

LCD - Nerve Conduction Studies and Electromyography (L35098)

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

Contractor Information

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATES
National Government Services, Inc.	MAC - Part A	06101 - MAC A	J - 06	Illinois
National Government Services, Inc.	MAC - Part B	06102 - MAC B	J - 06	Illinois
National Government Services, Inc.	MAC - Part A	06201 - MAC A	J - 06	Minnesota
National Government Services, Inc.	MAC - Part B	06202 - MAC B	J - 06	Minnesota
National Government Services, Inc.	MAC - Part A	06301 - MAC A	J - 06	Wisconsin
National Government Services, Inc.	MAC - Part B	06302 - MAC B	J - 06	Wisconsin
National Government Services, Inc.	A and B and HHH MAC	13101 - MAC A	J - K	Connecticut
National Government Services, Inc.	A and B and HHH MAC	13102 - MAC B	J - K	Connecticut
National Government Services, Inc.	A and B and HHH MAC	13201 - MAC A	J - K	New York - Entire State
National Government Services, Inc.	A and B and HHH MAC	13202 - MAC B	J - K	New York - Downstate
National Government Services, Inc.	A and B and HHH MAC	13282 - MAC B	J - K	New York - Upstate
National Government Services, Inc.	A and B and HHH MAC	13292 - MAC B	J - K	New York - Queens
National Government Services, Inc.	A and B and HHH MAC	14111 - MAC A	J - K	Maine
National Government Services, Inc.	A and B and HHH MAC	14112 - MAC B	J - K	Maine
National Government Services, Inc.	A and B and HHH MAC	14211 - MAC A	J - K	Massachusetts
National Government Services, Inc.	A and B and HHH MAC	14212 - MAC B	J - K	Massachusetts

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATES
National Government Services, Inc.	A and B and HHH MAC	14311 - MAC A	J - K	New Hampshire
National Government Services, Inc.	A and B and HHH MAC	14312 - MAC B	J - K	New Hampshire
National Government Services, Inc.	A and B and HHH MAC	14411 - MAC A	J - K	Rhode Island
National Government Services, Inc.	A and B and HHH MAC	14412 - MAC B	J - K	Rhode Island
National Government Services, Inc.	A and B and HHH MAC	14511 - MAC A	J - K	Vermont
National Government Services, Inc.	A and B and HHH MAC	14512 - MAC B	J - K	Vermont

LCD Information

Document Information

LCD ID

L35098

LCD Title

Nerve Conduction Studies and Electromyography

Proposed LCD in Comment Period

N/A

Source Proposed LCD

N/A

Original Effective Date

For services performed on or after 10/01/2015

Revision Effective Date

For services performed on or after 11/21/2019

Revision Ending Date

N/A

Retirement Date

N/A

AMA CPT / ADA CDT / AHA NUBC Copyright Statement

CPT codes, descriptions and other data only are copyright 2021 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply.

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.

Current Dental Terminology © 2021 American Dental Association. All rights reserved.

Copyright © 2013 - 2022, the American Hospital Association, Chicago, Illinois. Reproduced by CMS with permission. No portion of the American Hospital Association (AHA) copyrighted materials contained within this publication may be copied without the express written consent of the AHA. AHA copyrighted materials including the UB-04 codes and descriptions may not be removed, copied, or utilized within any software, product, service, solution or derivative work without the written consent of the AHA. If an entity wishes to utilize any AHA materials, please contact the AHA at 312-893-6816. Making copies or utilizing the content of the UB-04 Manual, including the codes and/or descriptions, for internal purposes, resale and/or to be used in any product or publication; creating any modified or derivative work of the UB-04 Manual and/or codes and descriptions; and/or making any commercial use of UB-04 Manual or any portion thereof, including the codes and/or descriptions, is only authorized with an express license from the American Hospital Association. To license the electronic data file of UB-04 Data Specifications, contact Tim Carlson at (312) 893-6816. You may also contact us at ub04@aha.org.

Notice Period Start Date

N/A

Notice Period End Date

N/A

CMS National Coverage Policy

Language quoted from Centers for Medicare and Medicaid Services (CMS), National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals is italicized throughout the policy. NCDs and coverage provisions in interpretive manuals are not subject to the Local Coverage Determination (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 Section 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 (SSA):

Section 1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Section 1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

Section 1862(a)(7) excludes routine physical examinations, unless otherwise covered by statute.

Code of Federal Regulations:

42 CFR, Section 410.32, indicates that diagnostic tests may only be ordered by the treating physician (or other treating practitioner acting within the scope of his or her license and Medicare requirements) who furnishes a consultation or treats a beneficiary for a specific medical problem and who uses the results in the management of the beneficiary's specific medical problem. Tests not ordered by the physician (or other qualified non-physician provider) who is treating the beneficiary are not reasonable and necessary (see Sec. 411.15(k)(1) of this chapter).

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: 160.23 Sensory Nerve Conduction Threshold Tests (sNCTs)

CMS Transmittal No. B-01-28 Change Request #850, describes tests that may be performed by PTs with ABPTS certification.

CMS Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15: 80 Requirements for Diagnostic Tests

CMS Transmittal No. 2663 Change Request #8169 April Update to the CY 2013 Medicare Physician Fee Schedule Database (MPFSDB).

Coverage Guidance**Coverage Indications, Limitations, and/or Medical Necessity**

Abstract:

National Government Services (NGS) expects 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-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.

The electrodiagnostic evaluation is 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 of knowledge about clinical diagnostic and management aspects of neuromuscular diseases, may not be 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 may be both inadequate and ultimately be detrimental to the patient.

Guidelines about proper qualifications for qualified health care professionals performing electrodiagnostic evaluations have been developed and published by AANEM (American Association of Neuromuscular and Electrodiagnostic Medicine) 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 EMGs and NCSs 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.

Nerve conduction studies (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.

Nerve conduction studies 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 often also 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.

Neuromuscular junction testing involves the stimulation of an individual motor nerve by means of repetitive electrical impulses with measurement of the resulting electrical activity of a muscle supplied by that nerve. Supramaximal electrical stimuli are delivered to the nerve. A surface electrode over, or percutaneous electrode placed in, a corresponding muscle records the evoked muscle action potentials using standard nerve conduction study techniques. The nerve is then stimulated electrically in a repetitive train at 2-3 Hz, or in special circumstances at higher rates up to 50 Hz. In diseases of the neuromuscular junction, characteristic changes of a progressive decrease (decrement) in the compound action potential amplitude may be seen during the repetitive stimulation.

Electromyography (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 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 also invasive in that it requires needle electrode insertion and adjustment at multiple sites, and at times anatomically critical sites. As in NCS during EMG studies the electromyographer depends on ongoing real-time interpretation based knowledge of clinical diagnosis 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 on the integrity of the functioning connection between a nerve and its innervated muscle but also on the integrity of a 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), polyneuropathy, etc. 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 EMGs, and myelin and axonal involvement are best detected by NCSs.

Indications:

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. 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 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 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 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 not always adequate 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 either wrong or detrimental to the patient.

The following definitions are from the American Association of Neuromuscular & Electrodiagnostic Medicine Recommended Policy for Electrodiagnostic Medicine:

"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."

d. 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.

When the beneficiary has a high pre-test or a prior probability for having the diagnosis of Carpal Tunnel Syndrome, the NC-stat® System (alone) will be allowed, one service per arm.

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 an NCS, when performed alone it is usually considered not medically necessary. The only exception to this is a situation when a provider may consider it appropriate to perform an NCS without doing an EMG for the diagnosis of carpal tunnel syndrome with a high pre-test probability.

Neuromuscular Junction Testing

Neuromuscular junction testing by repetitive stimulation may be reasonable and necessary to diagnose patients with fatiguable weakness who are being evaluated for possible disease of the neuromuscular junction. These diseases may include myasthenia gravis or Lambert Eaton myasthenic syndrome (LEMS), as well as Botulinum toxicity. Rarely, exposure to certain drugs such as aminoglycoside antibiotics can potentiate myasthenic symptoms. Patients in intensive care unit (ICU) settings who experience continued weakness after a critical illness which has required being paralyzed for mechanical ventilation may also be candidates for this type of testing.

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 very 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.
3. Mono/polyneuropathy - metabolic, degenerative, hereditary.
4. Myopathy - including poly-and dermatomyositis, myotonic and congenital myopathies.

5. Plexopathy - idiopathic, trauma, infiltration.
6. Neuromuscular junction disorders - myasthenia gravis. Single fiber EMG is of especial value here.
7. At times, immediately prior to Botulinum A toxin injection, for localization.
8. At times, 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. Please refer to the NGS LCD for Botulinum Toxins, L33646, and related Article, A52848, for further coverage and coding guidance.

Limitations:

Nerve Conduction Studies

Routine testing for polyneuropathy of diabetes or endstage renal disease (ESRD) is not considered medically necessary and is not covered. Testing for the sole purpose of monitoring disease intensity or treatment efficacy in these two conditions is also not covered.

Nerve conduction studies 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. Medicare does not accept diagnostic studies that do not provide this information or those that provide delayed interpretation as substitutes for Nerve conduction studies. Raw measurement data obtained and transmitted trans-telephonically or over the Internet, therefore, does not qualify for the payment of the electrodiagnostic service codes included in this LCD.

Medicare does not expect 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.

Neuromuscular Junction Testing

Neuromuscular junction testing by repetitive stimulation is not considered reasonable and necessary for the diagnosis or treatment of diabetic neuropathy.

Neuromuscular junction testing by repetitive stimulation is not considered reasonable and necessary for the diagnosis or treatment of carpal or tarsal tunnel syndrome.

Neuromuscular junction testing by repetitive stimulation is indicated for specific physical signs and symptoms (e.g. diplopia, dysphagia, weakness, fatigue) only if there is actual clinical suspicion that a neuromuscular junction disorder is the cause.

Electromyography

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 EMG's
- multiple uses of EMG in the same patient at the same location of the same limb for the purpose of optimizing Botulinum toxin injections.

Summary of Evidence

N/A

Analysis of Evidence (Rationale for Determination)

N/A

General Information

Associated Information

N/A

Sources of Information

This bibliography presents those sources that were obtained during the development of this policy. National Government Services is not responsible for the continuing viability of Web site addresses listed below.

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

AANEM Practice Topics. September, 2006.

AANEM Recommended Policy for Electrodiagnostic Medicine. <http://www.aan.com/globals/axon/assets/4061.pdf>.

ABPTS. 2011 Physical Therapy Specialist Clinical Electrophysiology Certification Examination Application & Information Booklet. 2010. <http://www.apta.org>.

ABPTS. *Clinical Electrophysiologic Physical Therapy: Description of Specialty Practice*. Alexandria, VA. 2005.

American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM). Recommended Policy for Electrodiagnostic Medicine. <http://www.aan.com/globals/axon/assets/4061.pdf>. Accessed December 15, 2010.

APTA. Electrophysiologic Examination and Evaluation Position Statement. June 1985. HOD P06-96-20-04. <http://www.apta.org>.

Brown E. An Evidence Based Technology Assessment of the NC-stat® Device; March 19, 2007.

Department of Health and Human Services Office of the Inspector General Work Plan Fiscal Year 2004. <http://oig.hhs.gov/reading/workplan/2004/Work%20Plan%202004.pdf>. Accessed September 13, 2005.

Elkowitz SJ, Dubin NH, Richards BE, et al. Clinical utility of portable versus traditional electrodiagnostic testing for diagnosing, evaluating and treating carpal tunnel syndrome. *Am J Orthop*. 2005;34(8):362-364.

Hilburn JW. General principles and use of electrodiagnostic studies in carpal and cubital tunnel syndrome. With special attention to pitfalls and interpretation. *Hand Clin*. 1996;12(2):205-221.

Jabre JF, Salzsieder BT, Gnemi KE. Criterion validity of the NC-stat automated nerve conduction measurement instrument. *Physiol Meas*. 2007;28(1):95-104.

Katz, J, Simon B. Carpal Tunnel Syndrome. *New England Journal of Medicine*. 2002;346:1807-1812.

Katz RT. NC-stat as a screening tool for carpal tunnel syndrome in industrial workers. *J Occup Environ Med*. 2006;48(4):414-418.

Kong X, Gozani SN, Hayes MT, Weinberg DH. NC-stat sensory nerve conduction studies in the median and ulnar nerves of symptomatic patients. *Clin Neurophysiol*. 2006;117(2):405-413.

Leffler CT, Gozani SN, Cros D. Median neuropathy at the wrist: diagnostic utility of clinical findings and an automated electrodiagnostic device. *J Occup Environ Med*. 2000;42(4):398-409.

Morse J. NC-stat® System, NeuroMetrix® Inc. (Nerve Conduction Testing System) Technology Assessment: June 8, 2006 <http://www.Ini.wa.gov/ClaimsIns/Providers/Treatment/CovMedDev/SpecCovDec/NCstat.asp>.

Morse, J. Office of the Medical Director, Department of Labor and Industries. Washington State Department of Labor and Industries. Technology Assessment: NC-stat System, NeuroMetrix, Inc. June 8, 2006. <http://www.Ini.wa.gov/ClaimsIns/Files/OMD/taNCSTAT0506.pdf>.

Perkins BA, Grewal J, Ng E, et al. Validation of a novel point-of-care nerve conduction device for the detection of diabetic sensorimotor polyneuropathy. *Diabetes Care*. 2006;29(9):2023-2027.

U.S. Food and Drug Administration 510(k) Premarket Notification Database. NeuroMetrix NC-stat.® No. K041320. Rockville, MD: FDA. Aug. 12, 2004. <http://www.fda.gov/cdrh/>.

Vinik AL, Emley MS, Megerian JT, et al. Median and ulnar nerve conduction measurements in patients with symptoms of diabetic peripheral neuropathy using the NC-stat system. *Diabetes Technol Ther*. 2004;6(6):816-824.

Werner RA, Cavender GD. Evaluating radiculopathy: how useful is electrodiagnostic testing? *Phys Med Rehabil: State of the Art Reviews* 1999;13:251-261.AANEM.
pdf.

Bibliography

N/A

Revision History Information

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASONS FOR CHANGE
11/21/2019	R10	This LCD was converted to the new "no-codes" format. There has been no change in coverage with this LCD revision.	<ul style="list-style-type: none"> • Revisions Due To Code Removal
11/21/2019	R9	Consistent with Change Request 10901, all coding information, National coverage provisions, and Associated Information (Documentation Requirements, Utilization Guidelines) have been removed from the LCD and placed in the related Billing and Coding Article, A57668. There has been no change in coverage with this LCD revision.	<ul style="list-style-type: none"> • Revisions Due To Code Removal
10/01/2018	R8	<p>LCD revised for annual ICD-10 updates.</p> <p>In Group 1, code G51.3 was deleted and replaced by G51.31, G51.32, and G51.33. ICD-10 code G71.0 was deleted and replaced by G71.01, G71.02 and G71.09. ICD-10 code M79.1 was deleted and replaced by M79.11, M79.12, and M79.18.</p> <p><i>DATE (10/01/2018): At this time, the 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i></p>	<ul style="list-style-type: none"> • Revisions Due To ICD-10-CM Code Changes
10/01/2017	R7	<p>LCD revised for annual ICD-10 updates for 2018.</p> <p>ICD-10 codes E11.10, E11.11, M33.03, M33.13, and M33.93, were added for Group 1 (Nerve conduction and EMG). Codes M48.061 and M48.062 were added to Group 1 to replace deleted code M48.06.</p> <p>ICD-10 codes G12.23, G12.24, and G12.25 were added to Group 1 (Nerve conduction and EMG) and Group 2 (Neuromuscular Junction Testing).</p>	<ul style="list-style-type: none"> • Revisions Due To ICD-10-CM Code Changes

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASONS FOR CHANGE
		<i>DATE (10/01/2017): At this time, the 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i>	
10/01/2016	R6	LCD updated due to 2017 ICD-10 changes. Multiple ICD-10 codes were added to group 1, and 2.	<ul style="list-style-type: none"> • Revisions Due To ICD-10-CM Code Changes
10/01/2015	R5	ICD-10 code G62.9 was added to Group 1 diagnoses (nerve conduction and electromyography) effective for dates of service on or after 10/01/2015.	<ul style="list-style-type: none"> • Request for Coverage by a Provider (Part A)
10/01/2015	R4	Corrected typo for code 95909 under Limitations for NCS: Each descriptor (code) from codes 95907, 95908, 95909, 95910, 95911, 95912, and 95913.	<ul style="list-style-type: none"> • Typographical Error
10/01/2015	R3	ICD-10 codes were revised to add the 7th digit for D=subsequent encounter and S=sequela, where the 7th digit, A=initial encounter was already included.	<ul style="list-style-type: none"> • Provider Education/Guidance
10/01/2015	R2	LCD revised to change wording from screening to not medically necessary under the sections about performing nerve conduction studies alone and testing for polyneuropathy of diabetes or endstage renal disease. In addition, ICD-10 codes H02.421, H02.422, H02.423, H02.431, H02.432, and H02.433 were added to the list of diagnoses payable for neuromuscular junction testing (CPT code 95937).	<ul style="list-style-type: none"> • Creation of Uniform LCDs With Other MAC Jurisdiction
10/01/2015	R1	Updated to include revisions made since April 2014.	<ul style="list-style-type: none"> • Other (Updated to include revisions made since April 2014.)

Associated Documents

Attachments

N/A

Related Local Coverage Documents

Articles

[A57668 - Billing and Coding: Nerve Conduction Studies and Electromyography](#)

Related National Coverage Documents

N/A

Public Versions

UPDATED ON	EFFECTIVE DATES	STATUS
11/14/2019	11/21/2019 - N/A	Currently in Effect (This Version)
11/13/2019	11/21/2019 - N/A	Superseded

Some older versions have been archived. Please visit the MCD Archive Site to retrieve them.

Keywords

N/A