

University of Kentucky Department of Neurology

Advanced Stroke Elective

Introduction

This elective will provide Neurology residents exposure to advanced diagnostic and therapeutic aspects of stroke care. This rotation is open to PGY-3 or PGY-4 residents who have completed at least one month of training on the inpatient stroke service. The resident will focus on cerebral angiography (diagnostic and therapeutic) primarily for ischemic stroke patients and also for hemorrhagic stroke patients. The resident will spend time learning how to perform and interpret cerebrovascular ultrasound tests including carotid and transcranial Doppler studies.

PRINCIPLE EDUCATIONAL GOALS GROUPED BY COMPETENCY:

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I. PATIENT CARE

1. Interview patients more skillfully.
2. Examine patients more skillfully.
3. Achieve expertise in performing the NIH Stroke Scale.
4. Improve neurological localization skills.
5. Accurately diagnose clinical stroke syndromes and stroke mimics.
6. Appropriately select patients for cerebral angiographic diagnostic and interventional procedures.
7. Effectively implement pre-op and post-op care of the interventional stroke patient
8. Appropriately select patients for cerebrovascular Doppler testing.
9. Improve understanding of ethical issues regarding end of life care and palliative care issues pertinent to stroke care.

II. MEDICAL KNOWLEDGE

1. Expand clinical knowledge base regarding the advanced pathophysiology of ischemic stroke and the relevant basic science concepts of vascular anatomy, thrombosis, thromboembolism and atherosclerosis.
2. Know indications, risks, and limitations for cerebral angiography and neuro-ultrasound studies.
3. Learn principles of Doppler ultrasonography pertaining to the cerebrovasculature.
4. Expand knowledge of cerebrovascular anatomy through cerebral angiography interpretation.
5. Expand knowledge of acute stroke treatment strategies.
6. 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 stroke patients.
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. Communicate effectively with physician colleagues at all levels.
3. Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.
4. Present patient information concisely and clearly, verbally and in writing.
5. 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 hospitalized stroke patients.
2. Collaborate with other members of the health care team to assure comprehensive patient care.
3. Use evidence-based, cost-conscious strategies in the care of hospitalized patients.
4. Understand the long-term consequences of patient care in relation to the individual's socioeconomic status.

Duties

1. The resident is involved in the diagnostic management of all patients on the stroke service needing cerebral angiography or Doppler studies. This includes:
 - a. Obtaining consent for angiography studies in which the resident will participate.
 - b. Reviewing Doppler studies on every stroke patient with the neuro-ultrasound attending.
 - c. Participating in the interpretation of cerebral angiograms.
 - d. Scrubbing in and assisting on cerebral angiograms.

2. The resident may see emergency stroke consults in the ED during daytime work hours at the direction of the attending on cerebrovascular intervention.
3. The evaluation of an acute stroke patient for interventional therapy takes precedence over *ALL OTHER* elective duties. The stroke neurology resident is expected to attend and participate in the evaluation of all patients who are being considered for acute stroke interventional therapy. A patient who has received thrombolytic therapy at another institution and transferred to UKMC should be evaluated immediately upon arrival by the stroke neurology resident.
4. The resident should personally review all CT and MRI scans of patients scheduled for cerebral angiography.
5. Additionally, the resident is expected to learn the basics of neuro-ultrasound reading and interpretation and should attempt to review ultrasound cases of all cerebrovascular patients.
6. The resident is expected to follow, in-house, and assist in management of patients who undergo interventional stroke procedures.
7. The resident will be expected to spend time reading (at least one half day per week) and may be expected to work on scholarly projects related to cerebrovascular disease, depending on individual interests.