Introduction

The neurology resident in this position is the primary manager of patient care leading the service intern and students in this effort. In instances when there is both an adult neurology resident and a pediatric neurology resident on the general neurology service, the two neurology residents should consider themselves to be co-leaders of the team, and should divide the responsibilities of the team. The exception would be in regards to general medical care of adult patients in which the adult neurology resident should take the lead. Though beginning the year as a neurological novice, the HO will dramatically expand his neurological base of knowledge on these services.

This rotation is mostly assigned to PG2 and PG3 residents. For senior (PG4) residents, in addition to the objectives listed below, the resident should demonstrate advanced leadership skills in conducting rounds, managing patients and teaching junior residents and medical students.

PRINCIPLE EDUCATIONAL GOALS GROUPED BY COMPETENCY

I. PATIENT CARE

1. Interview patients more skillfully.
2. Examine patients more skillfully.
3. Improve neurological localization skills.
4. Accurately diagnose neurological disorders requiring inpatient admission.
5. Effectively manage the patient with acute neurological illness including appropriate drug therapy and non-pharmacological treatments and therapies.
6. Define and prioritize patients' neurological and medical problems.
7. Appropriately select and interpret pertinent laboratory and imaging studies.
8. Improve lumbar puncture skills.
10. Improve clinical ability to anticipate, prevent and treat both medical and neurological complications
11. Improve efficiency of care in the hospital setting.

II. MEDICAL KNOWLEDGE

1. Improve basic neurological knowledge base.
2. Expand clinical knowledge base regarding common neurological problems requiring inpatient admission. This includes but is not limited to AIDP, myasthenic crisis, multiple
sclerosis exacerbation, acute seizures and status epilepticus, status migrainosus, meningitis/encephalitis.

3. Improve understanding of evaluation and diagnostic testing for common neurological illnesses.
4. Expand knowledge of potential interventions to anticipate and prevent future complications relative to the patient's illness.
5. 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 hospitalized patients with neurological illness.
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 patients with neurological illness.
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 HO is directly involved in the management of all patients on the inpatient service. This includes
   a. interviewing and examining every new admission.
   b. composing an abbreviated admission note on every patient.
   c. reviewing, guiding and teaching the interns in their performance of a complete and accurate admission history and physical on every patient.
   d. leading work rounds with the intern and students.
   e. assuring that the team is prepared for rounds with the attending daily.

2. The HO must write a progress note on any patient for whom the intern does not write a note. Notes must be in "SOAP"-note format and must be written in addition to a medical student note.

3. The HO must review all student and intern notes for accuracy and correct/amend them if necessary.

4. The HO is the primary teacher for the intern and students.

5. When the stroke neurology ward resident leaves the hospital early post-call as per the duty hours rules, then the general ward resident becomes responsible for helping the intern on the general neurology service if needed and is also responsible for seeing direct admissions to the general neurology team in addition to his own team.

6. The general neurology resident may be called to see a patient in the ED by the senior resident on the consult team according to circumstances and relative work loads.

Breakdown of Educational Levels:
A significant portion of your time during residency training will be spent managing the care of neurologically ill patients on the in-patient ward service (including patients in the Intensive Care Unit) either at the University of Kentucky Medical Center or the Lexington VA. This is a busy, yet exciting time in your training, as you will be exposed
to a broad spectrum of disease processes as well as the occasional facinoma. Like the study of any medical discipline, you will see more of some diseases than others (common things being common). While this has the distinct advantage of allowing you to become proficient in the care of patients with these disorders, one runs the risk of breezing over important information and missing details that could ultimately prove critical to patient diagnosis and care. It is thus our expectation that each and every one of you take an extensive, detailed history and perform a thorough, directed examination for every patient you see, even if it is just another stroke. Particular importance should also be paid to information that can be found in the hospital chart or outside records. Pertinent information from these sources should be included in the history as deemed appropriate. This may take a bit more time, but it is essential if we, as a team, are to provide the best patient care possible.

Although every hospital/department may have its nuances with regard to the individual roles of the ward team, the basic structure tends to be the same. Below is a description of the ward team members:

1. **Attending** - Ideally, in an academic environment, the role of the attending is that of facilitator. On the wards (as well as on consults and in the clinic) the attending will listen to the resident present a case, allow him/her to formulate a diagnosis and management plan, and then discuss the case and make recommendations as he/she sees fit.

   If, as the resident, you disagree with the attending regarding the diagnosis or management of a patient, you should discuss your concerns with the attending in an appropriate manner and define an appropriate and mutually agreeable care plan. However, regardless of the outcome of such a discussion, the attending is ultimately responsible for the care of the patient and his/her decision is what should be followed.

   In addition to staffing cases, the attending will be involved in teaching the various members of the team. Methods employed by the attending may vary and include emphasizing physical findings at the bedside, Socratic and informal lectures, vignettes, etc. The attending may also require additional readings, presentations, or reports on various problems encountered during the month.

2. **Senior Neurology Ward Resident** - In some instances, there will be a senior neurology resident and one or more junior residents. The ward senior resident essentially runs the show and should consider each patient his/her own. The ward senior is typically the first neurologist to evaluate the patient and make any necessary medical decisions. The ward senior also organizes the ward team and assigns responsibilities, supervises the other team members in their evaluations, assessments, and presentations, and helps teach the fundamentals of neurology.

   It is expected that, under most situations, the ward senior will be able to differentiate, based on history and physical, most common neurologic problems, and initiate
appropriate diagnostic tests and medical management. **In case of doubt, CALL THE ATTENDING. BETTER TO BE SAFE THAN SORRY.**

The ward senior resident should take primary responsibility for ICU patients although, in some cases, this may be delegated to a Junior Neurology Resident. The ward senior resident should be available to the other team members, answer their questions, and assist (if not lead the team) in the event that a patient crumps. It is therefore incumbent on the ward senior that he/she be at the University (hospital, clinic, VA) during the working day and be able to respond quickly when the need arises. If the ward resident must leave the University grounds for any reason, it is expected that he/she establish coverage with another senior resident. After hours, the ward senior should keep his/her pager on in the event that trouble arises and the junior resident needs assistance. Remember, these are your patients.

The ward senior resident should take time to observe and instruct both the junior residents, the interns, and the medical students on proper technique and interpretation of the neurologic examination and various procedures, including lumbar puncture.

In addition to these responsibilities, it is hoped that the ward senior will take time to listen to students present their cases some time prior to attending rounds (remember how awful it could be presenting a case cold to the attending?) and assist them in developing their skills in managing neurologically ill patients. The ward senior will also review medical student progress notes (indicated by his/her initials) and critique student H&Ps. All students have a neurological exam check-off sheet to be done with an attending or resident. It is the responsibility of either the senior or junior ward resident to help students become proficient in the neurological exam.

3. **Junior Neurology Resident** - While the ward senior is, under the best circumstances, directing the team, the junior resident is that individual who, along with the intern and medical students, gets the work done. Although the amount of work may, at times, seem laborious and reminiscent of your internship; this is truly a period where you will learn an immense amount of neurology. You will become facile performing lumbar punctures, managing status epilepticus, and treating acute strokes and hemorrhages. By your second and third years, when you are ward senior, you will simply marvel at all you have learned during your first year on the wards. Since different ward seniors may have a slightly different approach to the ward, make sure to establish the ground rules early in the month.

All patients are required to have a resident (junior or senior) H&P in the chart.

4. **Intern** - The intern is an important player on the team who should be treated with respect and not simply be considered a scut puppy. The intern should not only assist the neurology residents, but also be responsible for his/her own patients. The intern will discuss all of his/her patients with the ward senior and be responsible for all procedures and acquisition of data. The intern will also work with the junior neurology resident and
help track down labs and studies, perform procedures, and write daily notes. It is best if the junior resident and intern split the work.

If an intern is responsible for writing notes on a group of patients, it is expected that either the junior or senior neurology resident will read them, addend them if necessary and co-sign them. This serves to make sure the note is accurate and provides feedback to the intern who deserves to come away from this rotation a better neurologist. The same holds true for medical student notes.

It is important that interns be observed and instructed in the proper performance of a neurologic examination. This will often be done with the participation of the attending.

5. **Medical Students** - Like the intern, the medical student should be treated as a valuable member of the team. Medical students can be very helpful on the wards and should be given the opportunity to perform blood-draws and (under close supervision) lumbar punctures. If there are a given number of procedures to perform, divide them equitably, and do not dump your work on the medical students.

The medical students should pre-round in accordance with team policy and be responsible for knowing their patients medications, vitals, labs, test results, and any clinical changes in the past twenty-four hours. **DO NOT RELY SOLELY ON THE MEDICAL STUDENT FOR THIS INFORMATION. HAVING THE CORRECT INFORMATION IS YOUR RESPONSIBILITY.** Important information can be gathered with the medical students. Remember, checks and balances prevent information from slipping through the cracks.

Medical students will pick-up patients as they are admitted. This can be done on a rotating basis, or the senior resident can assign patients. Generally, medical students should not pick up more than two new patients in a single workday, unless they are on call, in which case they may pick up three. During attending rounds, students have priority over presenting new patients. If no student has picked up the patient, then the intern will present.