

 <p>POLICY LIBRARY: MEDICAL</p>	Effective Date:	Approval Date:	Approved By:
	08/07/2008	08/07/2008	MQIC/General Counsel
	Doc. Control #: PRV.MQ.MP.003.001		
	Title/Subject: TMMP 25 - USE OF ELECTRODIAGNOSTIC TESTING		

1. Purpose

The purpose of this policy is to establish medically necessary diagnostic testing standards.

2. Statement of Policy

2.1. Minimum Standards Regarding Electrodiagnostic Testing:

- The provider's records shall include sufficient documentation to support the medical necessity for the requested electrodiagnostic test. This includes documentation of a thorough neurological evaluation which clearly defines the clinical need for electrodiagnostic testing in order to localize and objectify the extent of functional deficit in the central and peripheral nervous system, and how the result of such testing will impact the patient's treatment plan.
- Testing shall be performed using electrodiagnostic equipment that provides assessment of all parameters of the recorded signals. Studies performed with devices designed only for "screening purposes" rather than diagnoses are **not** acceptable under this policy.
- The number of tests performed shall be the minimum needed to establish an accurate diagnosis.
- Electrodiagnostic tests shall be either (a) performed directly by a Provider who is considered certified in electrodiagnostic testing by Triad or (b) performed by a trained individual under the direct supervision of a doctor who demonstrates competency in the ability to advise, guide and evaluate the performance and interpretation of such testing. Direct supervision means that the physician is in close physical proximity to the electrodiagnostic laboratory while testing is underway, is immediately available to provide the trained individual with assistance and direction, and is responsible for selecting the appropriate studies to be performed.
- The reporting of NCS and EMG study results shall be integrated into a unifying diagnostic impression. In contrast, dissociation of NCS and EMG results into separate reports is inappropriate unless specifically explained by the provider. Performance and/or interpretation of NCSs separately from that of the needle

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EMG component of the test should clearly be the exception (e.g., when testing an acute nerve injury).

2.2. Electromyography (EMG) and Nerve Conduction Velocity Studies (NCS):

The use of electrodiagnostic testing is always made on a case-by-case basis consistent with the applicable standards of care. Every electrodiagnostic examination should be justified by meeting the following clinical criteria:

- The electrodiagnostic examination will provide clinically meaningful information which will either alter the patient's prognosis or result in alteration of the management of the patient's condition or complaint.
- The electrodiagnostic examination will be a more useful test than alternative diagnostic procedures.

In general, electrodiagnostic testing is indicated after a trial of conservative treatment has failed to produce adequate improvement. However, there are some clinical presentations (e.g. rapidly progressive neurological deficit) that warrant consideration for earlier electrodiagnostic testing.

Electromyography (needle EMG) and nerve conduction studies (NCS) typically comprise the electrodiagnostic evaluation of function of the motor neurons, nerve roots, the peripheral nerves, the neuromuscular junction and the skeletal muscles. Electromyography and nerve conduction studies may be medically necessary in **any** of the following indications.

2.2.1. For diagnosing neuropathy with sensory loss, weakness and/or muscle atrophy for **any** of the following indications:

- When there is unexplained peripheral neuropathy with pain of a neuropathic pattern, demonstrated sensory or motor loss on physical examination
- When there is neuropathy suspected to be due to trauma.

2.2.2 When test results are expected to guide the management of conditions known to cause neuropathy. These conditions include, but are not limited, to:

- HIV-positive individuals with symptoms of neuropathy

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- Mononeuropathies.
 - Diabetics with persistent or progressive symptoms refractory to conventional treatments
 - Dialysis patients or those considering dialysis.
- 2.2.3. For patients with suspected neural impingement or entrapment whose symptoms are persistent or unresponsive to initial conservative treatments, as indicated by **any** of the following:
- Carpal tunnel syndrome (when clinical documentation shows impingement symptoms refractory to activity modification and at least four (4) weeks of wrist splint use)
 - Ulnar neuropathy at the elbow or wrist (when clinical documentation shows impingement symptoms refractory to activity modification and at least four (4) weeks of elbow pad use)
 - Cervical/lumbar radiculopathy (when clinical documentation shows four to six weeks of failed conservative treatment,
 - Tarsal tunnel syndrome (when clinical documentation shows pain and numbness isolated to the foot)
 - Peroneal palsy with foot drop
 - Suspected brachial or lumbosacral plexus impingement
 - Other peripheral nerve entrapment syndromes.
- 2.2.4 Radiculopathies cannot be diagnosed by NCS alone; needle EMG must be performed to confirm a radiculopathy. Therefore, these studies should be performed together by one (1) provider supervising and/or performing all aspects of the study.
- 2.2.5. In cases of carpal tunnel syndrome or ulnar neuropathy, the requirement for a period of conservative treatment may be waived if the physical exam demonstrates significant atrophy and/or weakness or sensory loss.
- 2.2.6 When there is significant clinical suspicion of **any** of the following conditions:
- Amyotrophic Lateral Sclerosis or Post-Polio syndrome

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- Inflammatory/idiopathic brachial or lumbosacral plexopathy
- Guillain-Barre syndrome or chronic inflammatory neuropathy (CIDP)
- Hereditary neuropathies, (e.g., Charcot-Marie-Tooth disease)
- Hereditary myopathies, (e.g., muscular dystrophy)
- Inflammatory myopathies, (e.g., polymyositis, chronic demyelinating polyneuropathy)
- Diseases of the neuromuscular junction, (e.g., myasthenia gravis, Eaton Lambert syndrome).

2.2.7. Not Medically Necessary: Triad considers Electromyography and Nerve Conduction Studies **not medically necessary** when the criteria listed above are not met, including when used as a screening tool for the general population, in the absence of related symptoms.

2.3. Surface Scanning Electromyography:

Triad considers Surface Scanning Electromyography (sEMG) or paraspinal surface EMG experimental and investigational as a diagnostic test for evaluating neck pain, low back pain, or other thoracolumbar segmental abnormalities such as soft tissue injury, intervertebral disc disease, nerve root irritation and scoliosis, and for all other indications because the reliability and validity of these tests have not been established. As a result, Triad considers the use of Surface Scanning Electromyography (sEMG) **not medically necessary**.

Note: Surface scanning EMG should not be confused with conventional needle EMG, or with the use of surface electrodes in EMG biofeedback techniques, which are considered medically necessary for appropriate indications.

2.4. Quantitative Sensory (QST) Testing & Current Perception Threshold (CPT) Testing:

Triad considers Quantitative Sensory Testing (QST) experimental and investigational for the management of individuals with neuropathy or any other diagnoses because its diagnostic value has not been established. As a result, Triad considers the use of Quantitative Sensory Testing (QST) **not medically necessary**.

Triad considers Current Perception Threshold (CPT) testing experimental and investigational because the effectiveness and clinical applicability of this testing in

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diagnosing and/or managing peripheral neuropathy, radiculopathy or other diseases has not been established. As a result, Triad considers the use of Current Perception Threshold (CPT) testing **not medically necessary**.

3. References

3.1. Scientific:

The following scientific references were utilized in the formulation of this medical policy. Triad Healthcare, Inc. will continue to review clinical evidence surrounding the policy on the use of electrodiagnostic testing and may modify this policy at a later date based upon the evolution of the published clinical evidence. Should additional scientific studies become available and they are not included in the list, please forward the reference(s) to Triad Healthcare, Inc. so the information can be reviewed by the Academic Advisory Committee (AAC) and the Medical Quality Improvement Committee (MQIC) to determine if a modification of the policy is in order.

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3.2. Related Triad Medical Policies:

- [TMMP 18 - Medical Necessity](#)

4. Attachments

- 4.1. [Provider Manual](#)

Table of Revisions

Revision Date	Modified By	Description
08/07/2008	Level 1, 2, 3	Text revised to change title of policy from "Electrodiagnosis" and policy statements for minimum standards for Electrodiagnostic Testing, Nerve Conduction Velocity Studies, Surface Scanning Electromyography, and Quantitative Sensory (QST) Testing & Current Perception Threshold (CPT) Testing. Added references.