

University of Kentucky Department of Neurology

Neuromuscular Rotation

Introduction

This rotation is designed to provide the house officer with complete exposure to a wide array of neuromuscular diseases and their investigation and treatment. This rotation also provides for extensive experience with electrophysiology and the resident will spend considerable time in the EMG lab performing and interpreting EMG/NCV studies. Since the study of these diseases is almost completely within the domain of the neurologist, this rotation is extremely important to the overall training program of the house officer.

PRINCIPLE EDUCATIONAL GOALS GROUPED BY COMPETENCY

I. PATIENT CARE

1. Interview patients more skillfully.
2. Examine patients more skillfully.
3. Improve history taking of patients with neuromuscular diseases.
4. Improve ability to accurately diagnose and manage patients with neuromuscular diseases.
5. Learn the utility of the EMG/PNCV in the diagnosis of neuromuscular disease.
6. Identify patients in need of inpatient care for neuromuscular illness.
7. Define and prioritize patients' neurological and medical problems and how medical problems impact the patient's neurological illness.
8. Improve clinical ability to anticipate, prevent and treat complications of neuromuscular disease.
9. Improve interactions with patients and families who have genetically-based diseases.
10. Improve efficiency of care of patients.

II. MEDICAL KNOWLEDGE

1. Improve basic neurological knowledge base.
2. Expand clinical knowledge base regarding neuromuscular diseases including but not limited to neuropathies, myopathies, anterior horn cell diseases, movement disorders and disorders of the neuromuscular junction.
3. Become proficient with peripheral neuroanatomy and nerve/muscle physiology.
4. Improve understanding of medical/social issues regarding genetically-based diseases.
5. Improve understanding of basic neurophysiology of peripheral nerve conduction studies and electromyography.
6. Understand the technical aspects of performing EMG/NCV.
7. Improve EMG/NCV interpretation skills.
8. Improve understanding of the use of BOTOX for treatment of dystonic/spastic disorders.
9. Improve understanding and use of ultrasound in the evaluation of nerve and muscle disease

10. Access and critically evaluate current medical information and scientific evidence relevant to patient care.

III. PRACTICE-BASED LEARNING AND IMPROVEMENT

1. Identify and acknowledge gaps in personal knowledge and skills in the care of patients with neuromuscular disease.
2. Develop and implement strategies for filling in gaps in knowledge and skills.

IV. INTERPERSONAL SKILLS AND COMMUNICATION

1. Communicate effectively with patients and families.
2. Improve communication skills and sensitivity to patients with genetically-based diseases.
3. Communicate effectively with physician colleagues at all levels.
4. Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.
5. Present patient information concisely and clearly, verbally and in writing.
6. Improve skills in crafting suitable reports of diagnostic tests.
7. Teach colleagues and medical students effectively.

V. PROFESSIONALISM

1. Demonstrate respect, compassion and integrity when dealing with patients and families.
2. Demonstrate sensitivity and respect for patients' age, culture, race, gender and religious beliefs.
3. Demonstrate a commitment to ethical principles of providing or withholding care, patient confidentiality and informed consent, and business practices.
4. Demonstrate a commitment to carrying out professional duties including punctuality, reliability, chart maintenance and independent learning and professional development.
5. Demonstrate professional respects for superiors, colleagues, students and all members of the health care team.

VI. SYSTEMS-BASED PRACTICE

1. Understand and utilize the multidisciplinary resources necessary to care optimally for patients with neuromuscular disease.
2. Understand the impact that having a severe and/or progressively degenerative disease has on a patient's ability to function in our society, especially regarding employment.
3. Collaborate with other members of the health care team to assure comprehensive patient care.
4. Use evidence-based, cost-conscious strategies in the care of hospitalized patients.
5. Understand the long-term consequences of patient care in relation to the individual's socioeconomic status.

Duties

1. Residents will attend the neuromuscular, ALS, MDA and movement disorder clinics as scheduled, and will work with the attendings as indicated on the assignment schedule.
2. The house officer will learn how to perform an EMG and how to accurately integrate those findings into a complete report.
3. The house officer will assist with patient presentations at the monthly neuromuscular conference.
4. During weeks 1-4 of the rotation, the house officer will learn to obtain a directed neuromuscular history and physical, discuss a diagnostic plan with the attending physician, demonstrate standard upper extremity and lower extremity nerve conduction study techniques under supervision, learn normal nerve conduction values, and learn peripheral nerve anatomy.
5. For weeks 5-8, the house officer will perform EMG examinations under supervision, will learn the interpretation of normal/abnormal EMG findings, and master myotome innervation.
6. In weeks 9-12, the house officer will design appropriate NCS/EMG studies and present to the attending that design.