Nerve Conduction Studies and Electromyography

FIRST COAST SERVICE OPTIONS
MAC - PART A/B
LOCAL COVERAGE DETERMINATION

LCD Database ID Number
L34859

Contractor Name
First Coast Service Options, Inc.

Contractor Number
09101 - Florida
09201 – PR/USVI
09102 – Florida
09202 – Puerto Rico
09302 – Virgin Islands

Contractor Type
MAC – Part A and B

LCD Title
Nerve Conduction Studies and Electromyography

AMA CPT Copyright Statement
CPT only copyright 2002-2017 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association. Applicable FARS/DFARS Apply to Government Use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein. The Code on Dental Procedures and Nomenclature (Code) is published in Current Dental Terminology (CDT). Copyright (c) American Dental Association. All rights reserved. CDT and CDT-2010 are trademarks of the American Dental Association.

CMS National Coverage Policy
Language quoted from CMS National Coverage Determination (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, italicized text represents quotation from one or more of the following CMS sources:

Title XVIII of the Social Security Act, §1862(a)(1)(A) states that no Medicare payment shall be made for items and services which are not reasonable and necessary for the diagnosis or treatment of illness or injury
Nerve Conduction Studies and Electromyography

42 Code of Federal Regulations (CFR) section 410.32 (a) and 410.32(d)(3) indicates diagnostic tests are payable only when the physician who is treating the beneficiary for a specific medical problem uses the results in the management of the beneficiary’s specific medical problem.

Federal Register:
Federal Register Vol. 62, 59047, Supervision of Diagnostic Tests, describes the degree of physician supervision required for diagnostic tests.

CMS Publications:

CMS Publication 100-03, Medicare National Coverage Determinations (NCD) Manual, Chapter 1, Part 2: Sensory Nerve Conduction Threshold Tests (sNCTs)

Program Memorandum Carriers Transmittal B-01-28 Change Request 850, describes tests that may be performed by PTs with ABPTS certification


Transmittal 2663 Change Request 8169 April Update to the CY 2013 Medicare Physician Fee Schedule Database (MPFSDB)

CMS Internet-Only Manual (IOM), Pub 100-08, Medicare Program Integrity Manual, Chapter 13, Local Coverage Determinations

Primary Geographic Jurisdiction

Florida
Puerto Rico/Virgin Islands

Oversight Region

Region I

Original Determination Effective Date

10/01/2015

Original Determination Ending Date

N/A

Revision Effective Date

10/01/2017

Revision Ending Date

09/30/2017

Indications and Limitations of Coverage and/or Medical Necessity

The Centers for Medicare & Medicaid Services (CMS) Online Manual System, Publication 100-08, Medicare Program Integrity Manual, Chapter 13, Section 13.5.1 outlines that “reasonable and necessary” services are “ordered and/or furnished by qualified personnel.” Services will be considered medically reasonable and necessary only if performed by appropriately trained providers. It is expected that healthcare professionals who perform electrodiagnostic (ED) testing will be appropriately trained and/or credentialed, either by a formal residency/fellowship program, certification by a nationally recognized organization, or by an accredited post-
Nerve Conduction Studies and Electromyography

graduate training course covering anatomy, neurophysiology and forms of electrodiagnostics (including both NCS and EMG) acceptable to this Contractor in order to provide the proper testing and assessment of the patient's condition and appropriate safety measures. It would be highly unlikely that this training and/or credentialing is possessed by providers other than Neurologists, or Physical Medicine & Rehabilitation physicians.

Electrodiagnostic testing builds on the neurologic portion of the physical examination. Both require a detailed knowledge of the patient and his/her disease. Training in the performance of electrodiagnostic procedures in isolation of knowledge about clinical diagnostic and management aspects of neuromuscular diseases is not adequate for proper performance of an electrodiagnostic evaluation and correct interpretation of electrodiagnostic test results. Without awareness of the patterns of abnormality expected in different diseases and knowledge that the results of nerve conduction studies (NCS) and electromyography (EMG) may be similar in different diseases, diagnosis solely by EMG-NCS findings is inadequate and potentially detrimental to the patient.

Guidelines for proper qualifications of health care professionals performing electrodiagnostic evaluations have been developed and published by the American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM) and other medical organizations, including the AMA, the American Academy of Neurology, the American Academy of Physical Medicine and Rehabilitation, American Neurological Association, the American Board of Physical Therapy Specialties (ABPTS) in Clinical Electrophysiology, and the Department of Veterans Affairs.

Both EMG and NCS are usually required for a clinical diagnosis of peripheral nervous system disorders. Performance of one type of testing does not eliminate the need for the other. The intensity and extent of testing with EMG and NCS are matters of clinical judgment developed after the initial pre-test evaluation, and later modified during the testing procedure.

Decisions to continue, modify or conclude a testing rely on knowledge of anatomy, physiology and neuromuscular diseases. Ongoing real-time assessment of data is required during the clinical diagnostic evaluation and especially during EMG examination.

NCS are used to measure action potentials resulting from peripheral nerve stimulation which are recordable over the nerve or from an innervated muscle. With this technique, responses are measured between two sites of stimulation or between a stimulus and a recording site.

NCS are of two general types: sensory and motor. Either surface or needle electrodes can be used to stimulate the nerve or record the response. Axonal damage or dysfunction generally results in loss of nerve or muscle potential response amplitude; whereas, demyelination leads to prolongation of conduction time and slowing of conduction velocity.

Obtaining and interpreting NCS results requires extensive interaction between the performing, qualified, health care professional and patient, and is most effective when both obtaining raw data and interpretation are performed concurrently on a real-time basis.

Results of the NCS reflect on the integrity and function of:
(I) the myelin sheath (Schwann cell derived insulation covering an axon), and
(II) the axon (an extension of neuronal cell body) of a nerve.
Interruption of axon and dysfunction of myelin will both affect NCS results.

It is also often valuable to test conduction status in proximal segments of peripheral nerves. This assessment can be accomplished by H-reflex, F-wave and blink reflex testing. These proximal segments include the first several centimeters of a compound nerve emerging from the spinal cord or brainstem. H-reflex, F-waves and Blink reflex testing accomplish this task better than distal NCS.

EMG is the study and recording of intrinsic electrical properties of skeletal muscles. This is carried out with a needle electrode. Generally, the needles are one of two types: monopolar or concentric. EMG is undertaken together with NCS. Unlike NCS, however, EMG testing relies on both auditory and visual feedback to the electromyographer. This testing is invasive in that it requires needle electrode insertion and adjustment at multiple sites which are at times, anatomically critical. As in NCS, during EMG studies, the electromyographer depends on ongoing real-time interpretation of clinical diagnoses being evaluated to decide whether to continue, modify, or conclude a test. This process requires knowledge of anatomy, physiology, and neuromuscular diseases.

EMG results reflect not only the integrity of the functioning connection between a nerve and its innervated muscle but also the integrity of the muscle itself. The axon innervating a muscle is primarily responsible for the muscle's volitional contraction, survival, and trophic functions. Thus, interruption of the axon will alter the EMG. A few prime examples of conditions in which EMG is potentially helpful are disc disease producing spinal nerve dysfunction, advanced nerve compression in peripheral lesions, Amyotrophic Lateral Sclerosis (ALS), and polyneuropathy. After an acute neurogenic lesion, EMG changes may not appear for
several days to weeks in the innervated muscles. Primary muscle disease such as polymyositis will also alter a normal EMG pattern. Myotonic disorders may show a pattern of spontaneous repetitive discharges on needle exploration.

In summary, axonal and muscle involvement are most sensitively detected by EMG and myelin and axonal involvement are best detected by NCS.

Physical Therapists Performing EMGs

Program Memorandum Transmittal B-01-28/Change Request 850 sets forth revised levels of physician supervision required for diagnostic tests payable under the Medicare Physician Fee Schedule. Effective July 1, 2001, certain codes in the range of CPT 95860-95937 were assigned new supervision levels (21, 22, 6a, 66, 77 or 7a). This implementation date would make it possible for physical therapists to acquire the certification required to perform these services without supervision. A physical therapist who is presently certified by the American Board of Physical Therapy Specialties can perform procedures assigned level of 21, 22, 6a, 77, or 7a without supervision. These numeric levels assigned to the CPT codes are listed in the Medicare Physician Fee Schedule Database (MFSDB). Physical therapists who do not possess the ABPTS (American Board of Physical Therapy Specialties) certification by July 1, 2001, may continue to furnish those tests that require the certification if they have been furnishing such diagnostic tests prior to May 1, 2001.

Payment will be based on the Medicare Physician Fee Schedule level of supervision designation. Nerve conduction code 95905 does not have one of the above designations and is therefore not allowed by Physical Therapists.

Nerve conduction codes 95907-95913 had their Physician Supervision of Diagnostic Procedures Indicators adjusted to 7A effective 01/01/2013 (CR 8169). Therefore, if authorized by state law, Physical Therapists are allowed the technical portion and professional component of the test according to the description of 7A which is included in the Billing and Coding Guideline attached.

The TC component of the Neuromuscular junction testing code 95937 had its Physician Supervision of Diagnostic Procedures Indicator changed to “7A” This change is effective January 1, 2013.

Needle electromyographic (EMG) codes 95860-95872 and 95885-95887 have the designation of 6A for the technical portion of the test. Therefore, if authorized by state law, Physical Therapists are allowed the technical portion of the test according to the description of 6A which is included in the Billing and Coding Guideline attached.

Nerve Conduction Studies

The dichotomy into axonal and demyelinating neuropathies provides a practical means of correlating electrical abnormalities with major pathophysiologic changes in the nerve. Electrical studies can be of help in localization of an abnormality, and in distinguishing one variety of neuropathy from another: for example, diffuse vs. multifocal; axonal vs. demyelinating. Such distinction has diagnostic value. Specific classification of nerve injuries into neuropraxia and axonotmesis can be made on the basis of conduction studies and electromyography. Such classification has a bearing on prognosis and treatment.

1. Focal neuropathies or compressive lesions such as carpal tunnel syndrome, ulnar neuropathies or root lesions, for localization.
2. Traumatic nerve lesions, for diagnosis and prognosis.
3. Diagnosis or confirmation of suspected generalized neuropathies, such as diabetic, uremic, metabolic or immune.
4. Repetitive nerve stimulation in diagnosis of neuromuscular junction disorders such as myasthenia gravis, myasthenic syndrome.
5. There may be other instances, not detailed here, where NCS may be of use. Not all possible or potential indications are addressed here.

The broad diagnostic scope of NCS is recognizable by the foregoing description. There may be instances where questions about an indication, or need for a study, will arise. The clinical history and examination, carried out before the study, must always describe and document clearly and comprehensibly the need for the planned test. A "rule-out" diagnosis is typically not acceptable, and instead it is required that the medical record establishes the necessity of the testing by making clear how the test results will alter management of the specific patient. The Contractor is cognizant of the fact that patients are not always referred with a definite diagnosis in mind. Often, pain, paresthesia, or weakness in an extremity is the reason for an NCS or EMG. These common symptoms result not only from axonal and myelin dysfunction but also from systemic, non-neurological illnesses. EMG and NCV may help in making this distinction. Therefore, symptom-based diagnoses such as "pain in limb" weakness, disturbance in skin sensation or "paresthesia" are acceptable provided the clinical assessment unequivocally supports the need for a study. To cite but one example of many, an EMG or
Nerve Conduction Studies and Electromyography

NCS is irrelevant as a first order diagnostic test for limb pain resulting from immediate antecedent trauma or acute bone injury.

Both EMGs and NCSs are required for a clinical diagnosis of peripheral nervous system disorders. EMG results reflect on the integrity of the functioning connection between a nerve and its innervated muscle and also on the integrity of a muscle itself. Performance of one may not eliminate the need for the other. The intensity and extent of testing with EMG and NCS are matters of clinical judgment developed after the initial pre-test evaluation, and later modified during the testing procedure. Decisions to continue, modify or conclude a test also rely on a knowledge base of anatomy, physiology and neuromuscular diseases. There is a requirement for ongoing real-time clinical diagnostic evaluation, especially during EMG examination. Also, EMG examination is invasive. Needle placement in the exact muscle of interest is essential. It requires needle exploration near vital structures as the pleura, femoral neurovascular bundle, peritoneum, intraspinal spaces, carotid artery, orbit and brachial plexus. Risk of infection from AIDS, Hepatitis B-E, Creutzfeldt-Jakob encephalopathy, and hemorrhage from anticoagulation can be managed by proper techniques.

The electrodiagnostic evaluation is actually an extension of the neurologic portion of the physical examination. Both require a detailed knowledge of a patient and his/her disease. Training in the performance of electrodiagnostic procedures, in isolation without awareness and ability to diagnose and manage neuromuscular diseases, is often inadequate for electrodiagnostic consultation. Recognition and experience in the management of disparate diseases that produce common electrodiagnostic findings may be necessary. For example, EMG-NCS findings may overlap in the following pairs of disorders: inflammatory myopathies and ALS, ALS and multi-level radiculopathies, myotonia of channelopathies (periodic paralyses) and myotonic dystrophies, focal neuropathies as Carpal Tunnel Syndrome and proximal plexopathies. Other instances where knowledge of disease behavior is crucial are Chronic Inflammatory Demyelinating Neuropathy (CIDP) and Multifocal Motor Neuropathy. These entities display electrodiagnostic features that resemble generalized polyneuropathies. Neuromuscular transmission disorders require separation based on clinical presentation and electrical features. Treatment will depend on differentiating among them. Without awareness of the disease spectrum, diagnosis solely by EMG-NCS findings may be wrong, detrimental to the patient or both.

The following definitions are from the American Association of Neuromuscular & Electrodagnostic Medicine Recommended Policy for Electrodiagnostic Medicine (page 2)


"The stimulation of nerves is similar across all NCSs; the characteristics of motor, sensory, and mixed NCSs are different and are discussed separately below. In each case, an appropriate nerve is stimulated and recording is made either from the appropriate nerves or from muscle supplied by the motor nerve.

a. Motor. Motor NCSs are performed by applying electrical stimulation at various points along the course of a motor nerve while recording the electrical response from an appropriate muscle. Response parameters include amplitude, latency, configuration, and motor conduction velocity.

b. Sensory. Sensory NCSs are performed by applying electrical stimulation near a nerve and recording the response from a distant site along the nerve. Response parameters include amplitude, latency and configuration.

c. Mixed NCSs are performed by applying electrical stimulation near a nerve containing both motor and sensory fibers (a mixed nerve) and recording from a different location along that nerve that also contains both motor and sensory nerve fibers. Response parameters include amplitude, latency, configuration, and motor conduction velocity."

CPT code 95905 -Nerve conduction studies performed using automated devices (for example devices such as NC-stat® System) cannot support testing of other locations and other nerves as needed depending on the concurrent results of testing and must not be billed with the current CPT codes.

When the beneficiary has a high pre-test or a priori probability for having the diagnosis of Carpal Tunnel Syndrome, the NC-stat® System (alone) will be allowed, one service per arm, using CPT code 95905. The diagnosis code G56.00 - G56.03 should be used. All other diagnosis codes will be denied as not medically necessary.

Nerve conduction studies performed independent of needle electromyography (EMG) may only provide a portion of the information needed to diagnose muscle, nerve root, and most nerve disorders. When the nerve conduction study (NCS) is used on its own without integrating needle EMG findings or when an individual relies solely on a review of NCS data, the results can be misleading, and important diagnoses may be missed.
In most instances, both NCS and usually EMG are necessary to perform diagnostic testing. While a provider may choose to perform just a NCS, when performed alone it is usually considered be a screening exam. The only exception to this is a situation when a provider may consider it appropriate to perform a NCS without doing an EMG for the diagnosis of carpal tunnel syndrome with a high pre-test probability.

**Electromyography**

Neurogenic disorders can be distinguishable from myopathic disorders by a carefully performed EMG. For example, both polymyositis and ALS (Amyotrophic Lateral Sclerosis) produce manifest weakness. The former carries a very different prognosis and treatment than the latter. An EMG is valuable in making this distinction. Similarly, classification of nerve trauma into axonal vs. demyelinating categories, with corresponding differences in prognoses, are possible with EMG. Below is a list of common disorders where an EMG, in tandem with properly conducted NCS, will be helpful in diagnosis:

1. Nerve compression syndromes, including carpal tunnel syndrome and other focal compressions.
2. Radiculopathy - cervical, lumbosacral.
4. Myopathy - including poly-and dermatomyositis, myotonic and congenital myopathies.
5. Plexopathy - idiopathic, trauma, infiltration.
7. When clinically necessary, immediately prior to botulinum toxin injection, for localization.
8. When clinically necessary, immediately prior to injection of phenol or other substances for nerve blocking or chemodenervation.

There may be other instances, not detailed here, where EMG may be of use.

**Use of EMG with Botulinum Toxin Injection**

EMG may be used to optimize the anatomic location of botulinum toxin injection. It is expected there will be one study performed per anatomic location of injection, if needed, and that the record will evidence the necessity for use of EMG.

**Limitations:**

**Nerve Conduction Studies**

Each descriptor (code) from codes 95907, 95908, 59509, 95910, 95911, 95912, and 95913 can be reimbursed only once per nerve, or named branch of a nerve, regardless of the number of sites tested or the number of methods used on that nerve. For instance, testing the ulnar nerve at wrist, forearm, below elbow, above elbow, axilla and supraclavicular regions will all be considered as a single nerve. Motor and sensory nerve testing are considered separate tests. CPT code 95905 is payable only once per limb studied and cannot be used in conjunction with any other nerve conduction codes.

**Screening testing for polynuropathy of diabetes or endstage renal disease (ESRD)** is NOT covered. Testing for the sole purpose of monitoring disease intensity or treatment efficacy in these two conditions is also not covered.

**Psychophysical measurements** (current, vibration, thermal perceptions), even though they may involve delivery of a stimulus, are considered to be part of the physical exam and may not be billed as a separate service.

**Current Perception Threshold/Sensory Nerve Conduction Threshold Test (sNCT)** – is not covered. This procedure is different and distinct from assessment of nerve conduction velocity, amplitude and latency. It is also different from short-latency somatosensory evoked potentials. Codes designated for eliciting nerve conduction velocity, latency or amplitude, and those designed for short latency evoked potentials are not to be used for sNCT. The sNCT has a unique code G0255: Effective October 1, 2002, CMS initially concluded that there was insufficient scientific or clinical evidence to consider the sNCT test and the device used in performing this test reasonable and necessary within the meaning of section 1862(a)(1)(A) of the law. Therefore, sNCT was noncovered. Based on a reconsideration [in March, 2004] of current Medicare policy for sNCT, CMS concludes that there continues to be insufficient scientific or clinical evidence to consider the sNCT test and the device used in performing this test as reasonable and necessary within the meaning of section 1862(a)(1)(A) of the law. CMS Publication 100-3, Medicare National Coverage Issues Manual, Chapter 1, Section 160.23

Examination using portable hand-held devices or devices which are incapable of real-time wave-form display and analysis and
incapable of both NCS and EMG testing will be included in the E/M service. They will not be paid separately. Examples include; The Axon II or delta fiber analysis testing and/or similarly limited machines with other names.

NCS must provide a number of response parameters in a real-time fashion to facilitate provider interpretation. Those parameters include amplitude, latency, configuration and conduction velocity. Diagnostic studies are not accepted that do not provide this information or those that provide delayed interpretation as substitutes for NCS. Raw measurement data obtained and transmitted telephonically or over the Internet, therefore, does not qualify for the payment of the electrodiagnostic service codes included in this LCD.

It is not expected to receive claims for nerve conduction testing accomplished with discriminatory devices that use fixed anatomic templates and computer-generated reports used as an adjunct to physical examination routinely on all patients and these must not be submitted using the codes in this LCD.

Electromyography

It is expected that providers will use CPT code 95870 for sampling muscles other than the paraspinals associated with the extremities, which have been tested. It is not expected to see this code billed when the paraspinal muscles corresponding to an extremity are tested and when the extremity EMG code 95860, 95861, 95863 or 95864 is also billed. The necessity and reasonableness of the following uses of EMG studies have not been established:

• exclusive testing of intrinsic foot muscles in the diagnosis of proximal lesions
• definitive diagnostic conclusions based on paraspinal EMG in regions bearing scar of past surgeries (e.g., previous laminectomies)
• pattern-setting limited limb muscle examinations, without paraspinal muscle testing for a diagnosis of radiculopathy
• EMG testing shortly after trauma, before EMG abnormalities would have reasonably had time to develop
• surface and macro EMGs
• multiple uses of EMG in the same patient at the same location of the same limb for the purpose of optimizing botulinum toxin injections.

For outpatient settings other than Comprehensive Outpatient Rehabilitation Facility (CORF)s, references to "physicians" throughout this policy include non-physicians, such as nurse practitioners, clinical nurse specialists and physician assistants. Such non-physician practitioners, with certain exceptions, may certify, order and establish the plan of care as authorized by State law. (See Sections 1861[s][2] and 1862[a][14] of Title XVIII of the Social Security Act; 42 CFR, Sections 410.74, 410.75, 410.76 and 419.22; 58 FR 18543, April 7, 2000.) Each practitioner must provide only those services within the scope of practice for each state.

Type of bill Code

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>012x</td>
<td>Hospital Inpatient (Medicare Part B only)</td>
</tr>
<tr>
<td>013x</td>
<td>Hospital Outpatient</td>
</tr>
<tr>
<td>021x</td>
<td>Skilled Nursing - Inpatient (Including Medicare Part A)</td>
</tr>
<tr>
<td>022x</td>
<td>Skilled Nursing - Inpatient (Medicare Part B only)</td>
</tr>
<tr>
<td>023x</td>
<td>Skilled Nursing - Outpatient</td>
</tr>
<tr>
<td>071x</td>
<td>Clinic - Rural Health</td>
</tr>
<tr>
<td>085x</td>
<td>Critical Access Hospital</td>
</tr>
</tbody>
</table>

Revenue Codes

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0920</td>
<td>Other Diagnostic Services - General Classification</td>
</tr>
</tbody>
</table>
CPT/HCPCS Codes:

Nerve Conduction Studies (NCS)

- 95873 Electrical stimulation for guidance in conjunction with chemodenervation (list separately in addition to code for primary procedure)
- 95905 Motor and/or sensory nerve conduction, using preconfigured electrode array(s), amplitude and latency/velocity study, each limb, includes f-wave study when performed, with interpretation and report
- 95907 Nerve conduction studies, 1-2 studies
- 95908 Nerve conduction studies, 3-4 studies
- 95909 Nerve conduction studies, 5-6 studies
- 95910 Nerve conduction studies, 7-8 studies
- 95911 Nerve conduction studies, 9-10 studies
- 95912 Nerve conduction studies, 11-12 studies
- 95913 Nerve conduction studies, 13 or more studies
- 95933 Orbicularis oculi (blink) reflex, by electrodiagnostic testing
- 95937 Neuromuscular junction testing (repetitive stimulation, paired stimuli), each nerve, any one method
- G0255 Current perception threshold/sensory nerve conduction test, (snct) per limb, any nerve

Electromyography (EMG)

- 51785 Needle electromyography studies (EMG) of anal or urethral sphincter, any technique
- 92265 Needle oculoelectromyography, one or more extraocular muscles, one or both eyes, with interpretation and report
- 95860 Needle electromyography, one extremity with or without related paraspinal areas
- 95861 Needle electromyography, two extremities with or without related paraspinal areas
- 95863 Needle electromyography, three extremities with or without related paraspinal areas
- 95864 Needle electromyography, four extremities with or without related paraspinal areas
- 95865 Needle Electromyography; larynx
- 95866 Needle electromyography: hemidiaphragm
- 95867 Needle electromyography, cranial nerve supplied muscles, unilateral
- 95868 Needle electromyography, cranial nerve supplied muscles, bilateral
- 95869 Needle electromyography; thoracic paraspinal muscles
- 95870 Limited study of muscles in one extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles or sphincters
- 95872 Needle electromyography using single fiber electrode, with quantitative measurement of jitter, blocking and/or fiber density, any/all sites of each muscle studied
- 95874 Needle electromyography for guidance in conjunction with chemodenervation (list separately in addition to code for primary procedure)
- 95885 Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; limited (list separately in addition to code for primary procedure)
- 95886 Complete, five or more muscles studied, innervated by three or more nerves or four or more spinal levels (list separately in addition to code for primary procedure)
- 95887 Needle electromyography, non-extremity (cranial nerve supplied or axial) muscles(s) done with nerve conduction, amplitude and latency/velocity studies (list separately in addition to code for primary procedure)
Does the CPT 30% Rule Apply

No

ICD-10 Codes that Support Medical Necessity

Note: Diagnosis codes must be coded to the highest level of specificity.

Procedure codes 51785, 92265, 95860, 95861, 95863, 95864, 95865, 95866, 95867, 95868, 95869, 95870, 95872, 95873, 95874, 95885, 95886, 95887, 95907, 95908, 95909, 95910, 95911, 95912, 95913, 95933, and 95937:

A05.1 Botulism food poisoning
A35 Other tetanus
A52.15 Late syphilitic neuropathy
B91 Sequelae of Poliomyelitis
C70.0 – C70.9 Malignant neoplasm of meninges
C72.0 – C72.9 Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system
C79.31 -C79.49 Secondary malignant neoplasm of other and unspecified sites
D32.1 Benign neoplasm of spinal meninges
D33.3 – D33.7 Benign neoplasm of brain and other parts of central nervous system
E08.40-E08.49 Diabetes mellitus due to underlying condition with neurological complications
E08.610 Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy
E09.40-E09.49 Drug or chemical induced diabetes mellitus with neurological complications
E09.610 Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy
E10.40-E10.49 Type 1 diabetes mellitus with neurological complications
E10.610 Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E11.40-E11.49 Type 2 diabetes mellitus with neurological complications
E11.610 Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E13.40-E13.49 Other specified diabetes mellitus with neurological complications
E13.610 Other specified diabetes mellitus with diabetic neuropathic arthropathy
E51.2 – E51.9 Thiamine deficiency
E56.0 Deficiency of vitamin E
E56.8 Deficiency of other vitamins
E78.6 Lipoprotein deficiency
E79.6 Deficiency of other fat-soluble vitamins
E84.5 Nutritional deficiency
E96.0 Deficiency of other vitamins
G04.1 Tropical spastic paraplegia
G11.0 –G12.9 Systemic atrophies primarily affecting the central nervous system
G13.0 – G13.1 Systemic atrophies primarily affecting central nervous system in diseases classified elsewhere
G14 Postpolio syndrome
G20 Parkinson’s disease
G21.4 Vascular parkinsonism
G24.01-G24.9 Dystonia
G25.3 Myoclonus
G25.61-G25.69 Drug induced tics and other tics of organic origin
G25.89-G25.9 Other extrapyramidal and movement disorders
G32.0 –G32.81 Other degenerative disorders of nervous system in diseases classified elsewhere
G35 - G37.9 Diseases of the nervous system
G50.0 – G50.9 Disorders of trigeminal nerve
G51.2 – G51.9 Facial nerve disorders
G52.1 – G61.89 Diseases of the nervous system
G62.0 – G62.89 Other and unspecified polyneuropathies
G63 - G65.2 Polyneuropathies and other disorders of the peripheral nervous system
G70.00-G73.7 Diseases of myoneural junction and muscle
G80.0 – G80.9 Cerebral palsy
G81.00-G81.94 Hemiplegia and hemiparesis
G82.20-G83.9 Diseases of the nervous system
G90.01-G90.09 Idiopathic peripheral autonomic neuropathy
G90.2 Horner’s syndrome
G90.4 – G90.9 Disorders of autonomic nervous system  
G93.3 Postviral fatigue syndrome  
G95.0 –G95.9 Other and unspecified diseases of spinal cord  
G99.0 –G99.2 Other disorders of nervous system in diseases classified elsewhere  
H02.141-H02.149 Spastic ectropion of eyelid  
H02.401-H02.409 Unspecified ptosis of eyelid  
H02.421-H02.439 Ptosis of eyelid  
H49.00-H49.43 Paralytic strabismus  
H49.881-H51.9 Disorders of ocular muscles, binocular movement, accommodation and refraction  
H53.2 Diplopia  
I95.1 Orthostatic hypotension  
J38.00-J38.02 Paralysis of vocal cords and larynx  
J38.5 Laryngeal spasm  
J38.7 Other diseases of larynx  
K22.0 Achalasia of cardia  
M05.40-M05.59 Rheumatoid arthritis with rheumatoid factor  
M21.071-M21.079 Valgus deformity, not elsewhere classified, ankle  
M21.171-M21.179 Varus deformity, not elsewhere classified, ankle  
M21.331-M21.379 Wrist or foot drop (acquired)  
M21.511-M21.519 Acquired clawhand  
M21.531-M21.6X9 Other acquired deformities of limbs  
M21.831-M21.839 Other specified acquired deformities of forearm  
M21.961-M21.969 Unspecified acquired deformity of lower leg  
M25.78 Osteophyte, vertebrae  
M33.00-M33.99 Juvenile dermatomyositis, organ involvement unspecified - Dermatopolymyositis, unspecified with other organ involvement  
M34.82-M34.83 Other forms of systemic sclerosis  
M35.03 Sicca syndrome with myopathy  
M35.3 -M35.4 Other systemic involvement of connective tissue  
M35.8 Other specified systemic involvement of connective tissue  
M36.0 Dermato(poly)myositis in neoplastic disease  
M43.00-M43.19 Other deforming dorsopathies  
M43.6 Torticollis  
M46.41-M46.47 Discitis, unspecified  
M47.011-M47.9 Spondylolisthesis  
M48.00-M48.38 Other spondylopathies  
M48.9 Spondylopathy, unspecified  
M50.00-M50.03 Cervical disc disorder with myelopathy  
M50.10-M50.13 Cervical disc disorder with radiculopathy  
M50.20-M50.33 Cervical disc disorders  
M50.80-M50.93 Cervical disc disorders  
M51.04-M51.06 Thoracic, thoracolumbar and lumbosacral intervertebral disc disorders with myelopathy  
M51.14-M51.17 Thoracic, thoracolumbar and lumbosacral intervertebral disc disorders with radiculopathy  
M51.24-M51.47 Thoracic, thoracolumbar, and lumbosacral intervertebral disc disorders  
M51.84-M51.87 Other thoracic, thoracolumbar and lumbosacral intervertebral disc disorders  
M51.9 Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc disorder  
M53.82 Other specified dorsopathies, cervical region  
M54.10-M54.18 Radiculopathy  
M54.2 – M54.6 Dorsalgia  
M54.89-M54.9 Dorsalgia  
M60.000-M60.09 Infective myositis  
M60.80-M60.9 Myositis  
M62.20-M62.28 Nontraumatic ischemic infarction of muscle  
M62.40-M62.59 Other disorders of muscle  
M62.81-M62.82 Other specified disorders of muscle  
M62.831-M62.838 Muscle spasm  
M62.84 Sarcopenia
Nerve Conduction Studies and Electromyography.2 A/B

M62.89-M63.89 Diseases of the musculoskeletal system and connective tissue
M72.8 Other fibroblastic disorders
M79.1 – M79.2 Other and unspecified soft tissue disorders, not elsewhere classified
M79.601-M79.676 Pain in limb, hand, foot, fingers and toes
M79.7 Fibromyalgia
M96.1 Postlaminectomy syndrome, not elsewhere classified
M99.20-M99.29 Subluxation stenosis of neural canal
M99.30-M99.39 Osseous stenosis of neural canal
M99.40-M99.49 Connective tissue stenosis of neural canal
M99.50-M99.59 Intervertebral disc stenosis of neural canal
M99.60-M99.69 Osseous and subluxation stenosis of intervertebral foramina
M99.70-M99.79 Connective tissue and disc stenosis of intervertebral foramina
N39.3 – N39.498 Other disorders of urinary system
Q05.0 –Q05.9 Spina bifida
Q06.2 Diastematomyelia
Q07.00-Q07.03 Arnold-Chiari syndrome
Q68.0 Congenital deformity of sternocleidomastoid muscle
Q85.00-Q85.09 Neurofibromatosis (nonmalignant)
R15.0 – R15.9 Fecal incontinence
R20.0 – R20.9 Disturbances of skin sensation
R25.0-R25.9 Abnormal involuntary movements
R26.0-R26.1 Abnormalities of gait and mobility
R26.81-R27.9 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
R29.0 Tetany
R29.5 Transient paralysis
R29.898 Other symptoms and signs involving the musculoskeletal system
R32 Unspecified urinary incontinence
R39.14 Feeling of incomplete bladder emptying
R41.1-R41.3 Other symptoms and signs involving cognitive functions and awareness
R41.9 Unspecified symptoms and signs involving cognitive functions and awareness
R45.83-R45.84 Other symptoms and signs involving emotional state
R47.02-R47.9 Speech disturbances, not elsewhere classified
R49.0 – R49.9 Voice and resonance disorders
R53.0 – R53.1 Malaise and fatigue
R53.81 Other malaise
R53.83 Other fatigue
R68.81 Early satiety
R68.89 Other general symptoms and signs
R94.131 Abnormal electromyogram [EMG]
S04.50XA-S04.52XS Injury of facial nerve
S04.811A-S04.899S Injury of other cranial nerves
S12.000A-S12.001S Unspecified fracture of first cervical vertebra
S12.100A-S12.101S Unspecified fracture of second cervical vertebra
S12.200A-S12.201S Unspecified fracture of third cervical vertebra
S12.300A-S12.301S Unspecified fracture of fourth cervical vertebra
S12.400A-S12.401S Unspecified fracture of fifth cervical vertebra
S12.500A-S12.501S Unspecified fracture of sixth cervical vertebra
S12.600A-S12.601S Unspecified fracture of seventh cervical vertebra
S14.0XXA-S14.9XXS Injury of nerves and spinal cord at neck level
S22.019A-S22.019S Unspecified fracture of first thoracic vertebra
S22.029A-S22.029S Unspecified fracture of second thoracic vertebra
S22.039A-S22.039S Unspecified fracture of third thoracic vertebra
S22.049A-S22.049S Unspecified fracture of forth thoracic vertebra
S22.059A-S22.059S Unspecified fracture of T5-T6 vertebra
S22.069A-S22.069S Unspecified fracture of T7-T8 vertebra
S22.079A-S22.079S Unspecified fracture of T9-T10 vertebra
S22.089A-S22.089S Unspecified fracture of T11-T12 vertebra
Nerve Conduction Studies and Electromyography

S24.0XXA-S24.104S Injury of nerves and spinal cord at thorax level
S24.111A-S24.114S Complete lesion of thoracic spinal cord
S24.131A-S24.134S Anterior cord syndrome of thoracic spinal cord
S24.141A-S24.144S Brown-Sequard syndrome of thoracic spinal cord
S24.151A-S24.154S Other incomplete lesions of thoracic spinal cord
S24.2XXA-S24.9XXS Injury of nerves and spinal cord at thorax level
S34.01XA-S34.9XXS Injury of lumbar and sacral spinal cord and nerves at abdomen, lower back and pelvis level
S44.00XA-S44.92XS Injury of nerves at shoulder and upper arm level
S54.00XA-S54.92XS Injury of nerves at forearm level
S64.00XA-S64.92XS Injury of nerves at wrist and hand level
S74.00XA-S74.92XS Injury of nerves at hip and thigh level
S84.00XA-S84.92XS Injury of tibial nerve at lower leg level
S94.01XA-S94.92XS Injury of nerves at ankle and foot level

Coverage for CPT code 95905 is limited to the following:

G56.00-G56.03 Carpal tunnel syndrome

ICD-10 Codes that DO NOT Support Medical Necessity

All diagnoses not listed in the "ICD-10 Codes that Support Medical Necessity."

Associated Information

Documentation Requirements

The patient’s medical records must clearly document the medical necessity for the test. It is not necessary to include documentation with each claim submission. Data gathered during NCS, however, should be available which reflect the actual numbers (latency, amplitude, etc.), preferably in a tabular (not narrative) format. The reason for referral and a clear diagnostic impression are required for each study. In cases where a review becomes necessary, a hard copy of waveforms and/or a complete written report with an interpretation of the test, sufficient to evidence the necessity, must be submitted upon request.

Normal findings and abnormalities uncovered during the study should be documented with the muscles tested, the presence and type of spontaneous activity, as well as the characteristics of the voluntary unit potentials and interpretation.

The HCPCS/CPT code(s) may be subject to Correct Coding Initiative (CCI) edits in addition to guidance in this LCD. Please refer to the CCI for correct coding guidelines and specific applicable code combinations prior to billing. Whichever guidance is more restrictive should be adhered to.

When the documentation does not meet the criteria for the service rendered or the documentation does not establish the medical necessity for the services, such services will be denied as not reasonable and necessary under Section 1862(a)(1) of the Social Security Act.

When requesting an individual consideration through the written redetermination (formerly appeal) process, providers must include all relevant medical records and literature that supports the request. At a minimum two (2) Phase II studies (human feasibility studies suggesting efficacy, pilots) or one (1) Phase III study (primary evidence of safety and efficacy, pivotal) must be submitted for the Medical Director's review.

Utilization Guidelines

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Each descriptor (code) from codes 95907, 95908, 59509, 95910, 95911, 95912, and 95913 can be reimbursed only once per nerve, or named branch of a nerve, regardless of the number of sites tested or the number of methods used on that nerve. For instance, testing
Nerve Conduction Studies and Electromyography. The ulnar nerve at wrist, forearm, below elbow, above elbow, axilla and supraclavicular regions will all be considered as a single nerve. Motor and sensory nerve testing are considered separate tests. CPT code 95905 is payable only once per limb studied and cannot be used in conjunction with any other nerve conduction codes.

The number of tests (units of each CPT code) performed should be the minimum needed to establish an accurate diagnosis. It is expected that on a particular day of testing, the number of tests performed/nerves tested should not exceed the number of tests/nerves indicated in the table contained in the “Coding Guidelines” section, and exceptions may result in medical review.

Categorically, there are general standards accepted for repeat electrodiagnostic testing in certain categories of diseases. Not more than two electrodiagnostic evaluations per 12-month period are generally accepted for carpal tunnel syndrome, radiculopathy, mononeuropathy, polyneuropathy, myopathy, and neuromuscular junction disease.

Not more than three electrodiagnostic evaluations in a 12-month period are generally accepted for motor neuropathy and plexopathy. Therefore, repeat electrodiagnostic testing should not be needed in a 12-month period in the majority of all cases. The medical record establishes medical necessity of any service or procedure and should be available to verify the need for repeat testing on any patient.

Sources of Information and Basis for Decision

First Coast Service Options, Inc. reference LCD number(s) – L28834, L28867, L29164, L29325


18. AANEM Position Statement; Muscle & Nerve 33: 436-439; 2006,


23. Noridian Administrative Services, LLC: Nerve Conduction Studies and Electromyography (L03102)

24. Wisconsin Physician Service Insurance Corp.: Nerve Conduction Studies and Electromyography (L31346)

Start Date of Comment Period
N/A

End Date of Comment Period
N/A

Start Date of Notice Period
N/A

Revision History

Revision History Number: R2

Revision Number: 2
Publication: September 2017 Connection
LCR A/B2017-038

Explanation of Revision: Based on CR 10153 (Annual 2018 ICD-10-CM Update) the LCD was revised. Descriptor revised for ICD-10-CM diagnosis code M33.00. The effective date of this revision is based on date of service.

Revision History Number: R1

Revision Number: 1
Publication: October 2016 Connection
Nerve Conduction Studies and Electromyography.2 A/B

LCR A/B2016-097

Explanation of Revision: Based on CR 9677 (Annual 2017 ICD-10-CM Update) the LCD was revised to add diagnosis codes M62.84 to the “ICD-10 Codes that Support Medical Necessity” section of the LCD for procedure codes 51785, 92265, 95860, 95861, 95863, 95864, 95865, 95866, 95867, 95868, 95869, 95870, 95872, 95873, 95874, 95885, 95886, 95887, 95907, 95908, 95909, 95910, 95911, 95912, 95913, 95933, and 95937. In addition, for the limited coverage of procedure code 95905, ICD-10-CM diagnosis code range G56.00-G56.02 was replaced by ICD-10-CM diagnosis code range G56.00-G56.03. The effective date of this revision is based on date of service.

Revision Number: Original

This LCD replaces all previous LCD versions (refer to “Sources of Information and Basis for Decision” section of the LCD) and publications on this subject to comply with ICD-10-CM based on Change Request 8112. The effective date of this LCD is based on date of service.

Related Documents

N/A

LCD Attachments

Coding guidelines

Document formatted: 09/05/2017 (RC/MB/dc)