

**Rotation:  
Neurology Selective**

**Goals:**

1. Achieve competency in the diagnosis and management of neurological conditions commonly encountered in the practice of general internal medicine.
2. Identify conditions requiring either urgent or non-urgent consultation with neurological specialists.

**Objectives:**

By the end of the Neurology Selective, PGY-1 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate proficiency in obtaining a neurological history and performing a neurological examination.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Distinguish neurological from non-neurological complaints	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Localize the lesion anatomically	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Formulate a rational differential diagnosis, order appropriate laboratory and diagnostic tests, and effectively manage patients	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Recognize neurological emergencies and call for help when needed	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam	

			Procedure Log	
	Interpret EEG, EMG and NCS, sleep studies, CT, MRI/MRA, myelogram, carotid ultrasound, and angiography reports correctly and apply properly to patient care	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Demonstrate a basic knowledge of neuroanatomy permitting interpretation of at least non-contrasted and contrasted CT scans	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Perform at least five lumbar punctures, order the appropriate tests on the CSF, and correctly interpret the results	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Describe how to perform and interpret the Tensilon test	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
Medical Knowledge	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate scholarship by citing references.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Identify the pathophysiology associated with each clinical condition encountered.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Read and demonstrate knowledge about the following clinical neurological presentations: <ul style="list-style-type: none"> <li>• Abnormal speech</li> <li>• Abnormal vision</li> <li>• Altered sensation</li> </ul>	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam	

	<ul style="list-style-type: none"> <li>• Confusion</li> <li>• Disturbed coordination/gait</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Hearing loss</li> <li>• Localized pain syndromes</li> <li>• Loss of consciousness and coma</li> <li>• Memory impairment</li> <li>• Seizures</li> <li>• Sleep disorders</li> <li>• Tremor</li> <li>• Weakness-focal and generalized</li> </ul>		Procedure Log	
Practice Based Learning and Improvement	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate self-learning by reading textbook chapters and journal articles and applying this information to current patient care.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Use errors to improve the system or processes of care	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate use of information technology to access patient care information and to enhance both patient and physician education.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Internal medicine residents on neurology at the end of the month are expected to help update the ward and ambulatory syllabi sections on neurology for the benefit of all housestaff.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Interpersonal and Communication Skills	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Write a legible history and physical examination and	Clinical Teaching	ABIM Global Assessment	

	provide concise, but substantive daily progress notes using the SOAP format.	Conferences	Form Written Exam Procedure Log	
	Write prescriptions that are legible and timely.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Dictate substantive discharge summaries in a timely fashion.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Communicate effectively with patients and families, consultants, and other health care professionals. This includes concise oral presentations on rounds.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Teach medical students effectively by establishing a positive mentoring relationship with appropriate feedback	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Provide effective and professional consultation to other physicians and health care professionals. Consults should be done promptly, enthusiastically, and educationally.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Professionalism	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate respect, compassion, integrity, altruism, and enthusiasm in relationships with patient, families, and colleagues.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	

	Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disabilities of patients and professional colleagues	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate adherence to the principles of confidentiality, scientific/academic integrity, and informed consent	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Recognize and identify deficiencies in peer performance.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Systems-Based Practice	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Access and utilize the resources, providers, and systems necessary to provide optimal care including case management, physicians' action line, and various laboratories.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Develop strategies to optimize care for the individual patient given the limitations of insurance coverage and hospital and clinic resources.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	

By the end of the Neurology Selective, PGY-2 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate proficiency in obtaining a neurological history and performing a neurological examination.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam	

			Procedure Log	
	Distinguish neurological from non-neurological complaints	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Localize the lesion anatomically	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Formulate a rational differential diagnosis, order appropriate laboratory and diagnostic tests, and effectively manage patients	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Recognize neurological emergencies and call for help when needed	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Interpret EEG, EMG and NCS, sleep studies, CT, MRI/MRA, myelogram, carotid ultrasound, and angiography reports correctly and apply properly to patient care	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Demonstrate a basic knowledge of neuroanatomy permitting interpretation of at least non-contrasted and contrasted CT scans	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Perform at least five lumbar punctures, order the appropriate tests on the CSF, and correctly interpret the results	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	

	Describe how to perform and interpret the Tensilon test	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Medical Knowledge	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate scholarship by citing references.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Identify the pathophysiology associated with each clinical condition encountered.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Read and demonstrate knowledge about the following clinical neurological presentations: <ul style="list-style-type: none"> <li>• Abnormal speech</li> <li>• Abnormal vision</li> <li>• Altered sensation</li> <li>• Confusion</li> <li>• Disturbed coordination/gait</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Hearing loss</li> <li>• Localized pain syndromes</li> <li>• Loss of consciousness and coma</li> <li>• Memory impairment</li> <li>• Seizures</li> <li>• Sleep disorders</li> <li>• Tremor</li> <li>• Weakness-focal and generalized</li> </ul>	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Practice Based Learning and Improvement	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate self-learning by reading textbook chapters and journal articles and applying this information to current patient care.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam	

			Procedure Log	
	Use errors to improve the system or processes of care	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate use of information technology to access patient care information and to enhance both patient and physician education.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Internal medicine residents on neurology at the end of the month are expected to help update the ward and ambulatory syllabi sections on neurology for the benefit of all housestaff.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Interpersonal and Communication Skills	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Write a legible history and physical examination and provide concise, but substantive daily progress notes using the SOAP format.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Write prescriptions that are legible and timely.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Dictate substantive discharge summaries in a timely fashion.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Communicate effectively with patients and families, consultants, and other health care professionals. This includes concise oral presentations on rounds.	Clinical Teaching Conferences	ABIM Global Assessment Form	

			Written Exam Procedure Log	
	Teach medical students effectively by establishing a positive mentoring relationship with appropriate feedback	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Provide effective and professional consultation to other physicians and health care professionals. Consults should be done promptly, enthusiastically, and educationally.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Professionalism	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate respect, compassion, integrity, altruism, and enthusiasm in relationships with patient, families, and colleagues.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disabilities of patients and professional colleagues	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate adherence to the principles of confidentiality, scientific/academic integrity, and informed consent	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Recognize and identify deficiencies in peer performance.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Systems-Based Practice	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a			

	comprehensive list.			
	Access and utilize the resources, providers, and systems necessary to provide optimal care including case management, physicians' action line, and various laboratories.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Develop strategies to optimize care for the individual patient given the limitations of insurance coverage and hospital and clinic resources.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	

By the end of the Neurology Selective, PGY-3 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate proficiency in obtaining a neurological history and performing a neurological examination.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Distinguish neurological from non-neurological complaints	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Localize the lesion anatomically	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Formulate a rational differential diagnosis, order appropriate laboratory and diagnostic tests, and effectively manage patients	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam	

			Procedure Log	
	Recognize neurological emergencies and call for help when needed	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Interpret EEG, EMG and NCS, sleep studies, CT, MRI/MRA, myelogram, carotid ultrasound, and angiography reports correctly and apply properly to patient care	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate a basic knowledge of neuroanatomy permitting interpretation of at least non-contrasted and contrasted CT scans	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Perform at least five lumbar punctures, order the appropriate tests on the CSF, and correctly interpret the results	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Describe how to perform and interpret the Tensilon test	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Medical Knowledge	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	Demonstrate scholarship by citing references.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Identify the pathophysiology associated with each clinical condition encountered.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	

	<p>Read and demonstrate knowledge about the following clinical neurological presentations:</p> <ul style="list-style-type: none"> <li>• Abnormal speech</li> <li>• Abnormal vision</li> <li>• Altered sensation</li> <li>• Confusion</li> <li>• Disturbed coordination/gait</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Hearing loss</li> <li>• Localized pain syndromes</li> <li>• Loss of consciousness and coma</li> <li>• Memory impairment</li> <li>• Seizures</li> <li>• Sleep disorders</li> <li>• Tremor</li> <li>• Weakness-focal and generalized</li> </ul>	<p>Clinical Teaching Conferences</p>	<p>ABIM Global Assessment Form Written Exam Procedure Log</p>	
Practice Based Learning and Improvement	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate self-learning by reading textbook chapters and journal articles and applying this information to current patient care.	<p>Clinical Teaching Conferences</p>	<p>ABIM Global Assessment Form Written Exam Procedure Log</p>	
	Use errors to improve the system or processes of care	<p>Clinical Teaching Conferences</p>	<p>ABIM Global Assessment Form Written Exam Procedure Log</p>	
	Demonstrate use of information technology to access patient care information and to enhance both patient and physician education.	<p>Clinical Teaching Conferences</p>	<p>ABIM Global Assessment Form Written Exam Procedure Log</p>	
	Internal medicine residents on neurology at the end of the month are expected to help update the ward and ambulatory syllabi sections on neurology for the benefit of all housestaff.	<p>Clinical Teaching Conferences</p>	<p>ABIM Global Assessment Form Written Exam</p>	

			Procedure Log	
Interpersonal and Communication Skills	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Write a legible history and physical examination and provide concise, but substantive daily progress notes using the SOAP format.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Write prescriptions that are legible and timely.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Dictate substantive discharge summaries in a timely fashion.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Communicate effectively with patients and families, consultants, and other health care professionals. This includes concise oral presentations on rounds.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Teach medical students effectively by establishing a positive mentoring relationship with appropriate feedback	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
	Provide effective and professional consultation to other physicians and health care professionals. Consults should be done promptly, enthusiastically, and educationally.	Clinical Teaching Conferences	ABIM Global Assessment Form  Written Exam  Procedure Log	
Professionalism	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Demonstrate respect, compassion, integrity, altruism, and	Clinical Teaching	ABIM Global Assessment	

	enthusiasm in relationships with patient, families, and colleagues.	Conferences	Form Written Exam Procedure Log	
	Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disabilities of patients and professional colleagues	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Demonstrate adherence to the principles of confidentiality, scientific/academic integrity, and informed consent	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Recognize and identify deficiencies in peer performance.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
Systems-Based Practice	<b>SPECIALTY SPECIFIC OBJECTIVES</b>			
	See General Internal Medicine Objectives for a comprehensive list.			
	Access and utilize the resources, providers, and systems necessary to provide optimal care including case management, physicians' action line, and various laboratories.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	
	Develop strategies to optimize care for the individual patient given the limitations of insurance coverage and hospital and clinic resources.	Clinical Teaching Conferences	ABIM Global Assessment Form Written Exam Procedure Log	

**Learning Venues:**

The key clinical venues for the rotation are the neurology inpatient services at the Regional Medical Center, VA Hospital and Methodist University Hospital. The Regional Medicine Center is the usual teaching site. These services have a wide range of neurological problems both primary inpatient and consultative. In addition there are neurology clinics at both the VA (Tuesday and Thursday afternoon) and the Med (Wednesday morning). Each internal medicine resident is expected to attend at least two half day neurology

clinics each week selecting two that do not interfere with his continuity medicine clinic. The resident should work up six to eight new patients weekly (inpatient and outpatient). There is general supervision by faculty of all inpatients and direct supervision of outpatients.

A packet of materials should be picked up by the resident at the start of the rotation from Mrs. Carol Blackman detailing how to perform a neurological history and physical examination, the conference schedule, and the night call schedule. Each resident should purchase a copy of Martin Samuels' Manual of Neurologic Therapeutics. Internal medicine residents are expected to maintain their own night call duties on the medicine service and to attend the medicine core conference series. However, neurology conferences are often conducted at a different time, and medicine residents are expected to attend these when there is no conflict. Specifically the resident should attend conferences designed for the medical students. The ward and ambulatory syllabi each have neurology sections, and the resident is referred to these and also to Uptodate for current literature references. He is expected to perform literature searches as needed in his patient care activities.

**Competency Evaluation:**

At the end of the rotation, the ABIM Global Assessment Form will be completed and reviewed with the resident by the attending. All six competencies and the chart audit must be rated as satisfactory or superior. Each resident will also be given an end-of-rotation examination. A procedure log must be maintained by the resident for recording lumbar punctures and other neurological procedures.

**Outcomes Assessment:**

The in-service examination contains a separate section on neurology. It is expected that all residents taking the neurology selective will score at 50 percentile or higher on this examination. The end-of-year resident evaluation of the training experience and the postgraduate surveys will also ask for feedback on the adequacy of neurology training.