

STATE MEDICAL BOARD OF OHIO – POLICY STATEMENT

STATEMENT ON ELECTROMYOGRAPHY

July 11, 1990

Revised April 14, 1994; March 15, 2007

This Policy Statement is made by the State Medical Board of Ohio for the purpose of restating to its licensees their continuing obligations under Sections 4731.22(B) and 4731.34, Ohio Revised Code, as they relate to the practice of electromyography. The Board has stated the same position in previous policy statements.

WHAT IS ELECTROMYOGRAPHY?

Electromyography (EMG) falls into two primary categories: needle electromyography testing and nerve conduction testing. Needle electromyography testing involves insertion of needle electrodes into skeletal muscles and concurrent observation of the electrical activity in those muscles by means of a computer digitized display [monitor] and a loudspeaker. Nerve conduction testing is performed using the same equipment, but consists of surface stimulation or needle stimulation of peripheral nerves with an evaluation of the motor and/or sensory action potentials produced.

The purpose of both categories of electromyography is to detect abnormalities of the peripheral neuromuscular system or to determine the extent and degree of recovery of neuromuscular abnormalities – that is, to diagnose.

IS ELECTROMYOGRAPHY THE PRACTICE OF MEDICINE?

Section 4731.34, Ohio Revised Code, defines the practice of medicine in the State of Ohio and provides, in part:

- (A) A person shall be regarded as practicing medicine and surgery, osteopathic medicine and surgery, or podiatric medicine and surgery, within the meaning of this chapter, who does any of the following:

* * *

- (3) In person or, regardless of the person's location, through the use of any communication, including oral, written, or electronic communication, does any of the following:

- (a) Examines or diagnoses for compensation of any kind, direct or indirect;

- (b) Prescribes, advises, recommends, administers, or dispenses for compensation of any kind, direct or indirect, a drug or medicine, appliance, mold or cast, application, operation, or treatment of whatever nature, for the cure or relief of a wound, fracture of bodily injury, infirmity, or disease.

Electromyography is an extension of the history and physical examination and must be considered only in the light of the clinical finding. The person performing electromyography must be able to elicit the pertinent history and perform the necessary examination to define the clinical problems. Differential diagnoses must be considered, and as abnormalities unfold or fail to unfold during the course of testing, the electromyographic procedure may be modified until a probable diagnosis is reached. Results of electromyographic examinations are used for recommending surgical procedures, and for determining the absence of disease with most serious prognoses. In fact, there may exist no better example of an examination or diagnostic procedure fitting within the definition of the practice of medicine in Ohio.

CAN ELECTROMYOGRAPHY BE DELEGATED TO A NONPHYSICIAN?

Though electromyography may appear somewhat similar to electroencephalography (EEG) or electrocardiography (EKG) testing, which involve recording techniques and are routinely delegated to nonphysician technical personnel supervised by specifically trained physicians for later interpretation by those physicians, the electromyographic test procedure itself differs from them as it does not follow any stereotyped pattern.

For example, in assessing a patient with a possible lumbosacral radiculopathy, the needle electromyograph consists of examining muscles of the back, pelvic girdle, and lower extremity innervated by the various lumbar and sacral nerve roots; but the specific parameters of the procedure vary greatly from patient to patient. Although there may exist a relatively routine pattern of muscles to be examined, the number of areas to be examined in each of these muscles, the need to examine other muscles, and not infrequently, the need to examine muscles in other areas of the body depend entirely on the patient's history, symptoms, clinical findings at the time of examination, and electric potentials demonstrated as the test proceeds. It is impossible to formulate standard electromyographic test procedures for the nonphysician to carry out.

Needle electromyographic testing also differs from EEG and EKG testing with respect to the mechanisms utilized for the display of test data. Because of the high frequency electrical potentials demonstrated during the electromyographic testing, direct writing mechanical devices cannot be used to preserve the results. The primary display mechanism is a monitor which must be continuously monitored by the individual doing the procedure. In addition, the sound of the electrical activity displayed on the monitor, as reproduced by the loudspeaker at the same time, can be vitally important. Even if a standard electromyographic test procedure for nonphysicians could be developed and adequate recording devices existed for preservations of the monitor displays and concurrent sounds, it must be remembered that the electrical activity displayed depends on the examiner's actions at a given moment. The exact depth and precise location of the electrode tip must be known in relation to the monitor display and the loudspeaker's sounds. Simply stated, needle explorations can no more be standardized than the test procedure itself.

The impossibility of standardizing electromyography, which includes needle explorations and nerve conduction testing, and the need to consider or reach differential diagnosis during testing itself prevent delegation to nonphysicians.

SUMMARY

In summary, it is the position of the State Medical Board of Ohio that:

- 1) Electromyography is the practice of medicine under Section 4731.34, Ohio Revised Code.
- 2) The delegation of electromyography to a nonphysician is and always has been a departure from, or failure to conform to, minimal standards of care of similar practitioners under the same or similar circumstances as provided in Section 4731.22(B)(6), Ohio Revised Code, and assisting in or abetting the practice of medicine without a certificate as provided in Section 4731.22(B)(20), Ohio Revised Code, and, as applicable, Sections 4731.41, 4731.43, or 4731.60, Ohio Revised Code.

This policy or position statement is only a guideline and should not be interpreted as being all inclusive or exclusive. The Board will review possible violations of the Medical Practices Act and/or rules promulgated hereunder on a case by case basis.

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