MetroPlus Health Plan

Policy and Procedure

Title: Nerve Conduction Study	Division: Medical Management Department: Utilization Management
Approval Date: 11/9/2018	LOB: Medicaid, Medicare, FIDA, HIV SNP, CHP, MetroPlus Gold, Goldcare I&II, Market Plus, Essential, HARP
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1. POLICY DESCRIPTION:

Nerve Conduction Study

2. RESPONSIBLE PARTIES:

Medical Management Administration, Utilization Management, Integrated Care Management, Pharmacy, Claim Department, Providers Contracting.

3. DEFINITIONS:

a. **Nerve Conduction Study:** Nerve conduction studies are one diagnostic test used by an electrodiagnostic physician. Nerve conduction studies are performed to assess the integrity and diagnose diseases of the peripheral nervous system. Specifically, they assess the speed (conduction velocity, and/or latency), size (amplitude), and shape of the response.
b. **EDX:** Electrodiagnostic (EDX) evaluation is an extension of the neuromuscular portion of the physical examination. EDX evaluations are performed by physicians, exclusively neurologists or physiatrists. An EDX evaluation requires a detailed knowledge of a patient and his/her disease. During an EDX evaluation, physicians typically perform needle electromyography (EMG) and nerve conduction studies (NCSs).
c. **AANEM:** American Association of Neuromuscular & Electrodiagnostic Medicine
d. **ACGME:** Accreditation Council of Graduate Medical Education
e. **Trained**: Completed the relevant components of an ACGME and/or AANEM approved training program.

4. POLICY:

The physician (neurologists or physiatrists) performing an NCS and/or EMG must be trained in the diagnosis and treatment of neurological and neuromuscular diseases and in the application of neurophysiological techniques to study these disorders.

Electrodiagnostic assessment, consisting of EMG, NCS and related measures is considered medically necessary as an adjunct to history, physical exam (PE) and imaging studies with documentation of ALL the following:

1. Signs and symptoms of neuropathy and/or myopathy are present (numbness/tingling, pain, muscle weakness, atrophy, depression of deep tendon reflexes or sensory impairment to pin prick, 2-point discrimination or light touch).

2. Definitive diagnosis cannot be made by history, physical examination, and imaging studies alone.

3. Failure of medically supervised conservative treatment (e.g., rest, analgesics, NSAIDS, physical therapy, if appropriate) specific to the individual's symptoms for 30 days or greater.

EDX (Nerve Conduction Studies) testing is indicated for 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 of skin sensation or "paraesthesia" when appropriate pre-test evaluations are inconclusive.
6. Radiculopathy-cervical, lumbosacral.
7. Plexopathy-idiopathic, traumatic, 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.

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.

5. LIMITATIONS/ EXCLUSIONS:

Nerve Conduction Studies

Each descriptor (code) from codes 95907, 95908, 95909, 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.

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.

Routine testing for polyneuropathy of diabetes or end stage 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.

Psychophysical measurements

Quantitative sensory testing, including but not limited to current perception threshold testing, pressure-specified sensory device testing, vibration perception threshold testing and thermal threshold testing, even though they may involve delivery of a stimulus are 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 Determinations 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 machines with other names.

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. Diagnostic studies that do not provide this information or those that provide delayed interpretation as substitutes for Nerve conduction studies will not be accepted. 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 policy.

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

EMG is not covered in the following clinical situations:

1. Definitive diagnostic conclusions based on paraspinal EMG in regions bearing scar of past surgeries (e.g., previous laminectomies).

2. Pattern-setting limited limb muscle examinations, without paraspinal muscle testing for a diagnosis of radiculopathy.
3. Needle EMG testing shortly after trauma, before needle EMG abnormalities would have reasonable time to develop.
4. Surface and macro EMGs.
5. Multiple uses of needle EMG in the same patient at the same location for the purpose of optimizing botulinum toxin injections.

Maximum Number of Tests Necessary in 90% of Cases Table 1, "Maximum Number of Studies,". Each number in the "Maximum Number of Studies Table" represents 1 study or unit. Testing above this number will require UM review and prior authorization.

maximum numbers in the table will be insufficient for

Table 1: Maximum Number of Studies Table

	Needle EMG, CPT 95860-95870	Nerve Conduction Studies, CPT 95900-95904		Other Electrodiagnostic Studies, CPT 95934-95937	
Indication	Number of Services (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	5	6		
Radiculopathy	2	3	2	2	
Mononeuropathy	1	3	3	2	
Polyneuropathy/Mononeuropathy Multiplex	3	4	4	2	
Myopathy	2	2	2		2
Motor Neuronopathy (e.g., ALS)	4	4	2		2
Plexopathy	2	4	6	2	
Neuromuscular Junction	2	2	2		3
Tarsal Tunnel Syndrome (unilateral)	1	4	4		
Tarsal Tunnel Syndrome (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	

1. APPLICABLE PROCEDURE CODES:

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.

CPT	Description
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
95860	Needle electromyography; 1 extremity with or without related paraspinal areas
95861	Needle electromyography; 2 extremities with or without related paraspinal areas
95863	Needle electromyography; 3 extremities with or without related paraspinal areas
95864	Needle electromyography; 4 extremities with or without related paraspinal areas
95865	Needle electromyography; larynx
95866	Needle electromyography; hemidiaphragm
95867	Needle electromyography; cranial nerve supplied muscle(s), unilateral
95868	Needle electromyography; cranial nerve supplied muscles, bilateral
95869	Needle electromyography; thoracic paraspinal muscles (excluding T1 or T12)
95870	Needle electromyography; limited study of muscles in 1 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
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	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; 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) muscle(s) done with nerve conduction, amplitude and latency/velocity study (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
95937	Neuromuscular junction testing (repetitive stimulation, paired stimuli), each nerve, any 1 method

2. APPLICABLE DIAGNOSIS CODES:

CODE	Description
G50.0-G50.9	Disorders of trigeminal nerve
G51.0-G51.2	Facial nerve disorders
G51.31-G51.39	Clonic hemifacial spasm
G51.4	Facial myokymia
G51.8	Other disorders of facial nerve
G51.9	Disorder of facial nerve, unspecified
G52.0-G52.9	Disorders of other cranial nerves
G53	Cranial nerve disorders in diseases classified elsewhere
G54.0-G54.9	Nerve root and plexus disorders
G55	Nerve root and plexus compressions in diseases classified elsewhere
G56.00-G56.03	Carpal tunnel syndrome
G56.10-G56.12	Other lesions of median nerve

G56.20-G56.23	Lesion of ulnar nerve
G56.30-G56.33	Lesion of radial nerve
G56.40-G56.43	Causalgia of upper limb
G56.80-G56.83	Other specified mononeuropathies of upper limb
G56.90-G56.93	Unspecified mononeuropathy of upper limb
G57.0-G57.03	Lesion of sciatic nerve
G57.10-G57.13	Meralgia paresthetica
G57.20-G57.23	Lesion of femoral nerve
G57.30-G57.33	Lesion of lateral popliteal nerve
G57.40-G57.43	Lesion of medial popliteal nerve
G57.50-G57.53	Tarsal tunnel syndrome
G57.60-G57.63	Lesion of plantar nerve
G57.70-G57.73	Causalgia of lower limb
G57.80-G57.83	Other specified mononeuropathies of lower limb
G57.90-G57.93	Unspecified mononeuropathy of lower limb
G58.0-G58.9	Other mononeuropathies
G59	Mononeuropathy in diseases classified elsewhere
G60.0-G60.9	Hereditary and idiopathic neuropathy
G61.0-G61.1	Inflammatory polyneuropathy
G61.8-G61.9	Other inflammatory polyneuropathies

G62.0-G62.2	Other and unspecified polyneuropathies
G62.8-G62.9	Other specified polyneuropathies
G63	Polyneuropathy in diseases classified elsewhere
G64	Other disorders of peripheral nervous system
G65.0-G65.2	Sequelae of inflammatory and toxic polyneuropathies
G70.00-G70.2	Myasthenia gravis
G70.80	Lambert-Eaton syndrome, unspecified
G70.81	Lambert-Eaton syndrome in disease classified elsewhere
G70.89	Other specified myoneural disorders
G70.09	Myoneural disorder, unspecified
G73.3	Myasthenic syndromes in other diseases classified elsewhere
G72.0-G72.3	Other and Unspecified myopathies
G72.41-G72.49	Inflammatory and immune myopathies, not elsewhere classified
G72.81-G72.9	Other specified myopathies
G73.1	Lambert-Eaton syndrome in neoplastic disease
G73.3	Myasthenic syndromes in other diseases classified elsewhere
G73.7	Myopathy in diseases classified elsewhere
M33.00-M33.09	Dermatopolymyositis
M33.10-M33.19	Other dermatomyositis
M33.20-M33.29	Polymyositis
M33.90-M33.99	Dermatopolymyositis, unspecified
M54.10-M54.18	Radiculopathy
A05.1	Botulism food poisoning
A48.52	Wound botulism

3. REFERENCES:

Proper Performance and Interpretation of Electrodiagnostic Studies. (2014). American Association of Neuromuscular & Electrodiagnostic Medicine. Position Statement

Model Policy for Needle Electromyography and Nerve Conduction Studies. (2014). American Association of Neuromuscular & Electrodiagnostic Medicine. Position Statement.

Recommended Policy for Electrodiagnostic Medicine American Association of Neuromuscular & Electrodiagnostic Medicine. (2004). American Association of Neuromuscular & Electrodiagnostic Medicine. Position Statement.

CMS (2018) Local Coverage Determination (LCD): Nerve Conduction Studies and Electromyography (L35098)

CMS Publication 100-3, Medicare National Coverage Determinations Manual, Chapter 1, Section 160.23

REVISION LOG:

REVISIONS	DATE
Creation date	

Approved:	Date:	Approved:	Date:
Bruce Sosler, MD Clinical Medical Director		Talya Schwartz, MD Chief Medical Officer	

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Medical Guideline Disclaimer:

 The treating physician or primary care provider must submit MetroPlus Health Plan clinical evidence that the patient meets the criteria for the treatment or surgical procedure. Without this documentation and information, Metroplus Health Plan will not be able to properly review the request for prior authorization. The clinical review criteria expressed in this policy reflects how MetroPlus Health Plan determines whether certain services or supplies are medically necessary. MetroPlus Health Plan established the clinical review criteria based upon a review of currently available clinical information(including clinical outcome studies in the peer-reviewed published medical literature, regulatory status of the technology, evidence-based guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant factors). MetroPlus Health Plan expressly reserves the right to revise these conclusions as clinical information changes, and welcomes further relevant information. Each benefit program defines which services are covered. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered and/or paid for by MetroPlus Health Plan, as some programs exclude coverage for services or supplies that MetroPlus Health Plan considers medically necessary. If there is a discrepancy between this guidelines and a member's benefits program, the benefits program will govern. In addition, coverage may be mandated by applicable legal requirements of a state, the Federal Government or the Centers for Medicare & Medicaid Services (CMS) for Medicare and Medicaid members.

All coding and website links are accurate at time of publication.

MetroPlus Health Plan has adopted the herein policy in providing management, administrative and other services to our members, related to health benefit plans offered by our organization.