Five Things Physicians and Patients Should Question

1. **Don’t do a needle electromyography (EMG) test for isolated neck or back pain after a motor vehicle accident, as a needle EMG is unlikely to be helpful.**

   Needle EMG for neck pain without arm pain, arm tingling, arm weakness, or arm numbness does not improve outcomes but does increase costs. The same is true of needle EMG for back pain without lower limb pain, lower limb tingling, lower limb weakness, or lower limb numbness. Neck and back pain are both common reasons for physician visits.

2. **Don’t perform dermatomal somatosensory evoked potentials (SEPs) for a pinched nerve in the neck or back, as they are an unproven diagnostic procedure.**

   Although techniques such as needle EMG and nerve conduction studies can be helpful to diagnose pinched nerve in the neck (cervical radiculopathy) or back (lumbar radiculopathy), dermatomal SEP is of unproven worth for this purpose but does increase costs. There are a number of causes of neck, shoulder, and upper limb pain besides cervical radiculopathy. There are also a number of causes of back, hip, thigh, and lower limb pain besides lumbar radiculopathy.

3. **Don’t do a four limb needle EMG/nerve conduction study (NCS) testing for neck and back pain after trauma.**

   Although techniques such as needle EMG and NCS can be helpful to diagnose pinched nerve in the neck or back (cervical or lumbar radiculopathy), four limb needle EMG/NCS is not needed and is not considered appropriate testing but does increase costs. Four limb needle EMG/NCS is, however, rarely needed to evaluate patients for ALS, polyradiculoneuropathy, or multiple mononeuropathies.

4. **Don’t do nerve conduction studies without also doing a needle EMG for testing for radiculopathy, a pinched nerve in the neck or back.**

   For diagnosis of a pinched nerve in the neck or back, nerve conduction studies alone cannot make the diagnosis. Needle EMG is necessary to identify and characterize the disease process.

5. **Don’t do a magnetic resonance imaging (MRI) scan of the spine or brain for patients with only peripheral neuropathy (without signs or symptoms suggesting a brain or spine disorder).**

   Because the vast majority of people with peripheral neuropathy (also called polyneuropathy) have the longest nerves of the body primarily affected (mostly in the toes and feet but sometimes also in the hands), there is essentially no justification for MRI imaging of the brain or spine in these cases.

These items are provided solely for informational purposes and are not intended as a substitute for consultation with a medical professional. Patients with any specific questions about the items on this list or their individual situation should consult their physician.
The mission of the ABIM Foundation is to advance medical professionalism to improve the health care system. We achieve this by collaborating with physicians and physician leaders, medical trainees, health care delivery systems, payers, policymakers, consumer organizations and patients to foster a shared understanding of professionalism and how they can adopt the tenets of professionalism in practice.

To learn more about the ABIM Foundation, visit www.abimfoundation.org.

For more information or to see other lists of Things Clinicians and Patients Should Question, visit www.choosingwisely.org.

How This List Was Created

The Professional Practice Committee (PPC) of the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) developed this list of recommendations. The PPC includes both neurologists and physical medicine and rehabilitation (PMR) physicians who come from varying practice settings and also includes the AANEM’s representatives to the American Medical Association (AMA) Current Procedural Terminology Panel and Relative Value Update Committee. The PPC members identified areas to be included on this list based on the greatest potential for overuse/misuse, quality improvement and availability of strong evidence-based research/support in the literature. The committee’s recommendations were discussed at an AANEM Board meeting that included chairs from AANEM committees. The PPC reviewed the feedback from this group and voted on the final Top Five recommendations. These were then approved by the AANEM Board of Directors.

AANEM’s disclosure and conflict of interest policy can be found at www.aanem.org.

Sources


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About American Association of Neuromuscular & Electrodiagnostic Medicine

The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) was founded in 1953. We are a nonprofit membership association dedicated to the advancement of neuromuscular, musculoskeletal, and electrodiagnostic medicine. Our nearly 4,500 members, neurologists and physiatrists and other allied health professionals and researchers, are working to improve the quality of medical care provided to patients with muscle and nerve disorders.

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