

CURRICULUM ON NEUROLOGY
TEMPLE UNIVERSITY INTERNAL MEDICINE RESIDENCY PROGRAM

Revision date: October 2009

I. Educational Purpose and Goals

The purpose of this rotation is to provide clinical knowledge in neuroscience for internal medicine residents. Internists must be able to evaluate and assess patients with neurological complaints. Residents are, therefore, expected to competently perform a neurological examination and localize a lesion, formulate a differential diagnosis for the lesion, understand the basic laboratory and imaging evaluation of the neurological lesion, and understand the pathophysiology and natural history of common neurological lesions. In this rotation, residents will be exposed to a variety of problems that are frequently seen by internists and learn about diseases more frequently seen by subspecialty neurologists.

II. Principal Teaching Methods

- a. Supervised Direct Patient Care Activities
 - i. Neurological consultations will be performed by the residents and teaching neurologist on the service. Residents learn the practical aspects of performing a consultation by observing the teaching neurologist.
- b. Didactic Lectures
- c. Neurology Grand Rounds are held weekly with presentations by neurologists, visiting faculty and neurology residents. In attendance are the practicing neurologists, neurosurgeons, psychiatrists, and residents on the service.
- d. Assigned Readings - It is expected that each resident will read and study independently on their patients seen in consultation.
- e. Structure of rotation
 - i. The rotation is a 1-week block integrated with the internal medicine consult rotation.
 - ii. Residents continue to attend mandatory Internal Medicine conferences and continuity clinic.

III. Rotation Specific Competency Objectives

- a. Patient Care
 - i. Residents should demonstrate a basic understanding of the competent neurological examination, including:
 - a. Mental status: language, memory, attention/concentration, affect, intellect
 - b. Cranial nerves

- c. Motor exam including details on bulk, strength and tone
- d. Reflex exam including stretch and pathological reflexes
- e. Detailed sensory examination
- f. Coordination and gait and balance

ii. The resident will demonstrate ability to develop a rational clinical approach to solving basic clinical neurological problems including stupor and coma, seizures, tremor, weakness, dizziness, syncope, vertigo, sensation changes, dementia and delirium, paralysis, headaches, changes in vision or other sensory organs

iii. The resident will demonstrate satisfactory skills in clinical documentation of neurologic complaints and general evaluations in the medical record.

b. Medical Knowledge

i. Residents should demonstrate understanding of neuroanatomy sufficient to localize neurologic lesions.

ii. By completion of the rotation, the resident must reflect an understanding of the differential diagnosis and natural history of common neurological issues (see above list).

iii. The residents will demonstrate understanding of the indications, basic techniques, and basic interpretation of the lumbar puncture and CSF analysis, carotid Dopplers, neuro-imaging including CT scans MRI scans PET scans, EMG and nerve conduction studies, EEG and evoked potential studies, metabolic testing, testing for autoimmune neurological diseases

iv. The residents will understand the pathophysiology, clinical presentations, and achieve competence in the diagnosis and treatment of stroke, TIA/ RIND, meningitis- both acute and chronic, Alzheimer's disease and other causes of dementia, alcohol and drug related neurological disorders, seizure disorder, parkinsonism and other movement disorders, MS and other demyelinating diseases, carpal tunnel and other entrapment syndromes, CNS tumors and malignancy, peripheral neuropathy and radiculopathies, migraines and other causes of headaches, Guillian-Barre Syndrome, ALS and other motor neuron diseases, peripheral neuropathy, myopathy, muscular dystrophy, myasthenia gravis and other dystonias and Neuro AIDS

v. Residents will reflect satisfactory knowledge of the use of specific neurological drugs.

c. Interpersonal and Communication Skills

- i. Residents will appropriately work with other neurological residents and show respect and ability to work well in a team setting
- ii. Residents will create and sustain a therapeutic and ethically sound relationship with patients and their families.
- iii. Residents will demonstrate ability to communicate effectively and demonstrate caring, compassionate, and respectful behavior.

d. Professionalism

- i. Residents will demonstrate respect, compassion, and integrity. They will demonstrate commitment to excellence and continuous professional development.

e. Practice Based Learning and Improvement

- i. Residents will be able to locate, critically appraise, and assimilate evidence from scientific studies and apply this knowledge to patients seen on the neurology consultation service.
- ii. Residents will demonstrate ability to use information technology to manage information, access on-line medical resources, and support self-education, patient care decisions and patient education.

f. Systems Based Practice

- i. Residents will practice cost-effective health care and resource allocation while advocating for quality.
- ii. Residents will productively and cooperatively participate in Multidisciplinary Treatment Planning.

Adapted from curricula developed by Michigan State University department of Medicine