

**University of Michigan Health System
Internal Medicine Residency
Neurology Consultation Elective Curriculum**

Version date: 3/29/2010

Subspecialty Education Coordinator: Zachary London, M.D.

Faculty curriculum author: Cara McDonagh, M.D.

Rotation Goals and Educational Purpose

A basic understanding of the field of neurology is essential for an effective internist. The goal of the neurology rotation is to refine the physician's approach to common neurological problems, as well as to provide opportunities to diagnose, evaluate, and manage more complex neurological disorders. These patients may have acute strokes; seizures, including status epilepticus; neuromuscular weakness; primary brain tumors; movement disorders; autoimmune diseases such as CNS lupus or multiple sclerosis; and primary psychiatric disorders. The rotation will help residents perform an efficient yet complete neurological exam. Procedures performed during the rotation are lumbar punctures and occasionally arterial and central lines.

This rotation is elective for residents at the HO2/3 levels.

Rotation Competency Objectives

The following provide an overview of the knowledge, skills, and behaviors promoted in this rotation. By completion of the rotation, residents will:

- I. Patient Care and Medical Knowledge**
 - a. Take a thorough neurological history and perform a detailed neurological examination.
 - b. Understand basic neuroanatomic localization.
 - c. Be able to diagnose and treat many basic neurological problems, with an emphasis on acute neurological complications of systemic disease and of surgical procedures.
 - d. Effectively use neuroimaging studies and electroencephalography.
 - e. Interpret laboratory studies, including cerebrospinal fluid results.
 - f. Recognize the relationship between neuroscience research and clinical neurology.

- II. Interpersonal and communication skills:**
 - a. Work as a part of a team to deliver neurological care.
 - b. Establish rapport and collaborate with patients, families, and health professionals.
 - c. Recognize and manage the neurological complications of other medical and surgical conditions.
 - d. Demonstrate communication skills (including listening) that support respectful, culturally-competent, and patient-centered care.

- e. Educate patients, families, and caregivers in the treatment of neurological disorders.
6. Document patient visits in a timely manner using standard documentation.

III. Professionalism:

a. Demonstrate a commitment to professional, ethical, and culturally-competent behavior.

IV. Practice-Based Learning and Improvement:

a. Utilize information technology to enhance the residents' own knowledge, as well as that of their patients.

b. Learn from error, using scientific evidence for self-education and to improve patient care.

V. Systems-Based Practice:

1. Understand the role of a consulting neurologist within the larger context of a complex healthcare team.

2. Recognize situations where the input of more experienced neurologists is needed.

3. Practice quality health care that is cost-effective.

4. Advocate for patients within the health system.

5. Constructively work with medical assistants, nurses, and staff.

VI. Teaching Methods

1. Supervised patient care with neurology consult patients

a. The rotation focuses on experiential learning through consultative management of ambulatory and hospitalized patients. Residents are under the full supervision of a faculty physician. Residents will independently evaluate a patient then present to a supervising faculty physician. Patient-centered, case-based faculty discussions review each patient. The supervising faculty physician works with the resident to develop a diagnostic and therapeutic plan. Residents also work cooperatively with neurology residents and fellows. Residents should consider all supervised patient care interactions as opportunities for education.

b. Patients present from a broad range of age and socioeconomic backgrounds.

2. Independent reading and self-directed learning.

a. Recommended reading: "Introduction to Clinical Neurology" by Doug Gelb

b. Additional online resources for independent study:

1) American Academy of Neurology Practice Guidelines:

<http://www.aan.com/go/practice/guidelines>

2) NIH/NINDS: <http://www.ninds.nih.gov/index.htm>

3) Residents are encouraged to access the Johns Hopkins Internet Learning Center modules: <http://www.hopkinsilc.org>

VII. Evaluation Methods: Learning goals are established with each resident by the attending at the beginning of the rotation. Formative face-to-face feedback to residents by the attending occurs at the end of the rotation. Informal feedback will also occur during

patient evaluations. The neurology attendings complete online competency-based evaluations of each resident. The evaluation is shared with the resident, available for on-line review by the resident, and sent to the residency office for internal review. The evaluation is part of the resident file and is incorporated into semi-annual performance reviews for directed resident feedback. Residents also complete a service evaluation of the rotation and rotation faculty at the end of the rotation.

Rotation Schedule

Everyday: Report to the Neurology Residents’ Room (Taubman 1915) by 8am, Monday-Friday. Be available to see new and follow-up consultations in the ER and in the hospital until at least 5pm. This rotation does not include overnight call or weekend duties.

	Monday	Tuesday	Wednesday	Thursday	Friday
AM			7:30am EMG Introductory Conference (not required) 8am Neuromuscular Conference (not required) 9am Neuromuscular Pathology (not required)	7:30am Stroke Morning Report (not required)	8am Neuropathology, Neuroanatomy, or Neuroradiology (not required)
	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i> 10 am Neuro Patient Conference (required) 11 am Neuro Grand Rounds (required)	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>
PM	12pm Neuro journal club/ethics club (required) OR Stroke/Epilepsy Conference (not required)	12pm Basic Neuroscience Conference (required)		12pm Clinical Neurology Conference (required)	12pm Medicine Grand Rounds OR Localization Rounds, Neuroradiology (not required)
	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>	<i>Consultations and follow-up patient care (or continuity clinic)</i>