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VERSION 1.0

DEFINITION

Neuromuscular Medicine is the area of enhanced competence within Neurology and Physical Medicine and Rehabilitation concerned with the evaluation and management of adult and pediatric patients with disorders of the motor neuron, nerve root, peripheral nerve, neuromuscular junction, and muscle.

GOALS

Upon completion of training, a diplomate is expected to function as a competent specialist in Neuromuscular Medicine, capable of an enhanced practice in this area of focused competence (AFC) within the scope of Neurology and Physical Medicine and Rehabilitation. The AFC trainee must acquire a working knowledge of the theoretical basis of the discipline, including its foundations in science and research, as it applies to medical practice.

The discipline of Neuromuscular Medicine includes responsibility for the following:

1. Diagnosis of neuromuscular disorders
2. Interpretation of neuroelectrophysiological studies
3. Management of neuromuscular disorders
4. Coordination of collaborative care for patients with neuromuscular disorders
5. Evaluation of diagnostic tests and therapies for neuromuscular disorders, including new tests and therapies, and facilitation of access
6. Advancement of the field of Neuromuscular Medicine through scholarship and education

NOTES:

All markers must be signed off by supervisor prior to being added to the portfolio.

All cases or clinical material added to the portfolio must be de-identified to preserve patient privacy. This requires the removal of key identifiers, including name, birth date, and date of consultation.

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All reports (e.g., reports of neuroelectrophysiological studies) added to the portfolio must include an attestation from the reporting physician that the report was not altered from the AFC trainee's interpretation.

Diplomates must demonstrate the requisite knowledge, skills, and behaviours for effective patient-centred care and service to a diverse population. In all aspects of specialist practice, the diplomate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, beliefs, and ethnicity in a professional manner.

At the completion of training, the AFC trainee must demonstrate evidence of acquisition of the competencies listed on the following pages.

Major Task 1

Diagnosis of neuromuscular disorders

Sub-task

1.1 Perform a comprehensive clinical assessment of patients with neuromuscular disorders, including the interpretation of results of diagnostic investigations

This includes

- performing a clinical assessment and diagnosing patients presenting with acute and chronic neuromuscular disorders, including patients with abnormal test results
- managing resources responsibly
- identifying indications for diagnostic investigations
- ordering the appropriate testing modalities in a timely manner, including imaging, genetic testing, standard laboratory testing, nerve and muscle biopsies, and neuroelectrophysiological studies
- identifying the potential extra-neuromuscular manifestations
- integrating electromyography (EMG) findings into the assessment and diagnosis of the patient
- communicating the diagnosis clearly and responding to patient and family questions and concerns

Evidence of achievement

5 of the following in any combination:

- observation form
- consultation note

The case mix must include all of the following:

- 1 motor neuron disorder
- 1 nerve root disorder
- 1 peripheral nerve disorder
- 1 neuromuscular junction disorder
- 1 muscle disorder

The case mix may have fewer than 5 patients; a single patient may be included for more than one of the disorders listed.

The case mix, which can overlap with the cases listed directly above, must also include

- 1 pediatric patient
- 1 adult patient
- 1 hereditary disorder
- 1 acquired disorder

Major Task 2

Interpretation of neuroelectrophysiological studies

Sub-task

2.1 Report the results of nerve conduction and electromyography (EMG) studies

This includes

- interpreting and producing reports for nerve conduction and EMG studies
- localizing the problem to the motor neuron, nerve root, peripheral nerve, neuromuscular junction, or muscle

Evidence of achievement

5 reports of nerve conduction and EMG studies

The case mix must include pathology localized in the following:

- 1 motor neuron
- 1 nerve root
- 2 peripheral nerves, including at least 1 focal neuropathy
- 1 neuromuscular junction
- 1 muscle

Major Task 3

Management of neuromuscular disorders

Sub-tasks

- 3.1 Develop a comprehensive management plan for patients with newly diagnosed neuromuscular disorders
- 3.2 Modify an ongoing management plan for patients with known neuromuscular disorders

3.1 Develop a comprehensive management plan for patients with newly diagnosed neuromuscular disorders

This includes

- developing a management plan that includes, as appropriate to the patient's diagnosis and clinical status, consideration of disease-modifying therapies, symptomatic treatment, and rehabilitation therapy
- developing a plan to monitor treatment efficacy and adverse effects
- providing referral to members of the rehabilitation team, when appropriate, with a clear request for consultation that may include rehabilitation therapy and/or assistive devices
- developing a plan for the monitoring of disease progression and surveillance for extra-neuromuscular manifestations
- demonstrating stewardship in the utilization of evidence-based therapies for neuromuscular disorders and judicious use of resources (e.g., intravenous immunoglobulin [IVIG])
- reporting to appropriate neuromuscular disease registries
- patient counselling regarding
 - reproductive health
 - the effect of the disorder on independent living, including driving
 - physical activity and exercise
 - decisions about goals of care, including discussing and implementing palliative care and making referral to medical assistance in dying (MAID) when requested
- genetic counselling as appropriate, including discussing the genetics involved in specific diseases, identifying implications for extended family, and making recommendations for neuromuscular evaluation and genetic testing

Evidence of achievement

5 of the following in any combination:

- observation form
- consultation note

The case mix must include all of the following:

- 1 motor neuron disorder
- 1 nerve root disorder
- 1 peripheral nerve disorder
- 1 neuromuscular junction disorder
- 1 muscle disorder

The case mix, which can overlap with the cases listed directly above, must also include

- 1 pediatric patient
- 1 adult patient
- 1 hereditary disorder
- 1 acquired disorder

3.2 Modify an ongoing management plan for patients with known neuromuscular disorders

This includes

- assessing the patient's response to current treatment, including clinical evaluation, investigations, and the use of outcome measures
- assessing the patient for presence of adverse effects or toxicities of treatment
- developing a modification of a management plan
- providing referral to members of the rehabilitation team, when appropriate, with a clear request for consultation that may include rehabilitation therapy and/or assistive devices
- developing a plan for the monitoring of disease progression and surveillance for extra-neuromuscular manifestations
- demonstrating stewardship in the utilization of therapies for neuromuscular disorders

Evidence of achievement

5 of the following in any combination:

- observation form
- consultation note

The case mix must include all of the following:

- 1 motor neuron disorder
- 1 nerve root disorder
- 1 peripheral nerve disorder
- 1 neuromuscular junction disorder
- 1 muscle disorder

The case mix, which can overlap with the cases listed directly above, must also include

- 1 pediatric patient
- 1 adult patient
- 1 hereditary disorder
- 1 acquired disorder

Major Task 4

Coordination of collaborative care for patients with neuromuscular disorders

Sub-task

4.1 Lead interdisciplinary team meetings to coordinate the care of complex patients

This includes

- presenting cases to interdisciplinary teams for discussion
- participating in shared decision-making that synthesizes and integrates input from other members of the team
- coordinating interdisciplinary care of patients with neuromuscular disorders
- writing a summary of care discussion and decisions

Evidence of achievement

4.1a 2 of each of the following:

- observation form
- care discussion summary

and

4.1b Collated multisource feedback

The multisource feedback must be received from at least 3 health professionals, including at least 1 physician and 1 member of the interprofessional team

Major Task 5

Evaluation of diagnostic tests and therapies for neuromuscular disorders, including new tests and therapies, and facilitation of access

Sub-task

5.1 Evaluate diagnostic tests and therapies, including those that are new, and facilitate access

This includes

- conducting critical appraisal of evidence for new diagnostic tests and therapies for rare diseases
- identifying appropriate options and eligibility criteria for new diagnostic tests and therapies
- completing documentation to request access to new therapies and diagnostic tests

Evidence of achievement

1 of each of the following:

- review of documentation submitted for access to a new therapy
- review of documentation submitted for access to a diagnostic test
- evaluation of a journal club presentation appraising the evidence for a new therapy or diagnostic test

Major Task 6

Advancement of the field of Neuromuscular Medicine through scholarship and education

Sub-tasks

- 6.1 Participate in scholarly work related to Neuromuscular Medicine
- 6.2 Teach topics related to Neuromuscular Medicine to a variety of audiences

6.1 Participate in scholarly work related to Neuromuscular Medicine

This includes the application of a scholarly approach to clinical care, education, research, or quality improvement.

Evidence of achievement

1 of any of the following:

- abstract accepted for presentation at a national or international conference
- completed manuscript
- research proposal or grant application suitable for submission to peer review
- completed quality improvement project

6.2 Teach topics related to Neuromuscular Medicine to a variety of audiences

This includes

- literature review
- critical appraisal
- effective presentation

Evidence of achievement

Collated evaluations of 2 formal teaching activities on 2 different topics

The target audiences must include at least 2 of the following groups:

- practising physicians
- residents
- medical students
- other health care professionals
- members of the public

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