No Auth)</i>
A4630	Replacement batteries, medically necessary, transcutaneous electrical stimulator, owned by patient <i>(No Auth)</i>
E0720	Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
E0730	Transcutaneous electrical nerve stimulation (TENS) device, four or more leads, for multiple nerve stimulation
E0731	Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric) <i>(Covered for Medicare, Medicaid ONLY)</i>

Not covered

0278T	Transcutaneous electrical modulation pain reprocessing (eg, scrambler therapy), each treatment session (includes placement of electrodes)
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XX. Electric Tumor Treatment Fields (ETTF) Devices

ICD-10 Codes that may apply:

C71.0-C71.9	Malignant neoplasm of brain
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CPT/HCPCS Codes:

- E0766 Electrical stimulation device used for cancer treatment, includes all accessories, any type *(Not covered for Priority Medicaid or Medicare)*
- A4555 Electrode/transducer for use with electrical stimulation device used for cancer treatment, replacement only *(Not covered for Priority Medicaid or Medicare)*
- 77299 Unlisted procedure, therapeutic radiology clinical treatment planning *(Explanatory notes must accompany claim)*
Not separately payable when billed for use of NovoTAL™ System for treatment planning

XXI. Non-Covered Electrical Stimulation Therapies

1. Cranial electrical stimulation

CPT/HCPCS Codes:

- E0720 Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
- E1399 Durable medical equipment, miscellaneous *(Explanatory notes must accompany claims billed with unlisted codes.)*

2. Electric reflex salivary stimulation

CPT/HCPCS Codes:

- E0755 Electronic salivary reflex stimulator (intraoral/noninvasive)

3. Neuromuscular electrical stimulation for ANY of the following conditions:

- a. Spinal cord injury
- b. Stroke (CVA)
- c. Cerebral palsy
- d. Other upper motor neuron disorders
- e. For general muscle strengthening in healthy individuals
- f. For cardiac conditioning
- g. For the treatment of denervated muscles

For codes see section XIV

4. Transurethral electrical stimulation for the management of neurogenic bladder dysfunction

The following codes billed for transurethral electrical stimulation are not covered

CPT/HCPCS Codes:

- 53899 Unlisted procedure, urinary system
- C1778 Lead, neurostimulator (implantable)
- C1816 Receiver and/or transmitter, neurostimulator (implantable)
- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each

5. High frequency pulsed electromagnetic fields (i.e., Diapulse and sofPulse device) for the treatment of wounds in the home setting or acute postoperative pain and edema
The following codes billed for this treatment are not covered

CPT/HCPCS Codes:

- 97014 Application of a modality to one or more areas; electrical stimulation (unattended)
- G0329 Electromagnetic therapy, to one or more areas for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care as part of a therapy plan of care
- E0761 Nonthermal pulsed high frequency radiowaves, high peak power electromagnetic energy treatment device

- 6. Interferential current therapy
For codes see section XIII.

- 7. Electrical stimulation for the treatment of Bell's palsy

ICD-10 Codes – not covered:

- G51.0 Bell's palsy

CPT/HCPCS Codes:

- 97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes

- 8. Stellate ganglion blockade using TENS
For codes see section XIX

- 9. Dorsal column stimulation for the management of chronic malignant pain
For codes see section V.

- 10. H-WAVE ® type stimulators for ANY of the following indications:

- a. To reduce pain
- b. To reduce edema
- c. To accelerate healing
- d. For treatment of chronic pain due to ischemia

CPT/HCPCS Codes:

The following codes billed for H-Wave® treatment are not covered

- 97014 Application of a modality to one or more areas; electrical stimulation (unattended)

- E0745 Neuromuscular stimulator, electronic shock unit

- 11. Functional electrical stimulation for electrical stimulation of muscles in patients with spinal cord injuries and other neuromuscular conditions

CPT/HCPCS Codes:

For codes see section VIII

- 12. Intramuscular stimulation (IMS) for the management of soft-tissue or neuropathic pain.

CPT/HCPCS Codes:

- 97813 Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
- 97814 Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

13. Galvanic stimulation therapy
For codes, see section IX

14. Electrical stimulation for wound healing or skin ulcers in the home setting
For codes, see section II.

15. Percutaneous Electrical Stimulation (PENS)
For codes, see section XV

16. Percutaneous Neuromodulation Therapy (PNT)
For codes, see section XV

17. Transcend® Implantable Gastric Stimulator for treatment of obesity
The following codes billed for gastric stimulation for obesity treatment are not covered.

CPT/HCPCS Codes:

- 43647 Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum
- 43648 Laparoscopy, surgical; revision or removal of gastric neurostimulator electrodes, antrum
- 43881 Implantation or replacement of gastric neurostimulator electrodes, antrum, open
- 43882 Revision or removal of gastric neurostimulator electrodes, antrum, open
- 64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
- 64595 Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver
- 95980 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; intraoperative, with programming
- 95981 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; subsequent, without reprogramming
- 95982 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; subsequent, with reprogramming
- L8679 Implantable neurostimulator, pulse generator, any type

- L8680 Implantable neurostimulator electrode, each
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension

18. Synergy® Neurostimulator (Medtronic) for intractable migraine pain (Occipital nerve stimulation)

The following codes billed for Synergy® are not covered.

CPT/HCPCS Codes:

- 61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
- 61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
- 64553 Percutaneous implantation of neurostimulator electrodes; cranial nerve
- 64555 Percutaneous implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
- 64568 Incision for implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
- 64569 Revision or replacement of cranial nerve (eg, vagus nerve) neurostimulator electrode array, including connection to existing pulse generator
- 64575 Incision for implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
- 64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling

- L8679 Implantable neurostimulator, pulse generator, any type
- L8680 Implantable neurostimulator electrode, each
- L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
- L8682 Implantable neurostimulator radiofrequency receiver
- L8683 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
- L8684 Radiofrequency transmitter (external) for use with implantable sacral root neurostimulator receiver for bowel and bladder management, replacement
- L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
- L8689 External recharging system for battery (internal) for use with implantable neurostimulator

19. Vagal nerve stimulators for other indications. See Section VI.

20. Microcurrent electrical nerve stimulation (MENS), including frequency-specific microcurrent (FSM).

The following codes billed for Microcurrent stimulation are not covered.

CPT/HCPCS Codes:

- 64550 Application of surface (transcutaneous) neurostimulator (eg, TENS unit)
- 97014 Application of a modality to one or more areas; electrical stimulation (unattended)
- 97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes

- E0720 Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
- E0730 Transcutaneous electrical nerve stimulation (TENS) device, four or more leads, for multiple nerve stimulation
- E0731 Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric)

21. Motor cortex stimulation for neuropathic facial pain –

The following codes billed for motor cortex stimulation are not covered.

CPT/HCPCS Codes:

- 61850 Twist drill or burr hole(s) for implantation of neurostimulator electrodes, cortical
- 61860 Craniectomy or craniotomy for implantation of neurostimulator electrodes, cerebral, cortical
- 61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
- 61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays

- C1767 Generator, neurostimulator (implantable), nonrechargeable
- C1778 Lead, neurostimulator (implantable)
- C1816 Receiver and/or transmitter, neurostimulator (implantable)
- C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system

- L8680 Implantable neurostimulator electrode, each
- L8682 Implantable neurostimulator radiofrequency receiver
- L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
- L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
- L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
- L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension

L8689 External recharging system for battery (internal) for use with implantable neurostimulator

22. Devices (e.g. NovoTTF-100A System, Novocure, Portsmouth, NH) to generate electric tumor treatment fields (ETTF) for the treatment of malignant tumors and all other indications, unless criteria in Section XX are met. (*See Section XX*)
23. Transcranial magnetic stimulation (e.g. Cerena) for treatment of migraine headaches – not covered indication. *Authorization required* for use in depression - see *Transcranial Magnetic Stimulation for Depression medical policy #91563*.
 - 90867 Therapeutic repetitive transcranial magnetic stimulation treatment; planning
 - 90868 Therapeutic repetitive transcranial magnetic stimulation treatment; delivery and management, per session
 - 90869 Therapeutic repetitive transcranial magnetic stimulation (TMS) treatment; subsequent motor threshold re-determination with delivery and management
24. Carotid sinus/baroreceptor stimulators (e.g., the Barostim neo™ System, and the Rheos Baroreflex Hypertension Therapy System) for the treatment of *hypertension and for all other indications (e.g., heart failure)*.
 - 0266T Implantation or replacement of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)
 - 0267T Implantation or replacement of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning, when performed)
 - 0268T Implantation or replacement of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning, when performed)
 - 0269T Revision or removal of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)
 - 0270T Revision or removal of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning, when performed)
 - 0271T Revision or removal of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning, when performed)
 - 0272T Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg, battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day);
 - 0273T Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg, battery status, lead impedance,

pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day); with programming

25. Vagal Blocking for Obesity Control (VBLOC, Maestro Rechargeable System)\
- 0312T Vagus nerve blocking therapy (morbid obesity); laparoscopic implantation of neurostimulator electrode array, anterior and posterior vagal trunks adjacent to esophagogastric junction (EGJ), with implantation of pulse generator, includes programming
 - 0313T Vagus nerve blocking therapy (morbid obesity); laparoscopic revision or replacement of vagal trunk neurostimulator electrode array, including connection to existing pulse generator
 - 0314T Vagus nerve blocking therapy (morbid obesity); laparoscopic removal of vagal trunk neurostimulator electrode array and pulse generator
 - 0315T Vagus nerve blocking therapy (morbid obesity); removal of pulse generator
 - 0316T Vagus nerve blocking therapy (morbid obesity); replacement of pulse generator
 - 0317T Vagus nerve blocking therapy (morbid obesity); neurostimulator pulse generator electronic analysis, includes reprogramming when performed
26. Calmare Pain Therapy (Calmare Therapeutics Inc.)
- 0278T Transcutaneous electrical modulation pain reprocessing (eg, scrambler therapy), each treatment session (includes placement of electrodes)
27. Hypoglossal neurostimulation for obstructive sleep apnea (e.g. Inspire II, aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System).
- 0466T Insertion of chest wall respiratory sensor electrode or electrode array, including connection to pulse generator (List separately in addition to code for primary procedure)
 - 0467T Revision or replacement of chest wall respiratory sensor electrode or electrode array, including connection to existing pulse generator
 - 0468T Removal of chest wall respiratory sensor electrode or electrode array
 - C1767 Generator, neurostimulator (implantable), nonrechargeable
 - C1778 Lead, neurostimulator (implantable)
 - C1787 Patient programmer, neurostimulator
 - C1883 Adapter/ extension, pacing lead or neurostimulator lead
28. ARP (Accelerated Recovery Performance) wave therapy/ARPwave – *the following codes billed for ARP treatment are not covered*
- CPT/HCPCS Codes:**
- 97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes
 - 97110 Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility
 - 97112 Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
 - 97530 Therapeutic activities, direct (one-on-one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes

29. All auricular electroacupuncture devices (e.g. P-STIM™ device,) *the following codes for P-STIM are not covered*

CPT/HCPCS Codes:

- 97813 Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
- 97814 Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
- 64999 Unlisted procedure, nervous system
- E1399 Durable medical equipment, miscellaneous

30. *remedē® System (Respicardia Inc.) phrenic nerve stimulator for central sleep apnea – the following codes for this system are not covered*

CPT/HCPCS Codes:

- 0424T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; complete system (transvenous placement of right or left stimulation lead, sensing lead, implantable pulse generator)
- 0425T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0426T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0427T Insertion or replacement of neurostimulator system for treatment of central sleep apnea; pulse generator only
- 0428T Removal of neurostimulator system for treatment of central sleep apnea; pulse generator only
- 0429T Removal of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0430T Removal of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0431T Removal and replacement of neurostimulator system for treatment of central sleep apnea, pulse generator only
- 0432T Repositioning of neurostimulator system for treatment of central sleep apnea; stimulation lead only
- 0433T Repositioning of neurostimulator system for treatment of central sleep apnea; sensing lead only
- 0434T Interrogation device evaluation implanted neurostimulator pulse generator system for central sleep apnea
- 0435T Programming device evaluation of implanted neurostimulator pulse generator system for central sleep apnea; single session
- 0436T Programming device evaluation of implanted neurostimulator pulse generator system for central sleep apnea; during sleep study

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