

Coverage Policy and Recommended Guidelines for Electrodiagnostic Testing

Effective Date: April 11, 2008

This coverage and payment policy pertains to all State Fund and Self-Insured claims.

Coverage Policy:

The department or self-insurer does cover use of electrodiagnostic testing including nerve conduction studies and needle electromyography only when:

- Proper and necessary, **and**
- Testing meets the requirements described in this policy.

Background:

Electrodiagnostic testing, including nerve conduction studies (NCS) and needle electromyography (EMG), is used to identify or diagnose injury or diseases of or affecting the peripheral nervous system and skeletal muscles. NCS testing typically involves use of surface electrodes which stimulate nerves through small electric shocks and record the information back from the nerves (eg, conduction velocity, wave forms, and amplitude). This information may provide valuable diagnostic information necessary to develop or inform a treatment plan.

Needle electromyography (EMG) is an invasive procedure and is performed in a similar manner to NCS, except that stimulation and/or recording occur through fine needle electrodes inserted into or near muscle and nerve tissue.

NCS and EMG are traditionally performed by specialist physicians trained in neurophysiology programs such as physical medicine and rehabilitation (PMR) or neurology. NCS Testing may also be performed by trained technicians working under the direct supervision of physicians trained in neurophysiology. In the majority of situations, the needle EMG and the NCS examinations should be conducted and interpreted at the same time.

This policy adopts, in large part, the recommendations for the proper performance of NCS and EMG from the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM), and refers to Center for Medicare and Medicaid (CMS) payment policy. The AANEM has developed coverage policy and reimbursement recommendations for insurers. The AANEM recommendations are endorsed by the American Academy of Neurology and the American Academy of Physical Medicine & Rehabilitation.

Requirements for appropriate electrodiagnostic testing:

- EMG and NCS should be performed by or under the direct, in office, supervision of a neurologist or physical medicine and rehabilitation specialist (physiatrist). Direct supervision is defined by Centers for Medicare and Medicaid Services (CMS) to mean the physician is present in the office suite when the test is performed.¹ The physician interpreting EMG and NCS results should be formally trained in neurology, or physical medicine and rehabilitation.
 - Exception: Per Washington State law, physical therapists who meet the requirements of Department of Health (DOH) rule (WAC 246-915-370) may perform EMG and NCS upon referral by an authorized healthcare practitioner (RCW 18.74.010(7)). The authorized practitioner must be the Attending Provider on the injured worker's claim, a consultant, or a provider authorized by the insurer to provide concurrent care on the claim.
- Interpretation and diagnosis of EMG and NCS results requires face-to-face contact with the patient.
- Diagnosis, based on results of EMG or NCS for the purposes of Washington State Workers' Compensation claims, must be made by the neurologist or physiatrist, or by the Attending Provider, a consultant, or a provider authorized by the insurer to provide concurrent care on the claim.
- Technicians may perform NCS under the direct, in office, supervision of a neurologist or physiatrist.
- EMG and NCS testing for suspected carpal tunnel syndrome is addressed in the department's Medical Treatment Guidelines for Carpal Tunnel Syndrome available at:
<http://www.LNI.wa.gov/ClaimsIns/Providers/Treatment/TreatGuide/Default.asp>

Non-covered electrodiagnostic testing services:

1. Testing which is not Proper and Necessary per WAC 296-20-01002.
In general, repetitive testing is not considered Proper and Necessary except:
 - i. To document ongoing nerve injury, for example, following surgery.
 - ii. If required for provision of an impairment rating.
 - iii. To document significant changes in clinical condition.
2. Testing by mobile diagnostic labs, in which the specialist physician is not present to examine and test the patient.
3. Testing with non-covered devices including portable, automated and 'virtual' devices not demonstrated equivalent to traditional lab-based equipment (eg, NC-stat[®], Brevio).
4. Testing determined to be outside of AANEM recommended guidelines without proper documentation supporting that it is proper and necessary. For access to complete AANEM recommendations please follow links below or contact the department.

The table below was developed by the AANEM and is summarizes reasonable limits on units required, per diagnostic category, to determine a diagnosis 90% of the time. Review of the quality and appropriateness (proper and necessary) may occur when testing repeatedly exceeds AANEM recommendations.

Recommended Maximum Number of Studies by Indication (adapted from AANEM Table 1).

Indication	Needle EMG CPT® 95860-95864, 95867-95870	NCS CPT® 95900,95903,95904		Other EMG Studies CPT® 95934,95936,95937	
	Number of tests	Motor NCS with and/or without F-wave	Sensory NCS	H-Reflex	Neuromuscular Junction Testing (repetitive stimulation)
Carpal tunnel (unilateral)	1	3	4		
Carpal tunnel (bilateral)	2	4	6		
Radiculopathy	2	3	2	2	
Mononeuropathy	1	3	3	2	
Poly/mononeuropathy multiplex	3	4	4	2	
Myopathy	2	2	2		2
Motor neuronopathy (eg, ALS)	4	4	2		2
Plexopathy	2	4	6	2	
Neuromuscular Junction	2	2	2		3
Tarsal tunnel (unilateral)	1	4	4		
Tarsal tunnel (bilateral)	2	5	6		
Weakness, fatigue, cramps, or twitching (focal)	2	3	4		2
Weakness, fatigue, cramps, or twitching (general)	4	4	4		2
Pain, numbness, or tingling (unilateral)	1	3	4	2	
Pain, numbness, or tingling (bilateral)	2	4	6	2	

*Table reprinted with written permission from the AANEM.



Internet access to AANEM recommendations:

<http://www.aanem.org/practiceissues/PositionStatements/positionstatements.cfm>

Billing and Payment:

Billing of electrodiagnostic medicine codes must be in accordance with CPT[®] code definitions and supervision levels. Billing of the technical and professional portions of the codes may be separated. However, the physician billing for interpretation and diagnosis (professional component) must have direct contact with the patient at the time of testing.

Physical therapists (PTs) who meet the requirements of Department of Health rules (WAC 246-915-370) may provide electroneuromyographic tests. PTs performing electrodiagnostic testing must provide documentation of proper DOH licensure to L&I Provider Accounts prior to performing and billing for these services. PT providers may bill for the technical and professional portion of the nerve conduction and electromyography tests performed. **Please contact L&I Provider Accounts at (360) 902-5140 for information on where to send proper license documentation.**

Performance and billing of NCS (including SSEP and H-reflex testing) and EMG that consistently falls outside of the AANEM recommended number of tests (see Table) may be reviewed for quality and 'proper and necessary'.

The department may recoup payments made to a provider, plus interest, for NCS and EMG tests paid inappropriately.

References

American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM). Recommended Policy for Electrodiagnostic Medicine. Updated 2004. Available at: <https://www.aanem.org/documents/recpolicy.pdf>
Last accessed: October 25, 2007.

American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM). Proper performance and interpretation of electrodiagnostic studies. *Muscle Nerve*. Mar 2006;33(3):436-439.

Available at: <https://www.aanem.org/documents/ProperPerformance.pdf> Last accessed: October 25, 2007.

American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM). Who is qualified to practice electrodiagnostic medicine: Position Statement. Available at:
https://www.aanem.org/documents/who_is_qualified.PDF Last accessed: October 25, 2007.

American Physical Therapy Association (APTA). Position Statement on Electrophysiologic Examination and Evaluation June 1985. Available at:

http://search.apta.org/search?q=electrophysiologic+evaluation&ie=&site=apta_collection&output=xml_no_dt_d&client=apta_collection&lr=&proxystylesheet=apta_collection&oe=&x=14&y=20

Aminoff M. Electrophysiology. In: Goetz CG, ed. *Textbook of clinical neurology*. 2nd ed. Philadelphia: W.B. Saunders; 2003:Ch 24.

Centers for Medicare & Medicaid Services (CMS). Medicare Benefit Policy Manual, Publication 100-2, Chapter 15, Section 80. Available at: <http://www.cms.hhs.gov>.

Centers for Medicare & Medicaid Services (CMS). Program Memorandum Carriers Transmittal B-01-28 April 19, 2001. Available at: <http://www.cms.hhs.gov>.

Centers for Medicare & Medicaid Services (CMS). Medicare Carriers Manual Transmittal 1725 Change Request 1756 September 27, 2001. Available at: <http://www.cms.gov>

Washington State Department of Labor and Industries. Health Technology Assessment Brief: Brevio Nerve Conduction System. June 11, 2007. Available at:
<http://www.LNI.wa.gov/ClaimsIns/Files/OMD/BrevioAssessment.pdf>

Washington State Department of Labor and Industries. NC-stat System, Neurometrix, Inc. Technology Assessment; June 8, 2006. Available at: <http://www.LNI.wa.gov/ClaimsIns/Files/OMD/taNCSTAT0506.pdf>

ⁱ AANEM Position Statement (2006) Excerpt: The AANEM strongly recommends that electrodiagnostic procedures be performed by physicians with comprehensive knowledge of neurological and musculoskeletal disorders to assure accurate interpretation and diagnosis. Individuals without medical education in neuromuscular disorders and without special training in electrodiagnostic procedures typically are not qualified to interpret the waveforms generated by NCSs and needle EMGs or to correlate the findings with other clinical information to reach a diagnosis. It is also the AANEM's position that the same physician should directly supervise and interpret the NCSs including those performed by an electrodiagnostic technician.¹ The AANEM believes that interpreting NCSs without performing a focused history and physical and having oversight over the design and performance is inappropriate.

Appendix: CMS Definitions of Supervision levels:

General Supervision - means the procedure is furnished under the physician's overall direction and control, but the physician's presence is not required during the performance of the procedure. Under general supervision, the training of the nonphysician personnel who actually performs the diagnostic procedure and the maintenance of the necessary equipment and supplies are the continuing responsibility of the physician.

Direct Supervision - in the office setting means the physician must be present in the office suite and immediately available to furnish assistance and direction throughout the performance of the procedure. It does not mean that the physician must be present in the room when the procedure is performed.

Personal Supervision - means a physician must be in attendance in the room during the performance of the procedure.