CareSource

MEDICAL POLICY STATEMENT
KENTUCKY MARKETPLACE

Policy Name	Policy Number	Date Effective
Electrodiagnostic Testing: Nerve Conduction and Needle Electromyography Automated Nerve Conduction Studies	MM-0920	08/01/2020-05/31/2021

Policy Type			
MEDICAL	Administrative	Pharmacy	Reimbursement

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A. Subject

Electrodiagnostic Testing: Nerve Conduction and Needle Electromyography Automated Nerve Conduction Studies

B. Background

Nerve Conduction Studies (NCS) assess the integrity and function of the nerves by measuring various electrical components of nerve function, including conduction velocity, wave size and response type. In the hands of appropriately trained physicians various neuropathies can be identified, severity quantified and the distribution of the impairment can be assessed. Demyelination and axon loss can also be identified.

Nerve conduction studies in the absence of needle electromyographic studies are incomplete. Electrodiagnostic studies should be considered as an adjunct to a complete history and physical examination and in combination with appropriate imaging, laboratory, and other diagnostic tests. Nerve conduction studies as a screen for vague neurologic symptoms, without history and physical findings to suggest a neurologic etiology, and without companion electromyographic

Professional Society Recommendations:
According to the American Association of Neuromuscular & Electrodiagnostic Medicine – (AANEM), electrodiagnostic studies/testing is indicated in the following scenarios:

1. Focal neuropathies, entrapment neuropathies, or compressive lesions/syndromes, such as, carpal tunnel syndrome, ulnar neuropathies, or root lesions for localization.
2. Traumatic nerve lesions, for diagnosis and prognosis.
3. Generalized neuropathies, such as, diabetic, uremic, metabolic, toxic, hereditary, or immune-mediated.
4. Neuromuscular junction disorders, such as, myasthenia gravis, myasthenic syndrome, or botulism.
5. Symptom-based presentations, such as, pain in limb, weakness, disturbance in skin sensation or paraesthesia when appropriate pre-test evaluations are inconclusive and the clinical assessment unequivocally supports the need for the study.
6. Radiculopathies-cervical, thoracic and lumbosacral.
7. Plexopathy-idiopathic, trauma, inflammatory, or infiltrative.
8. Myopathy-including polymyositis and dermatomyositis, myotonic disorders, and congenital myopathies.
9. Precise muscle location for injections such as botulinum toxin, phenol, etc.

C. Definitions

- **Automated nerve conduction** - is an automated, unidirectional and distal test that allows only a limited number of specific nerves to be tested.
- **Needle Electromyography Study** - refers to the recording and study of electrical activity of skeletal muscle using a needle electrode.
- **Nerve Conduction Study (NCS)** - is the recording and analysis of electric waveforms of biologic origin elicited in response to electric or physiologic stimuli.
- **Nerve Conduction Velocity (NCV)** - is the speed of action potential propagation along a nerve fiber or nerve trunk.

- **On Site** - Use of the term “on site” indicates that generating or reviewing a summary of the patient’s history and physical examination, execution of the nerve conduction studies and EMG examination, analysis of the electrodiagnostic (EDX) data, and determination of the diagnoses for the patient are performed in the same location which is most commonly the EDX laboratory (an office, a hospital, or a medical clinic). The “onsite” definition precludes the use of telemetry or other technologies that allow the EDX data to be transmitted to and interpreted at a location different from where the EDX study is performed.
- **Real Time** - The use of the term “real time” with regard to nerve conduction studies indicates that information from the history and physical examinations are integrated, the specific and tailored EDX study is performed and the analysis of the waveforms are all done while the patient is present in the EDX laboratory. An EDX study performed in “real time” is more sensitive and accurate since it allows the NCS and EMG tests performed to be interpreted and additional NCS or EMG studies be performed , if necessary, to further define the disorders which are present and final diagnosis (diagnoses) to be made before the patient leaves the EDX laboratory.

D. Policy

I. Does not require a prior authorization for participating providers.

II. Nerve Conduction Studies is considered medically necessary for the diagnosis of peripheral nervous system disorders and diseases for the following indications:
   A. When accompanied by needle EMG and
   B. Performed by physicians appropriately trained in neuromuscular disorders and
   C. When performed by appropriately certified or registered technologists when the following indications are present:
      1. Focal neuropathies, entrapment neuropathies, or compressive lesions/syndromes, such as, carpal tunnel syndrome, ulnar neuropathies, or root lesions for localization
      2. Traumatic nerve lesions, for diagnosis and prognosis
      3. Generalized neuropathies, such as diabetic, uremic, metabolic, toxic, hereditary, or immune-mediated
      4. Neuromuscular junction disorders such as myasthenia gravis, myasthenic syndrome, or botulism
      5. Symptom-based presentations, such as, pain in limb, weakness, disturbance of skin sensation or paraesthesia when appropriate pre-test evaluations are inconclusive and the clinical assessment unequivocally supports the need for the study
      6. Radiculopathy-cervical, lumbosacral
      7. Plexopathy-idiopathic, trauma, inflammatory, or infiltrative
      8. Myopathy-including polymyositis and dermatomyositis, myotonic disorders, and congenital myopathies
      9. Precise muscle location for injections, such as, botulinum toxin, phenol, etc.

III. Exclusions
   A. Electrodiagnostic testing with automated, noninvasive nerve conduction testing devices is considered investigational and not medically necessary for all indications,

1. Including as an alternative method of performing NCSs.
2. Examination using portable hand-held devices, which are incapable of real-time wave-form display and analysis, should be considered part of the evaluation & management (E/M) service and should not be paid separately.

NOTE: CareSource considers the use of automated nerve conduction studies as unproven and investigational and not medically necessary.

NOTE: Nerve conduction studies in the absence of needle EMG may be considered medically necessary in members on anticoagulants, those who have lymphedema, or those being evaluated for carpal tunnel syndrome.

E. Conditions of Coverage

F. Related Policies/Rules

G. Review/Revision History

	DATE	ACTION
Date Issued	12/03/2014	
Date Revised	05/13/2020	Updated references. Removed outdated background information. Updated page numbers. Updated policy number from MM-0006
Date Effective	08/01/2020	
Date Archived	05/31/2021	No longer effective as of 05/31/2021. This Policy is no longer active and has been archived. Please note that there could be other Policies that may have some of the same rules incorporated and CareSource reserves the right to follow CMS/State/NCCI guidelines without a formal documented Policy.

H. References

1. AANEM Glossary of Terms in Neuromuscular and Electrodiagnostic Medicine. (2015). Retrieved March 6, 2020 from www.aanem.org.
2. AANEM. Model Policy for Needle Electromyography and Nerve Conduction Studies. Updated and re-approved January 2016. Retrieved March 6, 2020 from www.aanem.org.
3. AANEM. Position Statement. Proper Performance and Interpretation of Electrodiagnostic Studies. January 2020. Retrieved March 6, 2020 from www.aanem.org.
4. AANEM. Position Statement. Who is Qualified to Practice Electrodiagnostic Medicine? November 2017, endorsed by the American Academy of Physical Medicine & Rehabilitation: December 2019. Retrieved March 6, 2020 from www.aanem.org
5. AANEM. Education Report. Reporting the Results of Needle EMG and Nerve Conduction Studies. May 2014. Retrieved March 6, 2020 from www.aanem.org.
6. AANEM. Risks in Electrodiagnostic Testing. 2014. Retrieved March 6, 2020 from www.aanem.org.

7. AANEM. Responsibilities of a Nerve Conduction Technologist. November 2014 Retrieved March 6, 2020 from www.aanem.org.
8. AANEM. What Does “On Site” and “Real Time” Mean? Approved by the American Association of Neuromuscular & Electrodiagnostic Medicine, November 2019 Retrieved March 6, 2020 from www.aanem.org.

The Medical Policy Statement detailed above has received due consideration as defined in the Medical Policy Statement Policy and is approved.