

Interpretive Statement

Title:	Electromyography (EMG) – Needle and Surface	MD2000-01
References:	RCW 18.71.011(3)	
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Description of the Issue

Are the practice of needle electromyography (EMG) and taped surface EMG the practice of medicine?

Background Information

The American Association of Electrodiagnostic Medicine (AAEM) posed the above question. They had asked the same question in 1995 and are requesting a current statement of the Medical Quality Assurance's position.

According to AAEM, numerous developments have occurred in the area of EMG in recent years. "In addition to the traditional needle EMG, there is now also a technology called surface EMG. Needle EMG is the study of the insertional, spontaneous, and voluntary electrical activity of muscle, performed by insertion of a needle electrode into the muscle and recording its electrical activity at rest and during voluntary contraction. Needle EMG is used to exclude, diagnose, describe, and follow diseases of the peripheral nervous system and muscles, and has a proven and long established place in the diagnosis and treatment of disorders of nerve and muscle. The accuracy of needle EMG testing is very dependent on the skill of the examiner. The diagnostic interpretation of the needle EMG examination takes place during the performance of the test. For these reasons, the AAEM has long held the position that needle EMG should only be performed by physicians who have comprehensive knowledge of neurological and musculoskeletal disorders to assure accurate interpretation and diagnosis. This position is supported by the American Medical Association, American Academy of Neurology, American Academy of Physical Medicine and Rehabilitation, American Neurological Association, Department of Veterans Affairs, and many state medical examining boards."

“Surface EMG refers to a recording of electrophysiologic signals from skeletal muscles. The recording is made using electrodes placed on the surface of the skin overlying the muscle to be studied, and consists of motor unit action potential discharges. The electrical activity is only observed when the muscle is activated; it does not include any monitoring of externally stimulated muscle activity. Surface EMG is a relatively new technique, particularly in comparison to needle EMG, and many current uses of surface EMG are still considered to be investigational. The AAEM does not currently have a position regarding who may perform surface EMG.”

Analysis

September 14, 1995 Dr. Robert R. Miller, Medical Quality Assurance Commission Medical Consultant wrote on behalf of the Commission:

The Medical Quality Assurance Commission considered the request of your association at the August 24, 1995 meeting. You are referred to the Law Governing Physicians and Surgeons in which the definition of the practice of medicine is stated in RCW 18.71.011(3) the severing or penetrating of human tissue is the practice of medicine, so that the use of needle electrodes (as opposed to taped surface electrodes) would place needle electrode procedures into the medical practice field. The Commission’s rationale is dictated by the wording of the law.

Stakeholders

- Physicians
- Consumers
- Companies that provide electromyography equipment

Position

The Medical Quality Assurance Commission maintains its previous position. The Medical Practice Act, RCW 18.71.011(3) states that severing or penetrating the tissues of human beings is the practice of medicine. Therefore the use of needle electrodes (EMG) is the practice of medicine.

The Medical Quality Assurance Commission declines to take a position on whether taped surface electromyography (EMG) is the practice of medicine.