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Guidance for Managing NCS/EMG Testing Requests During COVID-19

With face-to face visits at standstill across most of the country in light of the COVID-19 pandemic, the AANEM has been working on guidance for stratifying electrodiagnostic studies, by acuity and indication, to assist in triaging these procedures. Physician should endeavour to provide care to patients, especially those with urgent problems, and should utilize other means (virtual video or telephone visits) when appropriate. Below are some suggestions to help your practice. It is impossible to address all case scenarios. Each physician must review these guidelines in light of their practice and the geographic area in which they practice. This document is for informational purposes only and DOES NOT CONSTITUTE THE PROVIDING OF MEDICAL ADVICE and is not intended to be a substitute for independent professional medical judgment, advice, diagnosis, or treatment**. Institutional, state, and federal policies, should take precedence over this guidance document.** As the COVID-19 pandemic is rapidly evolving, these suggestions may be revised as the situation changes and new data becomes available.

Outpatient Electrodiagnostic Testing:
(If testing is allowed in your location)

	Urgent	**Non-urgent**	**Possibly urgent**
Description	The clinical presentation is acute, there are significant or rapidly evolving neurological deficits over days to a few weeks, and the electrodiagnostic studies are believed to be necessary for immediate management.	The clinical presentation is chronic (months to years) or improving, there are mild symptoms/signs, or the electrodiagnostic studies are not required for diagnosis or management. Delaying the study is unlikely to result in patient harm.	These are the most challenging. The presentation may not be acute or severe, but progressive over several weeks to a few months, where a prolonged delay in the electrodiagnostic studies could lead to delayed diagnosis and/or treatment, and may result in patient harm.
Possible action	Performing electrodiagnostic studies are appropriate in this situation. Use appropriate precautions as per local institutional guidelines. Must balance risks and benefits/impact of the study.	These electrodiagnostic studies should be postponed.	These electrodiagnostic studies should be triaged on a case-by-case basis, taking into account patient and institutional factors. Speaking directly to the referring physician and reviewing medical records may be necessary. A virtual visit with the patient may assist in decision making.
Examples (not exhaustive or complete)	A patient with rapidly progressive deficits (e.g. generalized weakness, respiratory failure and/or bulbar weakness), where the diagnosis is unclear. In this	Entrapment neuropathies; radiculopathies; genetic disorders that are clear clinically; situations where a clinical diagnosis is relatively clear (and electrodiagnostic	Subacute progressive weakness, gait dysfunction, or sensory symptoms where the electrodiagnostic studies may distinguish mimics or identify potentially treatable disease.

	situation, the electrodiagnostic studies could confirm an unclear diagnosis and lead to specific management.	studies would not alter management).	There may be overlap between this category and the urgent category.
Clinical Suspicion	GBS; New onset MG where delays in obtaining antibody results are judged to be detrimental or dangerous (e.g, severe bulbar weakness, severe generalized weakness, Seronegative MG); Botulism	Carpal tunnel syndrome; radiculopathies; typical length-dependent polyneuropathy; genetically confirmed disorders (e.g. myotonic dystrophy, CMT); Bell's palsy for prognostication	ALS (if clinically unclear and need to exclude treatable condition like MMN); CIDP; Other potentially inflammatory neuropathies (e.g. mononeuropathy multiplex syndrome); brachial and lumbosacral plexopathies/ radiculoplexoneuropathies; Evaluation of respiratory insufficiency; Inflammatory myopathies

Inpatient Electrodiagnostic Testing:

- Consider only if the electrodiagnostic studies are urgent, in a patient with severe neurological symptoms/signs, and in whom the electrodiagnostic studies may establish a diagnosis and/or lead to a specific treatment (similar to above). Examples could include GBS, myasthenia gravis, cauda equina syndrome.
- Inpatient electrodiagnostic studies referrals for chronic conditions, situations where a clinical diagnosis is established or very likely, or in which the electrodiagnostic studies may not lead to a specific alteration of management should be deferred. Examples would include compressive neuropathies and critical illness neuromyopathy. These can be performed in an outpatient setting at a later date.
- Institutional PPE protocols should be followed for all studies.

Equipment Maintenance & Cleaning

- Perform hand hygiene frequently
- Remove all unnecessary and disposable items from machine
- Use antiseptic wipes to clean all surfaces before starting a study and between patients
- Disinfect EMG machine and electrodes per institutional guidelines
- Consider using disposable electrodes
- Consider clear plastic bag to cover EMG equipment

Screening Issues

- For nonurgent patients, if electrodiagnostic studies are requested/performed, it is recommended that physicians screen the patient for possible COVID -19. If it is suspected, send the patient home with information to contact their primary care physician for next steps.
- For urgent or potentially urgent patients, if electrodiagnostic studies are requested/performed, it is recommended that physicians screen for possible COVID -19. If it is suspected, use your institution's or practice PPE guidelines.

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This Clinical Guidance ("Guidance") is provided for informational and educational purposes only. It is intended to offer physicians guidance regarding best practices in caring for and treating patients infected by COVID-19. Adherence to any recommendations included in this Guidance will not ensure successful treatment in every situation. Furthermore, the recommendations contained in this Guidance should not be interpreted as setting a standard of care, or be deemed inclusive of all proper methods of care nor exclusive of other methods of care reasonably directed to obtaining the same results.

The ultimate judgment regarding the propriety of any specific therapy must be made by the physician and the patient in light of all the circumstances presented by the individual patient, and the known variability and biological behavior of the medical condition.

This Guidance and its conclusions and recommendations reflect the best available information at the time the Guidance was prepared. The results of future studies may require revisions to the recommendations in this Guidance to reflect new data.

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