

UAMS / CAVHS Adult Neurology Neuro-Ophthalmology Curriculum 6/13/08

Summary Description of Rotation

The adult neurology neuro-ophthalmology rotation is an extremely important rotation for 1 month during the adult neurology residency. A sound knowledge base in Neuro-Ophthalmology is **essential** for understanding Clinical Neurology. In general, it involves the PGY2-3 residents. The Attending Neuro-Ophthalmologists are:

Dr. Joseph Chacko: 688-9619(pager)

Dr. Sarkis Nazarian: 688-6553(pager)

Dr. Paul Phillips: 395-9173(pager).

The goal of the one month Neuro-Ophthalmology rotation is to expose the Neurology resident to a broad range of neuro-ophthalmic disorders. Many neurologic diseases (multiple sclerosis, myasthenia gravis, brain tumors, etc) present with ocular findings. In fact, six of the twelve cranial nerves deal with the eyes. The resident will be educated through individual study, attendance at weekly Ophthalmology Grand Rounds and monthly Journal Club, and largely through seeing patients with faculty mentors.

Educational Goals Summary

1. To provide an experience that will allow the resident to achieve basic competencies in the evaluation and treatment of patients with neuro-ophthalmic disorders.
2. To provide an experience that will allow the resident to achieve basic competencies in direct ophthalmoscopy, as well as testing visual acuity, visual field, pupils, and ocular motility.
3. To provide training and supervision that allows development of professionalism necessary to become an effective physician, including honesty, communication, proper interaction with patient, peers and ancillary staff, and proper referral of patients to provide appropriate provisions of care and education.

Assessment Summary

Resident performance will be assessed in the six core competencies:

1. Patient Care (PC)
2. Medical Knowledge (MK)
3. Interpersonal and Communication Skills (ICS)

4. Practice Based Learning and Improvement (PBLI)
5. Professionalism (P)
6. Systems Based Practice (SBP)

At the end of the rotation, the resident should receive and/or complete the following assessments:

1. Verbal feedback from Attending Physician;
2. Written assessment of performance in the six core competencies;
3. Resident assessment of Attending Physician.

Summary of Expectations & Goals, and Procedural Skill Acquisition

Evaluate and treat neuro-ophthalmic disorders in patients, with faculty supervision. Participate in performing histories and examinations of patients. Learn proper techniques of visual acuity, visual field, pupil, and motility exams. Master direct ophthalmoscopy, initially through dilated pupils.

Be able to distinguish and describe the appearances of:

- 1) Disc edema/papilledema
- 2) Optic atrophy
- 3) Optic Neuritis (retrobulbar)
- 4) Relative afferent pupillary defects (RAPD)
- 5) Anisocoria
- 6) Cranial nerve palsies (III, IV, V, VI, VII)
- 7) Internuclear Ophthalmoplegia (INO)

Be able to distinguish and describe various visual field defects:

- 1) Bitemporal hemianopia
- 2) Homonymous hemianopia
- 3) Altitudinal defect

Conferences: During the month, the resident will:

- 1) prepare and present a clinical case for the Thursday Ophthalmology Grand Rounds
- 2) observe presentations at the Thursday Ophthalmology Grand Rounds

- 3) observe presentations at the monthly Ophthalmology Journal Club
- 4) attend Mon-Wed-Fri Morning Conferences with the Ophthalmology residents

OTHER RESPONSIBILITIES

- Attend all neurology conferences
- Attend your resident continuity clinic

DAILY SCHEDULE

1. Check with UAMS ophthalmology department secretary, Karen Call (686-5150, ext 1225), for any schedule changes.
2. Attend Ophth Morning Conference Mon-Wed-Fri 730-815 AM at Jones Eye Institute 2nd floor Auditorium/Conf. Rm.

WEEKLY SCHEDULE

- Mondays:** 9:00-12:00 Neuro-Ophth Clinic at Jones Eye Institute (7th floor)
PM: Prepare clinical case for Grand Rounds
- Tuesdays:** 9:00-5:00 Neuro-Ophth Clinic at Jones Eye Institute (7th floor)
3rd Tues of month: 5 pm Journal Club - Jones Eye Institute 2nd floor Conference Rm.
- Wednesdays:** 9:00-1:00 Neuro-Ophth Clinic at VA (1st floor Eye Clinic)
4:00 Neurology-neuropathology conference, Dennis Lucy Library, 8th floor, Stephens Bldg.
- Thursdays:** 9:00-12:00 Neuro-Ophth Clinic at Jones Eye Institute (7th floor) or Resident Continuity Clinic
1:00-4:00 Resident Neuro-Ophth Clinic at Jones Eye Institute (**1st floor**)
4:00 Neurosurgery-neuropath conference, Neurosurgery Library, 10th floor, Stephens Bldg.
5:00 Ophth Grand Rounds - Jones Eye Institute 2nd floor Auditorium
- Fridays:** 9:00-12:00 Neuro-Ophth Clinic at Jones Eye Institute (**1st floor**)
PM: Review selected teaching materials/self-study.

Reading material - See Reading List Distributed Separately.

Rotation Orientation

The orientation occurs on Day 1 of the rotation by the Attending Physician. This written handout is provided then.

Supervision

Primary supervision for the rotation will be by the Attending Neuro-Ophthalmologists, Drs. Chacko, Nazarian, and Phillips

Mix of Diseases

Residents will meet the goals and objectives of the rotation through the study of the neuro-ophthalmology of the following broad categories of neurological diseases:

- A. Cerebrovascular disease
- B. Demyelinative disease
- C. Disorders of higher cognitive function (the dementias)
- D. Eye Movement disorders
- E. Neoplasms of the central nervous system
- F. Disorders of muscle and the neuromuscular junction
- G. Disorders of peripheral nerve
- H. Central nervous system/Orbital/Ocular infections
- I. Nutritional optic neuropathy
- J. Hereditary optic neuropathy

Conferences:

The neuro-ophthalmology rotation is associated with numerous clinical conferences directed at patient management, the treatment of neuro-ophthalmic emergencies, and general didactic reviews. Attendance is required. These conferences include:

1. Basic Neuroscience Conference (Monday 12:00-1:00 pm - JWS Bldg., 8th floor – Lucy Library)
2. Program Director's Core Competency and Ethics Conference, 1 Monday per month, 11:00 AM - JWS Bldg., 8th floor – Lucy Library)
3. Neuropathology Conference (Wednesdays 4 pm - JWS Bldg., 8th floor – Lucy Library)
4. Neuroradiology Conference (Wednesdays 5 pm - JWS Bldg., 8th floor – Lucy Library)
5. Neurology Grand Rounds (Fridays 8:15-9:30 am - JWS Bldg., 12th floor)
6. Ophth Journal Club, 1 Tuesday per month as scheduled, 5:00 PM – JEI 2nd floor Conf. Rm.
7. Ophth Grand Rounds, Thursdays 5 pm – JEI 2nd floor Auditorium
8. Ophth Resident Morning Conference, M-W-F 730-815 am - JEI 2nd floor Conf. Rm.

PATIENT CARE

Neuro-ophth Rotation (PGY2-3) Patient Care		
Objectives	Teaching Methods	Assessment Strategy
Gather essential and accurate clinical information about patients	Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review
Demonstrate technical skills in examining patients	Direct supervision by faculty Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review
Demonstrate proficiency in the interpretation of visual fields in patients with a broad spectrum of neuro-ophthalmic disease	Direct supervision by faculty Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review

MEDICAL KNOWLEDGE

Neuro-ophth Rotation (PGY 2-3) Medical Knowledge		
Objectives	Teaching Methods	Assessment Strategy
Demonstrate knowledge of relevant ocular, orbital, and neuroanatomy and the pathophysiology of CNS disorders, including neoplasms, cerebrovascular disease, degenerative disorders, demyelinative disorders, infectious diseases, and developmental disorders.	Direct supervision by faculty Independent study Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review
Demonstrate knowledge of the evaluation and treatment of various neuro-ophthalmic diseases including myasthenia gravis, optic neuritis, cranial nerve palsies, brain tumors, strokes, pseudotumor cerebri, etc.	Direct supervision by faculty Independent study Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review
Demonstrate an understanding of the essential and fundamental relationship between neurology and ophthalmology.	Direct supervision by faculty Independent study Performance feedback Conferences	Faculty rotation rating & evaluation RITE Program Director semi-yearly review

INTERPERSONAL AND COMMUNICATION

Neuro-ophth Rotation (PGY 2-3) Interpersonal and Communication		
Objectives	Teaching Methods	Assessment Strategy
Describe neuro-ophthalmic disorders in a logical, descriptive and coherent manner.	Direct supervision by faculty Independent study Performance feedback Conferences	Feedback at conferences Faculty rotation rating & evaluation Program Director semi-yearly review
Demonstrate the ability to prepare and present comprehensive and scientifically-based clinical case studies on a variety of neuro-ophthalmic entities at conferences.	Direct supervision by faculty Independent study Performance feedback Conferences	Feedback at conferences Faculty rotation rating & evaluation Program Director semi-yearly review
Interact in a mature and responsible manner with colleagues and faculty.	Direct supervision by faculty Performance feedback Conferences	Feedback at conferences Faculty rotation rating & evaluation Program Director semi-yearly review

PRACTICE BASED LEARNING AND IMPROVEMENT

Neuro-ophth Rotation (PGY2-3) Practice Based Learning and Improvement		
Objectives	Teaching Methods	Assessment Strategy
Critical review and personal record of difficult and interesting cases, and develop a life-long practice of applying knowledge from cases encountered.	Direct supervision by faculty Independent study Performance feedback Conferences	Self assessment Faculty rotation rating & evaluation Case log (encouraged) Program Director semi-yearly review
Research clinical neuro-ophth questions using information technology to access on-line medical information to support their own education and to improve patient care and education.	Medline/OVID searches-patient centered Conference presentations	Self assessment Faculty rotation rating & evaluation Program Director semi-yearly review
Evaluate the clinical literature applying knowledge of epidemiology, biostatistics, and research study design.	Direct supervision by faculty Independent study Medline/OVID searches-patient centered	Self assessment Faculty rotation rating & evaluation Program Director semi-yearly review
Facilitate the learning of medical students and fellow residents.	Role Modeling Oral presentations	Self assessment Faculty rotation rating & evaluation

PROFESSIONALISM

Neuro-ophth Rotation (PGY 2-3) Professionalism		
Objectives	Teaching Methods	Assessment Strategy
Interact responsibly with colleagues, co-workers, and faculty, taking into consideration culture and gender issues.	Role Modeling Oral presentations	Self assessment Faculty rotation rating & evaluation
Demonstrate appropriate use of the EMR in regards to patient respect and confidentiality.	EMR training Online HIPAA training	Self assessment Faculty rotation rating & evaluation
Demonstrate responsibility in conducting Ophthalmology Grand Rounds	Direct supervision by faculty Independent study Performance feedback	Faculty rotation rating & evaluation

SYSTEM BASED PRACTICE

Neuro-ophth Rotation (PGY2-3) System Based Practice		
Objectives	Teaching Methods	Assessment Strategy
Develop an understanding of the logistics involved in scheduling and interpreting visual fields and MRI scans	Direct supervision by faculty Independent study Performance feedback	Self assessment Faculty rotation rating & evaluation
Develop expertise in consulting Neuro-Radiology colleagues for help with challenging cases	Direct supervision by faculty Interaction with Neuro-Radiology faculty Performance feedback	Self assessment Faculty rotation rating & evaluation
Develop expertise in conference scheduling and coordination in healthcare systems.	Direct supervision by faculty Independent study Performance feedback	Self assessment Faculty rotation rating & evaluation