

# EVALUATION OF THE MEDICAL USEFULNESS OF ELECTRODIAGNOSTIC REPORTS BY PHYSICIANS NOT PREQUALIFIED TO MEET SET STANDARDS

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**Introduction:** In order for patients to be provided with quality care, it is important that nerve conduction studies (NCSs) and needle electromyography (EMG) be performed and reported in a manner that provides medically useful information to the referring physician. Physicians evaluated and determined to meet a level of quality may provide more medically useful information than physicians not meeting a predetermined quality standard.

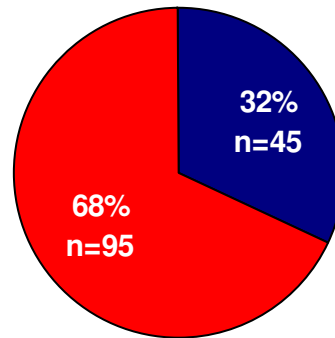
**Objectives:** To evaluate the medical usefulness of the needle EMGs and NCSs performed on injured workers using providers that have not been reviewed and determined to meet a level of quality (hereafter nonprequalified providers).

**Method:** A review of 140 reports was conducted to assess the medical usefulness of the EMG/NCS reports performed by nonprequalified providers. Each report was graded by an American Board of Electrodiagnostic Medicine board certified neurologist who was also certified in clinical neurophysiology. Failure to satisfy medical usefulness was determined by factors included, but not limited to: (1) lack of adherence to American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) guidelines, (2) incomplete examination information, and (3) data inconsistency and unreliability.

**Results:** Out of 140 NCSs/EMG reports reviewed, 95 (68%) were considered not medically useful. In a number of cases, surgery was cancelled due to the quality review results. In some cases, a repeat study was performed by another physician.

**Conclusions:** Within the workers' compensation realm, a significant percentage of unreliable studies are performed. In many cases, treating physicians are utilizing EMG/NCS results that are not medically useful when making treatment decisions. The data suggests that physicians meeting a level of quality and adhering to AANEM guidelines when performing EMGs and NCSs in workers' compensation cases may improve the medical usefulness of EMG and NCS results.

## Evaluation of Reports



■ Medically Useful

■ Medically Not Useful

## Recommended Actions Medically Not Useful EMG & NCS:

- Technical aspect of EMG & NCS is not medically useful. It is recommended that the provider who ordered the study be informed of: inaccurate waveforms (14); inconsistent data (31); incomplete or missing data (15); limited needle EMG (7); insufficient muscle tested (9).
- Technical aspect of EMG & NCS is not medically useful. It is recommended that the study be repeated at a different facility. (40)
- Interpretation of EMG & NCS is not valid. It is recommended that the provider who ordered the study be informed. (5)
- Interpretation of the EMG & NCS is not valid. It is recommended that the study be repeated at a different facility. (40)
- Please attempt to obtain the following missing information, numerical data and/or EMG muscles (12)
- Limb temperature monitoring is not documented on EMG & NCS report. Contact provider who performed test to ascertain if provider monitors temperature. If provider does not monitor temperature, then it is recommended that NCS be repeated with documented temperature control. (34)
- EMG & NCS is of acceptable technical quality but I disagree with interpretation. (22)
- EMG/NCS is of acceptable technical quality and I agree with the interpretation. However, further diagnostic testing may be necessary to confirm the diagnosis. It is recommended that additional nerves and muscles testing be done. (6)
- Technology used to obtain EMG and/or NCS is considered inferior and does not adhere to national guidelines and a standard EMG & NCS that adheres to national guidelines is recommended. (19)