Neurology Residency Program Policy Manual

2016-2017

Revised June 10, 2016

http://neurology.med.uky.edu/neurology-adult-residency
## Contents

Mission Statement.................................................................................................................. Page 3

ACGME Neurology Milestone Competencies........................................................................ Page 4

Program Goals and Objectives............................................................................................... Page 12

UK Neurology Residency Curriculum...................................................................................... Page 13

Administrative Structure......................................................................................................... Page 14

CLER Policies (including duty hours)

- Policy on learning and working environment.................................................................. Page 19
- Policy on transitions of care............................................................................................. Page 21
- Policy on alertness and fatigue management.................................................................... Page 23
- Policy on house-staff supervision..................................................................................... Page 25
- Policy on resident communication with faculty............................................................... Page 28
- Policy on resident duty hours......................................................................................... Page 29
- Policy on resident prolonged duty period........................................................................ Page 33
- Policy on resident moonlighting...................................................................................... Page 33

Resident Recruitment Policy................................................................................................. Page 35

House-staff Goals and Objectives by Level of Training.......................................................... Page 37

House-Staff Assessment......................................................................................................... Page 47

House-Staff Call Guidelines.................................................................................................. Page 49

Leave Policy, including Travel Policy.................................................................................... Page 52

Neurology Inpatient Services................................................................................................. Page 55

Neurology Outpatient Services.............................................................................................. Page 59

Academic Guidelines............................................................................................................ Page 61

Mentorship Program............................................................................................................... Page 63

Procedures for Grievances and Impaired Physician............................................................... Page 65

Useful Links............................................................................................................................ Page 67

Attachments
Welcome

Welcome to the neurology residency program at the University Of Kentucky College Of Medicine. We are delighted that you have chosen to train with us. We promise to provide you rigorous and comprehensive training that will enable you to achieve your future career goals- be it in an academic or private practice setting. We hope you have a fruitful and enjoyable time training with us and make the best use of the resources available.

Mission Statement

- **Educational mission:**
  Provide rigorous clinical training for residents to achieve competency to practice neurology independently.

- **Service mission:**
  Provide high quality neurologic care to citizens of the Commonwealth of Kentucky. This is achieved by providing a safe and supervised clinical training environment at University, Veteran’s Affairs, Community, and Outreach practice settings.

- **Scholarly mission:**
  Encourage and facilitate participation in scholarly activities in areas of clinical and basic research, patient care quality improvement, and medical education.
ACGME Neurology Milestone Competencies

Residents will receive milestone-based assessments by supervising faculty at the end of each rotation. These will be cumulatively reviewed by the Clinical Competency Committee on a semi-annual basis, the recommendation of which will be utilized by the Program Director in making decisions regarding academic standing and progression in training. In general, residents should aim to achieve at least the equivalent milestone level of their respective post-graduate year in training (e.g. by the end of PGY-2 residents should have achieved at least a milestone level 2 in all categories). A level 5 milestone is interpreted to represent an advanced skill one might achieve only in a learner’s given area of subspecialty interest. Residents are expected to achieve a level 5 milestone in at least 1 domain by the time of graduation, typically reflecting an academic accomplishment.

**Patient Care (PC):** Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Residents are expected to achieve competency in the following domains:

- **History**
  - Obtains a neurologic history (PC – H – 1)
  - Obtains a complete and relevant neurologic history (PC – H – 2)
  - Obtains a complete, relevant, and organized neurologic history (PC – H – 3)
  - Efficiently obtains a complete, relevant, and organized neurologic history (PC – H – 4)
  - Efficiently obtains a complete, relevant, and organized neurologic history incorporating subtle verbal and non-verbal cues (PC – H – 5)

- **Neurological Exam**
  - Performs complete neurological exam (PC – EX – 1)
  - Performs complete neurological exam accurately (PC – EX – 2)
  - Performs a relevant neurological exam incorporating some additional appropriate maneuvers (PC – EX – 3)
  - Visualizes papilledema (PC – EX – 3)
  - Accurately performs a neurological exam on a comatose patient (PC – EX – 3)
  - Efficiently performs a relevant neurological exam accurately incorporating all additional appropriate maneuvers (PC – EX – 4)
  - Accurately performs a brain death examination (PC – EX – 4)
  - Consistently demonstrates mastery in performing a complete, relevant, and organized neurological exam (PC – EX – 5)

- **Management/Treatment**
  - Demonstrates basic knowledge of management of patients with neurologic disease (PC-M/T – 1)
  - Discusses general approach to initial treatment of common neurologic disorders, including risks and benefits of treatment (PC – M/T – 2)
  - Identifies neurologic emergencies (PC – M/T – 2)
  - Individualizes treatment for specific patients (PC – M/T – 3)
  - Initiates management for neurologic emergencies and triages patient to appropriate level of care (PC – M/T – 3)
  - Appropriately requests consultations from non-neurologic care providers for additional evaluation and management (PC – M/T – 3)
- Adapts treatment based on patient response (PC – M/T – 4)
- Identifies and manages complications of therapy (PC – M/T – 4)
- Independently directs management of patients with neurologic emergencies (PC – M/T – 4)
- Appropriately requests consultations from a neurologic subspecialist for additional evaluation or management (PC – M/T – 4)
- Demonstrates sophisticated knowledge of treatment subtleties and controversies (PC_ M/T – 5)

- Movement disorder
  - Recognizes when a patient may have a movement disorder (PC – MD – 1)
  - Identifies movement disorder phenomenology and categories (PC – MD – 2)
  - Identifies movement disorder emergencies (PC – MD – 3)
  - Diagnoses and manages common movement disorders (PC – MD -3)
  - Diagnoses uncommon movement disorders (PC – MD – 4)
  - Appropriately refers a movement disorder patient for a surgical evaluation or other interventional therapies (PC – MD – 4)
  - Manages movement disorders emergencies (PC – MD – 4)

- Neuromuscular disorder
  - Recognizes when a patient may have a neuromuscular disorder (PC – NM – 1)
  - Identifies patterns of neuromuscular disease (PC – NM – 2)
  - Identifies neuromuscular disorder emergencies (PC – NM – 2)
  - Orders NCS/EMG testing appropriately (PC – NM – 2)
  - Interprets results of NCS/EMG testing in context of clinical presentation (PC- NM – 3)
  - Diagnoses and manages common neuromuscular disorders (PC – NM – 3)
  - Manages neuromuscular disorder emergencies (PC – NM – 3)
  - Diagnoses uncommon neuromuscular disorders (PC – NM – 4)
  - Recognizes when tissue biopsy is warranted (PC – NM – 4)

- Cerebrovascular Disorders
  - Recognizes when a patient may have a cerebrovascular disorder (PC – CVD – 1)
  - Describes stroke syndromes and etiologic subtypes (PC – CVD – 2)
  - Identifies cerebrovascular emergencies (PC - CVD – 2)
  - Lists indications and contraindications for intravenous thrombolytic therapy (PC – CVD – 2)
  - Identifies specific mechanism of patient’s cerebrovascular disorder (PC – CVD – 3)
  - Appropriately refers for interventional or surgical evaluation (PC –CVD – 3)
  - Manages common cerebrovascular disorders including appropriate use of thrombolytics (PC – CVD – 3)
  - Diagnoses uncommon cerebrovascular disorders (PC – CVD – 4)
  - Manages uncommon cerebrovascular disorders (PC – CVD – 5)

- Cognitive/Behavioral Disorders
  - Recognizes when a patient may have a cognitive/behavioral disorder (PC – CBD – 1)
  - Identifies common cognitive/behavioral disorders (PC – CBD – 2)
  - Diagnoses and manages common cognitive/behavioral disorders, including cognitive effects of traumatic brain injury (PC – CBD – 3)
  - Manages behavioral complications of cognitive/behavioral disorders (PC – CBD – 3)
  - Appropriately refers for neuropsychological testing in evaluating patients with cognitive/behavioral disorders (PC – CBD – 3)
  - Diagnoses and manages uncommon cognitive/behavioral disorders (PC – CBD – 4)
  - Engages in scholarly activity in cognitive/behavioral disorders (PC – CBD – 5)
- Demonstrates sophisticated knowledge of advanced diagnostic testing and controversies (PC – CBD – 5)

- Demyelinating Disorders
  - Recognizes when a patient may have a demyelinating disorder (PC – DEM – 1)
  - Diagnoses and manages common demyelinating disorders (PC – DEM – 2)
  - Manages acute presentations of demyelinating disorders (PC – DEM – 3)
  - Recognizes uncommon demyelinating disorders (PC – DEM – 3)
  - Diagnoses uncommon demyelinating disorders (PC – DEM – 4)

- Epilepsy
  - Recognizes when a patient may have had a seizure (PC – EPI – 1)
  - Identifies epilepsy phenomenology, and classification of seizures and epilepsies (PC – EPI – 2)
  - Diagnoses convulsive status epilepticus (PC – EPI – 2)
  - Diagnoses and manages common seizure disorders and provides antiepileptic drug treatment (PC – EPI – 3)
  - Diagnoses non-convulsive status epilepticus (PC – EPI – 3)
  - Manages convulsive and non-convulsive status epilepticus (PC – EPI – 3)
  - Diagnoses uncommon seizure disorders (PC – EPI – 4)
  - Appropriately refers an epilepsy patient for surgical evaluation or other interventional therapies (PC – EPI – 4)

- Headache Syndromes
  - Recognizes common headache syndromes (PC – HA – 1)
  - Identifies headache emergencies (PC – HA – 2)
  - Diagnoses and manages common headache syndromes (PC – HA -2)
  - Recognizes uncommon headache syndromes (PC – HA – 3)
  - Diagnoses and manages headache emergencies (PC – HA -3)
  - Diagnoses and manages uncommon headache syndromes (PC – HA -4)

- Neurologic Manifestations of Systemic Disease
  - Recognizes when a patient’s neurologic symptoms may be due to systemic illness (PC – MSD – 1)
  - Identifies neurologic emergencies due to systemic disease (PC – MSD – 1)
  - Diagnoses and manages common neurologic manifestations of systemic diseases (PC – MSD – 2)
  - Diagnoses and manages neurologic emergencies due to systemic disease (PC – MSD – 2)
  - Recognizes uncommon manifestations of systemic disease (PC – MSD – 3)
  - Diagnoses and manages uncommon neurologic manifestations of systemic disease (PC – MSD – 4)

- Child Neurology for the Adult Neurologist
  - Obtains basic neurologic history of infants and children (PC-CHILD-1)
  - Lists the elements of a neurological examination of infants and children (PC-CHILD – 2)
  - Recognizes broad patterns of neurologic disease in infants and children (PC – CHILD – 2)
  - Lists normal developmental milestones (PC – CHILD – 2)
  - Obtains a complete and age-appropriate neurologic history of infants and children (PC-CHILD-3)
  - Performs a complete and age-appropriate neurological examination of infants and children (PC-CHILD-3)
  - Diagnoses common child neurologic disorders (PC-CHILD-3)
  - Initiates management of common childhood neurologic disorders (PC-CHILD-4)
  - Initiates management of common neurologic emergencies in infants and children (PC-CHILD-4)
  - Diagnoses uncommon childhood neurologic disorders (PC-CHILD-5)
• Neuro-Oncology
  o Recognizes common clinical presentations of a brain or spine mass (PC – NO – 1)
  o Identifies neuro-oncological emergencies and initiates management (PC – NO – 2)
  o Provides differential diagnosis of brain or spine mass (NO – PC – 3)
  o Identifies neurological complications due to cancer or the treatment of cancer (PC – NO – 3)
  o Appropriately refers for advanced testing, including biopsy (PC-NO-4)
  o Manages neurologic complications due to cancer or the treatment of cancer (PC-NO-4)
  o Engages in scholarly activity in neuro-oncology (e.g., teaching, research) (PC-NO-5)

• Psychiatry for the Adult Neurologist
  o Recognizes when a patient may have a psychiatric disorder (PC – PSY – 1)
  o Identifies common psychiatric disorders (PC – PSY – 2)
  o Identifies psychiatric co-morbidity in patients with a neurologic disease (PC – PSY -2)
  o Recognizes when a patient’s neurological symptoms are of psychiatric origin (PC – PSY -3)
  o Identifies when a patient’s psychiatric symptoms are of neurologic origin (PC – PSY – 3)
  o Identifies major side effects of psychiatric medications (PC – PSY -3)
  o Engages in scholarly activity in psychiatric disorders (e.g., teaching, research)

• Neuroimaging
  o Identifies basic neuroanatomy on brain magnetic resonance (MR) and computerized tomography (CT) (PC – NI – 1)
  o Recognizes emergent imaging findings on brain MR and CT (PC – NI -2)
  o Identifies basic neuroanatomy on spine MR and CT (PC – NI -2)
  o Identifies major vascular anatomy on angiography (PC – NI – 2)
  o Describes abnormalities of the brain and spine on MR and CT (PC – NI – 3)
  o Identifies major abnormalities on angiography (PC – NI -3)
  o Interprets MR and CT neuroimaging of brain and spine (PC – NI -4)
  o Identifies subtle abnormalities on angiography (PC – NI – 5)
  o Interprets carotid and transcranial ultrasound (PC – NI – 5)

• Electroencephalogram
  o Explains an EEG procedure in non-technical terms (PC-EEG-1)
  o Uses appropriate terminology related to EEG (e.g., montage, amplitude, frequency) (PC – EEG – 2)
  o Describes normal EEG features of wake and sleep states (PC – EEG – 3)
  o Recognizes EEG patterns of status epilepticus (PC – EEG – 3)
  o Recognizes common EEG artifacts (PC – EEG – 3)
  o Interprets common EEG abnormalities and creates a report (PC – EEG – 4)
  o Recognizes normal EEG variants (PC – EEG – 4)
  o Interprets uncommon EEG abnormalities (PC – EEG – 5)
  o Describes normal and some abnormal EEG features of wake and sleep states in children (PC – EEG – 5)

• Nerve Conduction Studies (NCS) /Electromyography (EMG)
  o Explains an NCS/EMG procedure in nontechnical terms (PC-EMG-1)
  o Uses appropriate terminology related to NCS/EMG (PC – EMG – 2)
  o Describes NCS/EMG data (PC – EMG -3)
  o Lists NCS/EMG findings in common disorders (PC – EMG – 3)
  o Formulates basic NCS/EMG plan for specific, common clinical presentations (PC-EMG-4)
  o Interprets NCS/EMG data in common disorders (PC – EMG – 4)
Describes common pitfalls of NCS/EMG (PC – EMG – 4)
Performs, interprets and creates a report for NCS/EMG (PC-EMG-5)

- Lumbar Puncture
  - Lists the indications and contraindications for lumbar puncture (PC – LP – 1)
  - Lists the complications of lumbar puncture and their management (PC – LP -2)
  - Performs lumbar puncture under direct supervision (PC-LP-3)
  - Performs lumbar puncture without direct supervision (PC-LP-4)
  - Performs lumbar puncture on patients with challenging anatomy (PC-LP-5)

**Medical Knowledge (MK):** Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

Residents are expected to achieve competency in the following:

- Localization
  - Attempts to localize lesions within the nervous systems (MK – LOC – 1)
  - Describes basic neuroanatomy (MK – LOC - 1)
  - Localizes lesions to general regions of the nervous system (MK – LOC – 2)
  - Accurately localizes lesions to specific regions of the nervous systems (MK – LOC – 3)
  - Efficiently and accurately localizes lesions to specific regions of the nervous systems (MK – LOC – 4)
  - Describes advanced neuroanatomy (MK – LOC – 4)
  - Consistently demonstrates sophisticated and detailed knowledge of neuroanatomy in localizing lesions (MK – LOC - 5)

- Formulation
  - Summarize history and exam findings (MK-FORM-1)
  - Summarize key elements of history and exam findings (MK-FORM-2)
  - Identifies relevant pathophysiologic categories to generate a broad differential diagnosis (MK – FORM – 2)
  - Synthesizes information to focus and prioritize diagnostic possibilities (MK-FORM-3)
  - Correlates the clinical presentation with basic anatomy of the disorder (MK – FORM – 3)
  - Efficiently synthesizes information to focus and prioritize diagnostic possibilities (MK-FORM-4)
  - Continuously reconsiders diagnostic differential in response to changes in clinical circumstances (MK-FORM-4)
  - Diagnoses brain death (MK-FORM-4)
  - Accurately correlates the clinic presentation with detailed anatomy of the disorder (MK – FORM - 4)
  - Consistently demonstrates sophisticated and detailed knowledge of pathophysiology in diagnosis (MK –FORM – 5)
  - Effectively educates others about diagnostic reasoning (MK – FORM – 5)

- Diagnostic investigation
  - Demonstrates general knowledge of diagnostic tests in neurology (MK – DI – 1)
  - Discusses general diagnostic approach appropriate to clinical presentation (MK – DI – 2)
  - Lists risk and benefits of tests to patient (MK – DI -2)
  - Accurately interprets results of common diagnostic tests (MK – DI – 3)
  - Individualizes diagnostic approach to the specific patient (MK-DI-3)
o Explains diagnostic yield and cost-effectiveness of testing (MK – DI – 4)
o Accurately interprets results of less common diagnostic testing (MK – DI – 4)
o Recognizes indications and implications of genetic testing (MK – DI – 4)
o Recognizes indications of advanced imaging and other diagnostic studies (MK – DI – 4)
o Demonstrates sophisticated knowledge of diagnostic testing and controversies (MK – DI – 5)

**Practice-based Learning and Improvement (PBLI):** Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

Residents are expected to develop skills and habits to be able to meet the following goals:

- **Self-directed learning**
  - Acknowledges gaps in knowledge and expertise (PBLI – SELF – 1)
  - Incorporates feedback (PBLI – SELF -2)
  - Develops an appropriate learning plan based upon clinical experience (PBLI – SELF-3)
  - Completes an appropriate learning plan based upon clinical experience (PBLI – SELF-4)
  - Engages in scholarly activity regarding practice-based learning and improvement (PBLI – SELF- 5)

- **Locate, appraise, and assimilate evidence from scientific studies related to the patient’s health problems**
  - Uses information technology to search and access relevant medical information (PBLI – SCI – 1)
  - Uses scholarly articles and guidelines to answer patient care issues (PBLI – SCI – 2)
  - Critically evaluates scientific literature (PBLI – SCI – 3)
  - Incorporates appropriate evidence-based information into patient care (PBLI-SCI-4)
  - Understands the limits of evidence-based medicine in patient care (PBLI – SCI – 4)
  - Engages in scholarly activity regarding evidence –based medicine (PBLI – SCI -5)

**Interpersonal and Communication Skills (IPCS):** Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Residents are expected to achieve competency in the following:

- **Relationship development, teamwork, and managing conflict**
  - Develops a positive relationship with patients in uncomplicated situations (IPCS-TEAM-1)
  - Actively participates in team-based care (IPCS-TEAM-1)
  - Manages simple patient/family-related conflicts (IPCS-TEAM-2)
  - Engages patients in shared decision-making (IPCS-TEAM-2)
  - Manages conflict in complex situations (IPCS-TEAM – 3)
  - Uses easy-to-understand language in all phases of communication (IPCS – TEAM -3)
  - Manages conflict across specialties and systems of care (IPCS-TEAM-4)
  - Leads team-based patient care activities (IPCS-TEAM-4)
  - Engages in scholarly activity regarding teamwork and conflict management (IPCS – TEAM – 5)

- **Information sharing, gathering, and technology**
  - Effectively communicates during patient hand-overs using a structured communication tool (IPCS-INFO-1)
  - Completes documentation in a timely fashion (IPCS-INFO-1)
Accurately documents transitions of care (IPCS-INFO-1)
Effectively communicates during team meetings, discharge planning, and other transitions of care (IPCS-INFO-2)
Educates patients about their disease and management, including risks and benefits of treatment options (IPCS-INFO-2)
Completes all documentation accurately, including use of EHR to promote patient safety (IPCS-INFO-2)
Effectively communicates the results of a neurologic consultation in a timely manner (IPCS-INFO-3)
Effectively gathers information from collateral sources when necessary (IPCS-INFO-3)
Demonstrates synthesis, formulation, and thought process in documentation (IPCS-INFO-3)
Effectively leads family meetings (IPCS-INFO-4)
Effectively and ethically uses all forms of communication (IPCS-INFO-4)
Mentors colleagues in timely, accurate, and efficient documentation (IPCS – INFO – 4)
Develops patient education materials (IPCS – INFO -5)
Engages in scholarly activity regarding interpersonal communication (IPCS – INFO -5)

Professionalism (P): Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Residents are expected to demonstrate competency in the following:

- Compassion, integrity, accountability, and respect to self and others
  - Describes effects of sleep deprivation and substance abuse on performance (P – INT – 1)
  - Demonstrates compassion, sensitivity and responsiveness to patients and families (P-INT-1)
  - Demonstrates non-discriminatory behavior in all interactions, including diverse and vulnerable populations (P-INT-1)
  - Demonstrates appropriate steps to address impairment in self (P-INT-2)
  - Consistently demonstrates professional behavior, including dress and timeliness (P – INT -2)
  - Demonstrates compassionate practice of medicine, even in context of disagreement with patient beliefs (P-INT-3)
  - Incorporates patients’ socio-cultural needs and beliefs into patient care (P-INT-3)
  - Demonstrates appropriate steps to address impairment in colleagues (P-INT-3)
  - Mentors others in the compassionate practice of medicine, even in context of disagreement with patient beliefs (P-INT-4)
  - Mentors others in sensitivity and responsiveness to diverse and vulnerable populations (P-INT-4)
  - Advocates for quality patient care (P-INT-4)
  - Engages in scholarly activity regarding professionalism (P – INT – 5)

- Knowledge about, respect for, and adherence to the ethical principles relevant to the practice of medicine, remembering in particular that responsiveness to patients that supersedes self-interest is an essential aspect of medical practice
  - Describes basic ethical principles ( P – ETH – 1)
  - Determines presence of ethical issues in practice (P-ETH-2)
  - Analyzes and manages ethical issues in straightforward clinical situations (P-ETH-3)
  - Analyzes and manages ethical issues in complex clinical situations (P-ETH-4)
  - Demonstrates leadership and mentorship in applying ethical principles (P – ETH – 5)
**Systems-based Practice (SBP):** Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Residents are expected to achieve competency in the following:

- **Systems thinking, including cost and risk effective practice**
  - Describes basic cost and risk implications of care (SBP – COST – 1)
  - Describes cost and risk benefit ratios in patient care (SBP – COST – 2)
  - Makes clinical decisions that balance cost and risk benefit ratios (SBP – COST – 3)
  - Incorporates available quality measures in patient care (SBP-COST-4)
  - Engages in scholarly activity regarding cost- and risk-effective practice (SBP – COST -5)

- **Work in inter-professional teams to enhance patient safety**
  - Describes team members’ roles in maintaining patient safety (SBP – TEAM – 1)
  - Identifies and reports errors and near-misses (SBP-TEAM-2)
  - Describes potential sources of system failure in clinical care such as minor, major, and sentinel events (SBP – TEAM – 3)
  - Participates in a team-based approach to medical error analysis (SBP – TEAM – 4)
  - Engages in scholarly activity regarding error analysis and patient safety (SBP – TEAM – 5)

**Ref:**
1. ACGME- The Neurology Milestone Project
   [http://acgme.org/acgmeweb/Portals/0/PDFs/Milestones/NeurologyMilestones.pdf](http://acgme.org/acgmeweb/Portals/0/PDFs/Milestones/NeurologyMilestones.pdf)
Program Goals and Objectives

Goal:
- The neurology residency program will provide academic and clinical training for residents to be competent to enter independent practice in the field of neurology.

Objectives: the resident should:
- Provide comprehensive, compassionate, patient-oriented, evidence-based clinical care to patients with neurological diseases across the lifespan in different settings such as inpatient, outpatient, intensive care, emergency and consultation services. (PC, MK, IPCS, P, PBLI)
- Have acquired knowledge of basic and clinical neurosciences, to be able to pass neurology board certification on the first examination attempt and satisfy criteria for Maintenance of Certification. (MK, PBLI)
- Be able to analyze strengths and weaknesses in personal skills, knowledge and clinical practice and plan and implement improvement strategies. (PBLI, SBP)
- Provide prompt timely, respectful, concise, and effective communication (written or verbal) with patients, families, colleagues, peers, referring physicians and with medical personnel caring for a common patient. (IPCS, P, PC)
- Apply knowledge of neurological health care systems in cost and risk-benefit analysis for patients and population being cared for. (SBP, P, PC)
- Formulate structured clinical questions and systematically search the primary literature to identify relevant evidence-based and/or best practice recommendations to guide patient care (PC, MK, SBP)
- Provide patient-centered care with respect for patient autonomy and unique socioeconomic, cultural, demographic, and personal qualities patients possess (PC, P, IPCS)
- Participate, direct and coordinate patient care in neurological inter-professional health care teams such as stroke care team, epilepsy care team, outpatient team, and the VA team and use these principles in providing care in independent practice after graduation. (PC, P, SBP)
UK Neurology Residency Curriculum

The University of Kentucky neurology residency program is a categorical residency program with 48 months FTE training. The curriculum is designed in compliance with the policies established by the ACGME Neurology RRC and satisfies the requirements for board certification by the ABPN.

PGY I: 12 FTE months

(RRC Requirement: minimum of 8 months of internal medicine and maximum of 2 months neurology)

1. Internal medicine- 9 months (including 1 month of neurocritical care)
2. Psychiatry- 1 month
3. Adult neurology- 2 months
4. Clinical outpatient adult neurology exposure: last 3 months (~2 half-days per month)

PGY II-IV: 36 FTE months

(RRC Requirement: At least 18 months clinical adult neurology with at least 6 months clinical inpatient adult neurology, 6 months clinical outpatient adult neurology, 3 months clinical child neurology and 3 months elective)

1. Clinical inpatient adult neurology (includes inpatient and consultation general neurology, Vascular neurology and inpatient epilepsy)- 15- 18 months
2. Clinical outpatient adult neurology (continuity clinics)- 6.4 months FTE
3. Clinical child neurology- 3 months
4. Night-float/mandatory specialty experience (neuromuscular/EMG/NCS and neuroradiology)- PGY 2 (3 months), PGY 3 (2 months)
5. Electives: 7 months

Ref:
1. ACGME- Neurology residency review committee guidelines- Section IV.A.4, Page 10
   http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/180_neurology_07012010.pdf
2. American Board of Psychiatry and Neurology (ABPN)
Administrative Structure

Program Director
The neurology residency program director oversees the administrative aspects of the residency program as defined in Section II.A. of the Neurology RRC requirements. The program director is assisted by a Senior Medical Education Specialist, program coordinator, two chief residents and residency committee/s, including the Clinical Competency Committee. The program director is responsible for

- **Compliance**: with the existing UK-GME, RRC, department and University policies for recruitment, promotion, graduation and grievance related matters.
- **Liaison**: Liaise with ACGME and neurology RRC, the GME office, hospital and departmental administration for maintaining program infrastructure and innovations.
- **Clinical learning environment**: Ensure and monitor a safe and effective clinical learning environment including resident supervision, education (clinical and didactic), duty hours, impairment and transitions of care.
- **Evaluation**: Periodic evaluations and feedback for residents, faculty and training program.
- **Certification**: Oversee training dossier for all residents in the program and provide certification of competency for all trainees (past and present) when requested.

Senior Medical Education Specialist
The Senior Medical Education Specialist manages the daily operations and logistics for the UME/GME educational program and provides information, support, and problem solving assistance for medical students, house staff, program faculty, and education leadership. The Senior Medical Education Specialist is responsible for:

- **Accreditation oversight/compliance**: maintain knowledge and proficiency in LCME, ACGME, and Specialty Board requirements and continuously monitor program’s compliance with such.
- **Curriculum innovation**: advocate for innovative technologies to enhance teaching/learning, assist medical student and house staff in individual learning endeavors, as well as assist faculty when incorporating technologies in instruction, curriculum and assessment.
- **Quality improvement**: promote and facilitate improvement and ongoing evaluation and assessment in UME and GME educational programs by developing and analyzing outcome measures and benchmarks to assess implemented program improvements.

Program Coordinator
The program coordinator assists the program director by

- **Regulatory documentation**: maintain accurate and updated program ADS (accreditation data system) that meets current accreditation standards established by the UK-GME and Neurology RRC.
- **Record keeping**: maintain accurate training dossier on all trainees (current and past).
- **Monitor**: ensure timely completion of time-sensitive events including duty hours recording, evaluations, certifications such as ACLS, conference attendance, leave applications and in-service examinations.
- **Secretarial support**: provide secretarial support for the residents for activities such as verification of training, conference attendance, leave balance etc.
- **Coordinate**: residency related activities such as resident meetings, interviews, semiannual evaluations, research day etc.

Chief Resident
Each academic year, two residents (usually senior residents - PGY4, occasionally PGY3) will be appointed. The chief residents will divide their responsibilities at the start of the year as being primarily responsible for either, a) the PGY2-4 schedule (e.g. “administrative chief”), or b) the PGY-1 schedule and didactic program (e.g. “didactic chief”).
In instances when a PGY3 chief is appointed, the PGY4 chief will cover that individual’s administrative responsibilities during night float and stroke rotations. An annual stipend will be given to the chief resident.

1. **Selection process**: the chief residents are selected through a poll of current residents and with the approval of current faculty within the program. The resident must be in excellent standing in the program without any disciplinary actions and achieve at least a 50% raw score on the most recent in-service examination.

2. **Training**: the chief residents will be required to attend the annual graduate medical education chief resident workshop at the start of the academic calendar. In addition, the chief residents will join the weekly departmental education meetings, when clinical responsibilities allow, and meet with the program director regularly for mentorship on leadership, conflict resolution, motivational interviewing, and wellness strategies.

3. **Responsibility**: the chief resident will act on behalf of the program director to ensure the smooth administration of the program on a day-to-day basis.
   a. **Schedules**: the administrative chief resident will develop the *annual rotation and night float* for the program at the start of the academic year under the guidance of the program director. Care will be taken to ensure equitable distribution of the rotations, vacations and night floats during the year. The chief resident will make sure that the call structure is in compliance with the ACGME duty hour rules, Neurology RRC regulations and the department of neurology policies. The program director will maintain direct oversight of the process. *Monthly call schedules* will be completed and distributed in a timely manner before the start of the month. The chief resident will co-ordinate with the senior residents on the inpatient services to ensure the “mandatory 1 day in 7 off” is provided to all house staff in neurology. This information is collected and submitted to the Program coordinator for inclusion in the final call schedule.

   b. **Academic schedule**: the didactic chief resident is responsible for the preparation and implementation of the *academic schedule* for the program. The draft of the schedule is prepared in consultation with the program director and/or the curriculum sub-committee member of the residency program.

   c. **Conflict resolution**: the chief residents will both act as arbiters for resident conflicts related to calls, coverage and interpersonal issues and barring extraordinary circumstances (such as a direct conflict with the chief resident or violations of the policies set forth by UK-GME, UK Healthcare, ACGME and Neurology RRC) the chief resident is the first *court of appeal*. Although the program director has an open door policy for residents, violation of the established chain of command is discouraged as it undermines the authority invested in the chief resident.

**Residency Committees**
The following committees have been established to assist the program director with specific aspects in administration of the program:

- Residency recruitment- Chair: Jonathan H. Smith, MD
- Residency education and curriculum- Chair: Jonathan H. Smith, MD
- Resident research- Chair Gregory Jicha MD PhD
- Clinical Competency Committee- Chair: Siddharth Kapoor MBBS
- Grievance, complaints, impaired residents- Chair: Dan Han PhD
- Program compliance- Chair: Kimberly Jones MD
Clinical Competency Committee (CCC Policy)

Background:
The Next Accreditation System (NAS) was adopted by the ACGME in 2009. It intends to establish accreditation of residency training programs on a continuous cycle. It is an outcomes based approach. Evaluation and progression of the trainee is subject to the attainment of competency at different educational milestones as the resident progresses through the training program.

Members:
- **Chair**: The committee will be chaired by a teaching faculty member and serve at the discretion of the adult and child neurology program director in consultation with the chair of the department. This will be for a three year term with the option for reappointment.
- **Members**: The members will be appointed by the chair of the committee and will serve in 1-3 year terms, with the option for reappointment. The members selected will ideally be representative of the entire faculty in rank and subspecialty interest. Total number of voting members, excluding the chair will be an even number from 8-10, based on the current faculty size of 30. This may be increased with the expansion of faculty or resident pool. The Adult and Pediatric Neurology program directors will also be non-voting members of the clinical competency committee and assist the committee in its process.

Process:
- The members shall meet at least once every 6 months and more often as needed. Members may join the meeting utilizing telecommunication tools like phone or videoconferencing.
- Residency program coordinators will be available to assist in these meetings. They will help with scheduling, reserving an appropriate location and help with communication within the members of the committee. The coordinators will collect and organize all available data prior to the meeting to allow for meaningful interpretation and reporting of the decisions. This shall include, rotation evaluations, examination scores, publications and any other information requested by the committee.
- Minutes will be obtained by support staff and archived in a confidential manner. All deliberations at the meeting will remain confidential, although specific recommendations of the committee will be shared with the program director, individual trainees and their corresponding mentors.
- All decisions and recommendations of the committee will be based on the majority vote of the members present. Members absent from the proceedings will be assumed to have voted with the majority. This decision will be communicated to the program director and the chair of the department in a written report.
- The committee will specifically vote on one of the following recommendations for each trainee:
  - Resident has met all expected core milestones and is competent for independent clinical practice. Recommend graduation from the residency (for PGY-4)
  - Resident has demonstrated performance that meets or exceeds expected level of training. Recommend progression to PGY-3 or PGY-4.
  - Recommend progression contingent on_.
  - The resident has not met expectations in one or more domains. The committee does not recommend progression to the next PGY.
The decision will be construed as an advice of the committee and not be binding on the program director, who will then discuss the recommendations with the trainee and the trainee’s mentor to develop a remediation plan and/or pursue informal academic or disciplinary actions.

**Responsibilities:**
- The committee will review the competency based milestones published by the organizations recognized by the specialty board i.e. American Board of Psychiatry & Neurology for the Neurology, Child Neurology residency program. This is most likely to include publications from the American Academy of Neurology and the Child Neurology Society. Based on prevailing guidelines the committee will formulate tools and methods to assess competency in each domain. These will be updated as necessary.
- Residents will be responsible for ensuring that assessment according to the milestones in all domains necessary is completed and submitted to the program coordinator by March 31st and October 31st of each year. A fifteen day grace period will be provided in case of emergencies and to ensure completeness of the data.
- Compliance with prevailing licensure requirements is an obligation carried out routinely by trained physicians in practice. Trainee physicians should also be acquainted with this expectation. Delay in submission of assessments shall be considered as behavior lacking in professionalism.
- The committee shall meet in the second half of April and November of each year and the chair shall submit a report within two weeks. An interim report and a meeting may be necessary if required by the institutional GME or the residency review committee.

**Reporting**
The report of the committee shall include:
- Assessment of each resident and his /her competency against the established milestones. This may or may not include comparisons with peers within the department or at a regional/national level. This will also include a recommendation for the resident to progress or not progress to the next level of training. Remedial action may also be recommended with an opportunity for improvement before aversive action is taken.
- Commendations and or concerns if any will be noted. Performance, when greater than 2 standard deviations above or below the average of peers is present, will be duly acknowledged and commented.
- From time to time, the committee may institute awards, including monetary awards that acknowledge outstanding achievements and contributions of residents to the field of patient care, research, enhancing quality and safety, process improvement or the prestige of the department.
- The report shall include a feedback section for the resident which will be communicated to the resident in a separate letter and become part of the permanent record.

**Grievance:**
The clinical competency committee will be considered as a committee of experts whose decision will be non-binding but serve as significant advice to the program director and chair of the department. Complaints against the members of the committee or its final decision will be through the grievance process outlined in the residency policy manual.
This policy shall be initially approved by a majority of all the faculty members in the department. Any future changes will require the approval of the majority of members present at a faculty meeting.

**Siddharth Kapoor, MD**  
Chair, Competency Committee  
2013-2016
Clinical Learning Environment (CLER policies)

The Department of Neurology is committed to providing an effective learning and working environment for house staff and has implemented policies that comply with the Neurology RRC requirements (Section VI.A.2), as well as the University of Kentucky (UK) HealthCare guidelines for medical staff oversight of house staff (Policy # A09-025).

A. Policy on learning and working environment (Section VI. A)

The Department of Neurology Residency Program has instituted the following to ensure an effective learning and working environment for house staff:

- **Selection**: all house staff personnel are selected after a rigorous procedure that complies with UK Graduate Medical Education (GME) policies for resident recruitment (UK GME Policy & Procedure Manual). Each interviewee is scored using the six core competency measures (defined by ACGME) and multiple interviewers to ensure selected candidates will not have difficulty integrating into UK health care system.

- **Education of house staff and faculty (NPR-Section VI.A.1)**:
  - All new house staff personnel undergo a rigorous orientation process arranged by UK GME prior to beginning clinical duties. This orientation includes several courses including patient safety (electronic medical records, orders and prescriptions, hand-over policy), personal safety (occupational and environmental hazards, needle stick injuries), and professionalism (impaired physician, duty hours, and fatigue management).
  - Department of Neurology PGY1 orientation will include required web-based training on Patient Centeredness and Cultural Awareness and Sensitivity.
  - The Department of Neurology organizes a ½-day orientation session with education courses regarding departmental policies including professionalism, personal and patient safety, and goals and objectives of the program.
  - Additional educational opportunities for faculty include grand rounds focusing on faculty development topics, and the Annual Program Evaluation.
  - The house staff meet with the program direct at least once every other month to receive program updates, discuss concerns, and review program policies.

- **Work environment**: residents and faculty in the Department of Neurology are expected to work cohesively as a health care team, where each member clearly understands his/her role in patient care, including:
  - **Clinical responsibility** (NPR-Section VI.E): the neurology residency program has set clear guidelines for house staff clinical responsibilities based on year of training, patient complexity, competencies achieved and assessment scores.
  - **Team work** (NPR-Section VI.F): University of Kentucky is a tertiary care hospital that boasts of the availability of all specialties and ancillary services including rehabilitation services, other clinical consultation services, pharmacy and utilization review. The neurology residents receive training in and are expected to participate in inter-professional teams such as the stroke care team (comprising of stroke, neurosurgery and radiology faculty, rehabilitation specialists, nursing and pharmacists), epilepsy care team (comprising of epilepsy, neurosurgery and neuropsychology faculty, nursing and pharmacists), KNI outpatient team, VA inpatient and outpatient teams and the pediatric neurology team. All teams will also have rotating medical students.
Patient safety outcome (NPR-Section VI.A.3): Over the course of the residency, the neurology house staff is encouraged to identify potential areas of deficiencies in the delivery of quality healthcare. Every resident is expected to initiate or partner in a project that improves clinical quality and patient safety outcome.

Learning objectives (Section VI.A.4): The Department of Neurology has a well structured and robust educational program that assures accomplishment of learning objectives through a combination of robust faculty-driven didactic curriculum, supervised (and structured) patient care responsibilities as well as clinical teaching through bedside rounds.

- The Department of Neurology, University of Kentucky Healthcare and the VA do not employ or rely upon residents to perform non-physician service obligations, except in case of emergencies.

Professionalism (Section VI.A.5-6): All house staff in the Department of Neurology are expected to maintain high standards of professionalism in the work environment.

- Residents and faculty in the Department of Neurology are charged with providing medical care for their patient that is patient/family oriented and follows the principles of beneficence and non-maleficence using the prevailing standards of care (NPR-Section VI.A.5a-b).
- Residents and faculty in the Department of Neurology are expected to be physically and mentally fit when reporting to work to assure that the patient receives the optimal medical care. They are obligated to manage time before, during and after periods of clinical work such that they are adequately rested before resumption of clinical duties (NPR-Section VI.A.5d).
- Residents and faculty in the Department of Neurology are charged with placing the interests of the patient ahead of their own, including situations where care rendered would be sub-optimal or deficient due to impairment such as sleep deprivation, substance use or lack of expertise in self and peers. In these situations, it is expected that the physician would transfer care to another provider in the patient’s best interest (NPR-Sections VI.A.5e and VI.A.6).
- Residents and faculty are charged with the responsibility of staying abreast of current medical literature through the process of life-long learning. While the residents are assessed through various methods such as clinical assessments and in-service examinations, the faculty is expected to participate in CME courses and academic activities such as at grand rounds presentation or lectures to the residents and students (Section VI.A.5f).
- Residents and faculty in the Department of Neurology are expected to monitor patient care performance indicators. In addition to the feedback about performance from supervising faculty and program director at evaluations, the resident and faculty receives feedback about performance from the hospital administration on a host of factors including census, length of stay, complication rate and patient feedback. In addition, periodic chart reviews (stroke and epilepsy core competency measures) and chart audits (KMSF) also provide useful feedback to faculty (Section VI.A.5.g).
B. Transitions of care (Section VI.B.1-4)

Definition: Transition of care refers to the act of transfer of medical care of a patient to another health care provider. This could occur in different settings including inpatient and outpatient and may involve interns, residents, faculty and nursing staff.

Policy (NPR-Section VI.B): In compliance of policies instituted by The Joint Commission, ACGME, UK Healthcare and UK GME, the Department of Neurology assures safe and effective transitions of patient care between the neurology residents, interns and faculty. The handover policies apply to any situation where a transfer of patient care occurs.

1. Number of transitions (Section VI.B.1): The neurology residency program has moved to a night float call system that is in compliance with the new ACGME duty hour policies and assures that not more than three patient care handovers occur between residents per day. Continuity of care is ensured by:
   - Use of day and night call shift system
   - Offsetting the transition of team members on and off service- faculty transitions every Monday (weekly rotation); neurology residents every 4th Thursday (4-week rotation) and the intern on the 1st of each month (month long rotation).
   - Consultation and inpatient residents are part of same team ensuring communication as patients’ transition through different settings - ED, ICU, Floor and clinics.

2. Training (Section VI.B.3): All current house staff in the Department of Neurology have successfully completed hand-over process training and future trainees will be required to complete this process at the on-boarding sessions. This process includes mandatory attendance at a presentation approved by the UK GMEC (either at the GME orientation or program director presentation), completion of a post test and a “mock handover” of a patient to the program director.

3. Monitoring (Section VI.B.2): All residents who participate in patient care handover at shift changes (see procedure) are expected to sign the attendance sheet that will be monitored by the Education office (program coordinator). Faculty will on a random basis supervise the handovers to ensure compliance with the policy.

4. Non-compliance (Section VI.B.4): Any form of non-compliance with this policy must be reported to supervising faculty, site director (such as VA) and program director.

5. Schedules (Section VI.B.4): Department of Neurology call schedules (attending physicians and house staff) are readily available to all members of the team (residents, faculty, nursing and administration) in both paper (.pdf) and electronic format (New Innovations and BEEP).

6. Anticipated transitions of care:
   - Shift changes: Typically occurs two times a day (6:30 am and 5:30 pm) between the daytime residents and the resident on night call. A noon transition (11.45 am) may occur between residents on the inpatient service when one of them has to attend the continuity of care clinic.
   - End of rotation and/or service week: Outgoing resident team hands over the care of current patients on all inpatient services to the incoming resident team. Residents are expected to communicate a detailed sign-out by e-mail (using PSES/PSWP in subject line) summarizing the key information needed to efficiently pre-round on a set of new patients in the morning.
   - Outpatient clinic: Resident has to hand over details of patients seen in clinic using guidelines mentioned, if a follow up of critical lab result is needed.
   - Vacation: A resident proceeding on vacation will hand-over care of patients to the resident assigned to cover, if follow up care is scheduled during the time that the resident is away.
   - Graduating resident: is expected to hand-over care of patients to the resident assigned to cover at least 2 weeks before graduating
7. **Documentation:** The Sunrise Clinical Medicine electronic Handover Management Tool will be utilized to facilitate handovers at shift changes for primary services. This is an electronic, clinical tool which incorporates up-to-date test results as well as fields for manual entry to convey additional information. The following information is expected to be communicated at check-out. Particularly sick patients or those at high risk for decompensation will be noted specifically on the record, with an “If – then” strategy utilized during sign-out.

<table>
<thead>
<tr>
<th>ID</th>
<th>HPI</th>
<th>Diagnosis</th>
<th>Current medications</th>
<th>Studies</th>
<th>Disposition/To do</th>
<th>Check-out/on call</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>MRN</td>
<td>D.O.B.</td>
<td>Room #</td>
<td>Code</td>
<td>Status</td>
<td>Brief summary of presentation and pertinent medical problems</td>
</tr>
</tbody>
</table>

8. **Verbal communication:** Hand over process will occur as a face to face communication between the outgoing residents and the incoming residents. The outgoing residents will provide patient information as listed above. Both the service neurology senior and junior residents are expected to be present and supervise intern sign-outs. Separate intern and senior sign-outs are not acceptable. The incoming resident will read back and clarify information as needed. The transfer of neurology service pagers to incoming resident ensures a face-to-face transition.

**Procedure:**
For inpatient services at UK and VA: patient care hand-over will be performed as follows

- **Geography (where):** Pavilion A Tower 200 Room: 6-272 or Tower 100 A.106.172--resident workroom.
  - The workroom has limited badge access and is free from distractions.
  - The room is equipped with multiple computers with SCM and radiology reading station that should be running during the process.
- **Timing (when):** Handovers will typically occur at shift changes
  - Weekdays: 6:30 am: The night call resident hands over care to the residents on the various inpatient services (see below)
  - Weekdays 5:30 pm: The night call resident assumes care for the patients on the inpatient services
  - Weekdays 12:00 pm: Any resident on the inpatient service who has a COC clinic will transfer care to fellow resident on the same service.
  - Weekends 6:30 am: The outgoing call resident will hand over care to the incoming residents
  - Weekends 12:00 pm—1:00 pm: the residents who round on the different services will then transfer care to the call resident upon completion of rounds (for the current academic year), when their work for the day has been completed. The day call neurology resident will send a written communication in a password protected e-mail to the weekend day call resident, with an emphasis on being inclusive. Specifically, recently signed off patients should also be included as the weekend resident may still be contacted concerning these patients.
• Personnel (who): the following residents are expected to be available for the handover process
  o Resident and intern on the night float
  o Resident and intern (or senior resident) on the inpatient, stroke and consult services at the UK and VA

• Written template (what): the residents on all inpatient services will keep an updated list of the patients in the format listed above. A final update will be performed immediately prior to the sign-over times listed so that all information is up-to-date.

• Verbal element (how): The incoming and outgoing residents will meet face to face for communicating patient information in written and verbal form. In addition, this is the time for handover of the neurology service pager to the incoming resident.

For outpatient services at UK and VA:

• Geography (where): POD1 of the KNI clinic (workstation)

• Timing (when):
  o 1 week prior to resident proceeding on vacation
  o 2 weeks prior to the resident graduating the program

• Personnel (who):
  o Resident proceeding on vacation or graduating the program
  o Resident assigned to care for patients for the duration of absence

• Exchange of information will occur in a written format as documented above and verbally with pertinent issues.

For end of rotation handover of inpatients at UK and VA:

• Geography (where): Pavilion A Tower 200 Room: 6-272 (general neurology inpatient) or Tower 100 A.106.172 (stroke inpatient); VA residents work room (VA inpatient service); EMU lab for the epilepsy team.
  o The workroom has limited badge access and is free from distractions.
  o The room is equipped with multiple computers with SCM and radiology reading station that should be running during the process; the VA workroom should have CPRS running.

• Timing (when):
  o 2nd of the month at 4-5pm.

• Personnel (Who): the following residents are expected to be available for the handover process
  o Outgoing residents on the current inpatient rotation
  o Incoming residents for the same rotation.

• Written template (what): the residents on all inpatient services will keep an updated list of the patients in the format listed above. A final update will be performed immediately prior to the sign-over times listed so that all information is up-to-date.

• Verbal element (how): The incoming and outgoing residents will meet face to face for communicating patient information in written and verbal form.

Policy on alertness and fatigue management (Section VI.C of NPR)

• Education of house staff and faculty (Section VI.C.1a-b):
  o GME- orientation: All new house staff undergoes a rigorous orientation process arranged by the UK GME office before they are permitted to start clinical duties. This orientation includes training of fatigue and sleep deprivation including recognition of signs of fatigue and sleep deprivation and mitigation strategies.
UK- Neurology orientation: The Department of Neurology organizes a ½ day orientation session for its residents, where the program director discusses duty hours, rest and fatigue.

Online module provided by UK GME available through the CE Central website: http://gme.cecentral.com/

Grand rounds: A Department of Neurology faculty member Dr. Siddharth Kapoor attended a course on “Physician work hours, health and patient safety” and organizes educational activities (such as grand rounds, lectures and symposia) periodically to discuss sleep deprivation, signs of fatigue, physician fitness and its impact on the work environment.

Resident wellness: The Department of Neurology has adopted changes based on resident feedback to promote wellness and team-building, including sponsored quarterly social activities outside of work, and sponsored participation in mindfulness-based stress reduction classes at the Mind Body Studio with Dr. John A. Patterson, M.D.

Work environment (Section VI.C.1c): The Department of Neurology and the UK GME have adopted policies to minimize the negative effects of fatigue and sleep deprivation on patient care using the following strategies

- Call schedules: the house staff call schedules were modified to adopt a night float system such that are in strict compliance with the duty hours
- Design of clinical curriculum to maximize the protection of outpatient elective experiences and to avoid the chance that residents are pulled from electives to cover inpatient services.
- Provision of a refrigerator and microwave in the neurology hospital work room to allow for easier access to food and drink while on call.
- Continuity of care (Section VI.C.2):
  - Call schedules: All inpatient services in the Department of Neurology will have a clearly identified back-up resident at all times. This information is available in paper and electronic formats.
  - Recognition of signs of fatigue: the supervising physician- attending and/or supervising senior residents are expected to recognize signs of fatigue and impairment. In addition, each house staff is charged with self-recognition of these signs and report to the supervisors and the program director.

Back-up system: All faculty members and residents are encouraged to adopt fatigue mitigation processes such as naps, to manage the potential negative effects of fatigue on patient care and learning. In the event a resident may be unable to perform his/her patient care duties due to fatigue, illness, or similar issues the following back-up schedules are in place to ensure continuity of patient care. In general, the resident will contact the chief resident and/or program director. The back-up resident (as listed on the call schedule) will take over care from the impaired resident. In case of failure to identify or non-availability of the back-up resident (due to duty hour limitations), the chief resident or the program director will identify another resident (who is not subject to rest per duty hour rules) to take over care. In extreme situations the chief resident or the supervising faculty will be expected to provide care directly to prevent mishaps.

If the PGY-2 resident on night float is asked to see 14 or more consults in a single shift, the PGY-4 senior on chief call will be expected to arrive in-house to complete the shift with the junior resident. This number was specifically
chosen to balance the need for back-up for the PGY-2, but at the same time not creating an excessive amount of additional clinical responsibility for the PGY-4.

- The PGY-4 will have explicit permission to take the following day at their discretion to allow for appropriate rest and/or to ensure that these additional in-house hours do not create 80 hour work week violations. This decision is expected to be communicated to the daytime supervising attending, so that the PGY-4 is understood to not be expected.
- If the PGY-4 is on hospital service, they may be present through morning rounds to facilitate the transition of care.
- An exception to above is that if the PGY-4 has an assigned KNI or VA clinic in the afternoon, they will be expected to return in the afternoon to attend that clinic. In these situations, the PGY-4 will be “credited” with an additional half-day off that they can use during a subsequent elective month on a non-resident clinic day.
- These days should be reported to the education office for office tracking.

- Safety (Section VI.C.3): for house staff that is too fatigued to return home the following provisions are available
  - The University of Kentucky provides adequate sleep facilities for house staff too fatigued to safely return home.
  - Safe transportation via taxi (through https://cabvoucher.mc.uky.edu).

C. House staff supervision policy (NPR-Section VI.D.1-4)
The Department of Neurology assures compliance with the house staff supervision policy as defined by the Neurology RRC (Section VI.D.1-4) and the University of Kentucky Healthcare (Policy # A09-025). This policy provides guidelines for provision of safe and effective medical care to patients and ensures that house staff obtains skills, knowledge, and attitudes necessary for high quality patient care in a safe learning environment.

Definitions:
- Levels of Supervision (NPR- Section VI.D.3)
  - Direct Supervision: the supervising physician is physically present with the resident and patient.
  - Indirect Supervision with direct supervision immediately available: the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
  - Indirect Supervision with direct supervision available: the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
  - Oversight: The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.
- House staff definition
  - Intern: A resident in the first year of training post medical school
  - Intermediate resident: A neurology resident in the PG year 2 of training
  - Senior resident: A neurology resident in the PG year 3 and 4 of training.

All patient care provided by the house staff in the Department of Neurology will be subject to the following:
1. **Attending physician (Section VI.D.1):** Every patient who is cared for by house staff in the Department of Neurology will have an attending physician, who is ultimately responsible for the patient’s care. The attending physician will be appropriately credentialed and have treating privileges at the facility where care is being provided. This will include inpatient and outpatient services at the University of Kentucky and the VA. The attending physician will be clearly identified by the call schedule (paper and electronic format), patient’s medical records, team handover list and the census of the facility.

2. **Identification (Section VI.D.1a-b):** Every member of the treating team (Faculty, resident, student) will introduce and identify their role to the patient they are caring for. The designation for each member of the team will be clearly displayed by using an identification card that delineates name, training program and role including resident or fellow at all times.

3. **Supervision (Section VI.D.2):** All house staff are expected to provide patient care based on their level of training and competency. The Department of Neurology has established clear guidelines to define the levels of supervision of the house staff in patient care. These guidelines are based on level of training and competency demonstrated by the house staff. The senior residents are expected to serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident.

4. **Delegation of duty (Section VI.D.4):** The supervising physicians are expected to delegate portions of care to residents, based on the needs of the patient and the skills/training of the residents. Every house staff will spend sufficient time with the supervising attending physician to enable assessment of knowledge and skills so that patient care that is delegated to the resident is appropriate for the skill-set and training that the resident has acquired (Section VI.D.6).

5. **Determination of skills (VI.D.4a):** The program director and faculty, with the help of the clinical competency committee, will determine the privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care. While no national standards currently exist, the program has identified minimum criteria to determine competency for common procedures.

6. **Expectations based on year of training (Section VI.D.5.a):**

   **PG Year 1 (Intern):** all interns in the Department of Neurology will provide patient care either under direct supervision or with direct supervision immediately available. The intern, when on night float, will take cross cover calls for all neurological inpatients at night under the direct supervision of the neurology resident and indirect supervision of the senior resident and the attending physician. During regular hours, the intern assists the intermediate and/or senior resident in the efficient functioning of the neurology inpatient service. The PGY1 intern may supervise medical students.
   - Indirect supervision with direct supervision available:
     - Obtain a detailed history and perform a general examination on a neurological patient in a non-emergent setting
     - Perform an interval history and physical/daily progress note
     - Obtain records from other sources for their patients
     - Order non-invasive studies, labs for their patients
   - Direct supervision:
Performing a history and physical examination including neurologic examination in a patient presenting as a neurologic emergency - acute stroke, myasthenia crisis, GBS, status epilepticus, coma etc.

- Acute stroke care management including administration of IV tPA.
- Performance of lumbar punctures
- Any intern rotating in the Department of Neurology will not provide care to patients in the ICU except under direct supervision.

**Goals:**

- Proficiency in performing a history and neurological examination: although medical students are expected to know how to perform H&Ps, neurological examination is frequently a weakness for a new intern.
- Performance of a minimum of 15 Lumbar punctures under direct supervision. The 15th procedure will be performed under the direct supervision of the neurology attending physician who will determine competency to perform the procedure under indirect supervision.
- The intern is expected to keep a log of all patients seen and procedures performed.

**Direct supervision (by senior neurology resident)**

- Assessment and management of neurologic emergent conditions (month 1 of nightfloat).
- Assessment and management of ICU patients (month 1 of PGY2).
- Brain death assessment and discussion of end of life issues.
- Lumbar punctures until demonstration of competency (see above)
- Interpretation of EEG
- Interpretation and performance of EMG and Nerve Conduction

**Indirect supervision with direct supervision available (except month 1 of PGY2 year):**

- Obtain a detailed history and examination on a neurological patient in emergent and non-emergent settings (starting September 1, of the PGY2 year)
- Develop initial and daily routine care plans for the patients.
- Discharge planning
- Order appropriate studies including neuro-imaging studies.
- Perform Lumbar Punctures after 15 directly observed procedures during the PGY 1 or 2 years and certified competent by the program director.

**Goals:**

- Able to perform a detailed neurological H&P, localize the lesion, generate differentials and initial treatment plan in 60 minutes
- Identification, assessment and management of neurological emergencies including critically ill patients.
- Comfortable supervising intern on the inpatient service.
- Able to identify a normal EEG including sleep patterns.

**PG Year 3 and 4 (senior resident):** the senior neurology resident acts as the leader of the services they are assigned to. They are expected to serve as the supervising physician to the intern and the junior resident in the management of the medically complex patients, critically ill patients and neurological emergencies. The senior
resident will supervise the performance of the lumbar punctures by the interns and the junior residents if they are not felt to be competent. The senior resident is expected to be able to make assessment and plans on every patient on the service they are assigned to. This rigorous training assures progress towards independence. The PGY4 residents act as back up residents and “junior faculty” to the night call residents providing indirect supervision with faculty providing “oversight” supervision.

- Direct supervision:
  - The PGY3 resident should be able to generate preliminary reports for video and continuous EEGs and abnormal EMGs
  - Performance at least 10 botulinum toxin and occipital nerve block injection procedures to be certified as competent to perform under indirect supervision.

- Indirect supervision with direct supervision available:
  - Obtain a detailed history and examination on a neurological patient in a emergent and non-emergent settings
  - Act as a team leader for the service assigned including supervision of students, interns and junior residents on the service.
  - Write a brief summary of the patient’s condition including the assessment and plan for all patients on the service.
  - Review neuroimaging with the team and discuss rationale for treatment plans with the attending.
  - The PGY3 resident should be able to generate a preliminary report for routine (normal) EEGs, EMG and NCS.
  - The PGY 4 resident should be able to generate a preliminary report for routine and continuous EEGs and EMGs for common neurological conditions.

- Goals for the PGY3 resident:
  - Able to perform a detailed neurological H&P, localize the lesion, generate differentials and initial treatment plan in 50 minutes; 25 minutes for a follow up patient.
  - Identification, assessment and management of neurological emergencies including critically ill patients.
  - Supervise and be the team leader for the entire service assigned
  - Able to review and interpret neuro-imaging studies
  - Discuss end of life issues and prognosis in a severely damaged neurological patient.
  - Review and complete preliminary report for at least 15 routine normal EEGs and video EEGs.
  - Review and complete preliminary report for at least 15 routine normal EMG and NCS.

- Additional Goals for the PGY 4 resident:
  - Perform a new patient assessment in 45 minutes and a follow up patient in 20 minutes.
  - Able to review and interpret neuro-imaging studies including arteriogram, fMRI and PET scans
  - Review and dictate preliminary report for at least 50 routine normal and abnormal EEGs and 15 video EEGs.
  - Review and preliminary report for at least 50 EMG and NCS studies.
  - Performance of at least 25 Botulinum toxin procedures

**Guidelines for communication with faculty (Section VI.D.5)**

1. The junior resident (PGY 1) on the neurology service will communicate with the supervising physician (Upper level resident) for
a. New patient evaluation
b. Change in the neurological status for an existing patient
c. Patient is critically unstable/requires ICU transfer
d. Patient has coded or dies
e. Discussion on limitation of treatment/DNR/DNI with patient and/or family
f. Unresolved patient care/family issues requiring attending clarification
g. Decisions are beyond the house officer’s level of expertise

2. Intermediate level (PGY-2) resident is expected to communicate with the senior resident when
   a. New patient evaluation on night call (with attending physician if discharging a patient from the ED)
   b. Change in the neurological status for an existing patient
c. Patient is critically unstable/requires ICU transfer
d. Patient has coded or dies
e. Unresolved patient care/family issues requiring attending clarification
f. Decisions are beyond the house officer’s level of expertise

3. Intermediate level (PGY-2) resident is expected to communicate with the attending physician when:
   a. Discharging a patient from the emergency room
   b. Admitting a patient with any critical neurologic emergency, including hemispheric or cerebellar infarction, intracranial hemorrhage, status epilepticus, or neuromuscular respiratory failure.
c. Admitting any patient to the neurocritical care service.
d. The senior resident is unable to provide satisfactory supervision or there is uncertainty about how to proceed in patient care after consultation with the senior resident
e. Disposition conflicts arise with individuals superior in level of training to you (e.g. fellow, or attending)

4. The senior resident (PGY 3-4) will communicate with the attending physician and continue management based on attending input in these situations:
   a. Any critical neurologic emergency that requires admission to ICU including massive stroke, intracranial bleed, status epilepticus, myasthenic crisis in respiratory failure.
   b. A significant change in the condition of an in-patient that necessitates move to ICU including brain herniation, cerebral bleed secondary to stroke, development of status epilepticus (such as patient on the EMU service), cardiopulmonary arrest or death.
c. Occurrence of adverse event (severe allergic reactions, medication errors), conflict with patient, family or care-givers or sentinel events (near miss).
d. An invasive procedure is being contemplated (arteriogram, brain biopsy or non-neurological procedures for co-morbidities).
e. Brain death determination and withdrawal of care.
f. Any patient that is being discharged from the Emergency department or outpatient facility without a neurology attending physician having evaluated the patient.
g. Care of a patient that beyond the level of competency for a given resident (“over your head”).

D. Policy on resident duty hours (RRC Section VI.G and UK Healthcare Policy # A09-025)

Definition: Duty hours are defined by all clinical and academic activities that are directly related to the program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, transfer of patient
care, time spent in-house during call activities, scheduled activities, such as conferences. Duty hours will also include all moonlighting activities as defined in the relevant section. Duty hours do not include reading and preparation time spent away from the duty site (as defined in the ACGME glossary of terms).

For the neurology residency program, duty hours include

- Patient care activities: such as inpatient and outpatient patient care, in-house calls; administrative duties related to patient care (medical records, orders and follow up of results); and transitions of care.
- Moonlighting activities as defined in the moonlighting policy.
- Academic activities that are mandated by the residency program such as didactics, journal clubs and other conferences. This does not include preparation time.
- Research activities: all residents are expected to complete 1 research activity during the course of the residency. Research performed during a formal research elective month counts towards the ACGME work hours. Time spent in preparation for research does not count towards ACGME work hours.
- Extracurricular activities pertaining to residency such as activities related to memberships on residency and hospital committees that are required for accreditation purposes (GMEC, House staff, recruitment, class representatives and chief residency).
- Duty hours do not include reading, studying and academic preparation time (for activities such as grand rounds, journal clubs, and research proposals) spent away from the patient care site.
- Duty hours do not include time spent at home on call (home call) during which the resident is not physically present in the hospital.
- Duty hours do not include time spent on additional research activities since the program mandates only 1 during the course of the residency.

Duty hour policy:

- **Maximum Hours of Work per Week (NPR-Section VI.G.1):**
  - The cumulative duty hours worked by any house staff in the Department of Neurology will not exceed 80 hours per week averaged over a 4-week period.
    - The normal work days are Monday through Friday 7:00 a.m.-6:00 p.m.
    - Weekend day shifts are from 7:00 a.m.-6:00 p.m.
    - Night float shifts are from 6pm- 7am the following morning.

- **Mandatory Time Free of Duty (NPR-Section VI.G.3)**
  - All house staff working in the Department of Neurology will have a minimum of 1 day (defined as a 24 hour period) free of all residency related duties (defined above) per week, averaged over 4 weeks.
  - This does not include home-call days.
  - Generally, post-call days are not counted unless the resident is off for a minimum duration of 24 hours.

- **Maximum Duty Period Length (NPR-Section VI.G.4.)**
  - PG year 1 (Section VI.G.4a): A PGY-1 intern will not be scheduled to clinical duties exceeding 14 consecutive hours. In the Department of Neurology, the PGY 1 intern typically works from 7 am to 6 pm on day shift or from 6 pm to 7 am on night shift.
  - PG year 2-4 (Section VI.G.4b)
    - Residents in PG years 2 and above are scheduled to a maximum of 14 hours of continuous in-house duty as defined above.
    - Residents who have completed 14 hours of continuous in-house shift call are expected to leave the facility within 1 hour after completion of said shift of continuous duty period (Section VI.G.4.b.1-2).
• During this 1 hour, they are expected to transfer care of their patients to the incoming team; they may participate in educational activities.
• Under no circumstance is the resident allowed to assume new clinical responsibility.
• Neurology residents are not scheduled for outpatient clinics following 14 hours of continuous in-house night call.
  - In unusual circumstances, residents, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are strictly limited to:
    - Providing continuity of care for a severely ill or unstable patient,
    - Academic importance of the events transpiring,
    - Humanistic attention to the needs of a patient or family.
  - In these situations, the program director will seek explanation from the house staff to ensure it is a justifiable violation through New Innovations and/or UK email (Section VI.G.4.b.3). The program director reviews each of these submissions and tracks both individual resident and program-wide episodes of additional duty as part of duty hours oversight.
• **Maximum Frequency of In-House Night float (NPR- Section VI.G.6)**
  - Residents must not be scheduled for more than six consecutive nights of night float.
  - Residents should not have more than two consecutive weeks of night float or half of a calendar month (maximum 16 days) (Section VI.G.6.a)
• **Minimum Time Off between Scheduled Duty Periods (NPR- Section VI.G.5)**
  - Junior resident- PG year 1 (Section VI.G.5.a): the PGY1 intern will have a minimum of 10 hours between scheduled duty periods as defined above. Typically, scheduled duty periods are separated 11-12 hours apart and the senior residents and faculty have been instructed to relieve interns from clinical duties at the end of shift.
  - Intermediate resident- PG year 2 (Section VI.G.5.b): will have a minimum of 10 hours between scheduled duty periods as defined above.
  - Senior resident- PG years 3-4 (Section VI.G.5.c): the senior residents are considered to be in final years of training and are not bound by the minimum time-off rules mentioned in preparation to enter unsupervised practice of medicine. However they are still subject to the 0-hour work and 1-day off in 7 rules.
    - The senior residents will have a minimum of 10-12 hours between scheduled duty periods as defined above.
    - The senior resident charged with supervision of the inpatient service may of their own volition stay beyond the scheduled hand-over time to ensure continuous care for a sick patient or humanistic concerns to patient/family needs; at the request of the junior resident being supervised given complexity of the patient; events of exceptional educational value. This is a rare occurrence that is monitored by the program director and a justification is sought from the resident when it occurs through New innovations and/or email.
• **Call frequency**
  - Night float (Section VI.G.6): the Department of Neurology has moved away from the traditional call schedule to the night float system
- The resident of night float system will not be scheduled to more than 6 consecutive nights on night float. Currently, residents on the neurology service are scheduled for 5 consecutive nights on night float.
- The resident will not be scheduled for more than 2 consecutive weeks or 16 calendar days of the month of night float. The residents currently are scheduled to 1 week of night float each month.

- **Home call (Section VI.G.8)**
  - Time spent in the hospital but not time spent at home while on home call counts towards the duty hours specified above.
  - Residents on home call are subject to the 80 hour per week limit for hours when called in, and the 1 day per 7 off rules averaged over 4 weeks.
  - Currently, the PG year 4 residents are scheduled to perform “back-up” calls from home in a supervisory role to the junior resident on call. Each PGY 4 resident is scheduled to a maximum of 7 days of consecutive home calls.

- **Definition of averaging for the 80 hour and 1 day off rules**
  - The Department of Neurology adopts the policies set forth by the UK GME (Page 34 of the GME policies and procedure manual) for definition of the averaging rules as follows:
    - All house staff must have four days off within the first 28 days of any rotation regardless of the day of the month on which the rotation starts.
    - For rotations that extend beyond 28 days additional days off will be provided using the following format: one day off for each blocks of seven days worked, two days off for every additional 14 days worked and three days off for every additional 21 days worked.
    - Additional days off are not required for partial weeks worked.
    - The counting process starts over every time a house officer changes rotations.
    - If a resident takes vacation or other leave, the ACGME requires that vacation or leave days be omitted from the numerator and the denominator for calculating duty hours, call frequency or days off.

- **Holiday schedule/short staffed months**
  - During months having holidays or house staff vacations, the schedule will be modified such that there is compliance with all duty hour policies.

- Rotating residents (Page 11 of the duty-hour FAQ): All residents rotating in the Department of Neurology are bound by the duty hour rules specified above, unless an exception is made by the RRC of their parent program. In cases of dispute, the program directors of the home and neurology departments are expected to communicate to resolve the issue.

- Duty hour recording (Section VI.A.5.h): the residents are expected to honestly and accurately record the duty hours each week in the electronic system adopted by UK GME and the Department of Neurology. The current program used for recording duty hours electronically is New Innovations.
  - The program director and/or coordinator monitor the duty hour compliance and violations on a weekly basis and discussed at the weekly meeting.
  - Explanations are sought from residents who have recorded violations of the duty hours in an attempt to improve the schedule.
E. Policy on resident prolonged duty period (Section VI.G of NRP)

While every effort is made to ensure compliance with the ACGME duty hour policies, there are inevitable and unpredictable circumstances in which resident duty periods may become prolonged. This policy addresses situations when residents have to stay beyond their scheduled duty hours.

**Policy**

- All house staff is expected to make their best effort to comply with duty hour policies. The supervising medical staff (faculty) is expected to facilitate this effort.
- Situations that could result in extended duty periods:
  - Senior resident (PGY3-4): in preparation to enter independent/unsupervised practice and care for patients over irregular or extended periods, senior residents may of their own volition stay beyond their expected call duration or return to the hospital with fewer than 8 hours of rest (Section VI.G.5.c).
  - Only under exceptional circumstances (listed below) may a PG Y 1 or 2 residents prolong their duty period such that they may not be able to get a 10 hour break before their next shift. However, under no circumstance will the break be less than 8 hours.
  - Circumstances allowing prolongation of the duty period may include (Section VI.G.5.c.1.b)
    - Providing continuity of care to a SINGLE critically ill or unstable patient
    - Providing care for a SINGLE complex patient, the resident has been involved with during the call.
    - Educational event of exceptional value
    - Humanistic attention to the needs of a patient/family
- In those rare cases where they have to stay beyond the scheduled hours, the house staff are expected to:
  - Hand over care of the other patients at the end of their scheduled work period to the incoming house staff according to the protocol described.
  - Notify the supervising physician of the violation
  - Document the circumstances that led to the violation.
- All house staff in the Department of Neurology are expected to enter the duty hours in an electronic database (currently New Innovations), diligently and accurately at least once a week (Section VI.A.5.h).
- The neurology residency administration (coordinators) aids the program director in monitoring compliance with duty hour entry on a weekly basis. Reminders for completing the duty hour log are sent out as text pages and emails to all house staff (Section II.A.4.j.2).
- All violations of ACGME rules by house staff are automatically flagged to the program director and coordinator.
- Any house staff with a prolonged duty period is expected to provide explanation for the circumstances that led to the violations. The program director will then review the circumstances that led to the violation and make a decision if the explanation meets criteria listed above for justifiable violations.
- The program director will monitor both individual as well as program-wide episodes of prolonged duty periods and make suitable changes to call schedule if a pattern emerges (Section VI.G.4.b.3.b).

F. Policy on Moonlighting (NPR-Section VI.G.2)

**Definition:** Voluntary, compensated, medically-related work (professional and patient care activities) that are not related to the residency requirements is termed moonlighting (glossary of terms- ACGME). The Department of Neurology and the University of Kentucky GME considers house staff training and education to be a full-time endeavor with trainees enrolled on a full-time basis. Activities outside of the scope of the training program could potentially interfere with ability of the house officer to achieve the goals and objectives of the educational
program. Moonlighting activities, whether internal (within parent program or institution and affiliated sites, but not considered educational activity) or external (outside of the parent program and institution), may be inconsistent with sufficient time for rest and restoration to promote house officer’s educational experience and safe patient care.

Policy

To ensure that the resident’s moonlighting activities do not interfere with the educational goals of the program or ability to provide safe patient care (NPR-Section VI.G.2.a), the Department of Neurology has established the following guidelines for residents participating in moonlighting activities:

1. There is no requirement for a resident in the Department of Neurology to engage in moonlighting (as defined above).

2. Residents in the PG year 1 and 2 of training are not allowed to participate in moonlighting activities (NPR-Section VI.G.2.c and UK-Department of Neurology policy).

3. Residents who are in the PG year 3 and 4 of training may participate in moonlighting activities only after obtaining a written statement of permission from the program director at least 3 months prior to engaging in moonlighting activities (Attachment 4).

4. The program director’s decision regarding permission to moonlight will be considered final.

5. The resident must demonstrate the following minimum achievements before permission to moonlight is approved:
   a. Achieve a passing score on all rotations in the last academic year.
   b. An average score of 3 and above (or equivalent measure of “meets expectancy” or above) on all core competency measures on the semi-annual evaluation.
   c. Achieve a minimum of 50% score on the most recent in-service examination.
   d. Achieve a minimum of 75% attendance on all mandatory didactics sessions.
   e. Must not have a notice of concern, or an adverse action or disciplinary action such as probation or non-promotion/non-graduation in the current residency training.

6. The resident must provide details including the kind of activity as well as the name address and contact information of the facility of where the activity will be performed.

7. Resident must log hours spent moonlighting (on New Innovations). These hours are considered a part of resident training duty hours and hence, subject to the same regulations as in the ACGME duty hour policy. At no time should a house officer exceed the 80-hour work week through a combination of training program plus moonlighting activities (NPR-Section VI.G.2.b).

8. Inaccurate documentation of hours or violation of the ACGME duty hour policy from moonlighting activities will lead to immediate suspension of moonlighting privileges.

9. Deliberate attempts to hide moonlighting activities from program director or deliberate attempts at recording the duty hours inaccurately will lead to disciplinary action including potential dismissal from the program.

The written permission form will be placed in the permanent record of the house officer. Resident performance and a record of hours worked will be reviewed by the program director at semiannual meetings or other residency committee meetings to monitor the effect of moonlighting activities upon duty hours and upon performance.

Ref:

1. ACGME- Neurology residency review committee program guidelines- Section VI, Page 17  
   http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/180_neurology_07012010.pdf

2. UK Graduate medical education policy and procedures manual- Section VI, Page 32  
UK Neurology Resident Recruitment Policy

- **Resident recruitment committee**: Jonathan H. Smith, M.D., chief residents, and 1 class representative from each PGY as selected by program director
- **Applicants are accepted through Electronic Residency Application Service (ERAS®)**
- **All positions filled through National Resident Matching Program (NRMP)**
- **Total interview slots: 10-12 per available position** (goal to include at least 2/3 US seniors and graduates)
- **Criteria for selection**
  1. All applications are reviewed by the program director using the following **screening** parameters:
  2. Exclusion (Absolute)
     a. Any felony convictions
     b. Prior failed attempt at any USMLE
     c. Prior failed course or clerkship
     d. Has not completed a neurology clerkship during medical school
     e. Poorly written PS, indicating poor communication or organizational skills
  3. Exclusion (Relative), if – needed for “round 2” of filtering
     a. Step 1 ≤ 200, unless Step 2 shows ≥ 20 point improvement
     b. Step 2 ≤ 210
     c. Grade of “C” or below in any course
  4. Preferences (weights)
     a. UKY graduates or UK observership / visiting rotation (10)
     b. U.S. graduates (5)
     c. LOR comments that they will “rank highly at own program” or similar (5)
     d. Neurology and/or sub-I clerkship eval comments “functions at level of intern” or similar (4)
     e. USMLE step 2 ≥ 230 (3)
     f. USMLE step 1 ≥ 230 (2.5)
     g. Publications: ≥ 1 (2)
     h. Research experience (2)
     i. Graduate school or work experience (2)
  5. Null effect
     a. MD or DO (1)
     b. Visa status (1)

**Interview process**

a. Residents who attend the pre-interview dinner complete a MedHub based questionnaire regarding each applicant.

b. All applicants are interviewed by 4-5 interviewers including the program director, the department chair, a senior faculty member, a neuropsychologist, and/or a chief resident.

c. **Interviewer Scores, each interviewer to assess**:
   i. Qualitative comments
   ii. A single behavioral interview question (standardized scoring)
   iii. **Interview score**
      1. 91-100: Tier 1, ideal match at UK
      2. 76-90: Tier 2; above average
      3. 26-75: Tier 3; sufficient for ranking
      4. 1-25: Tier 4; sufficient with some reservations
5. 0: Do not rank

4. Rank order list generation:
   a. Initial rank order list to be generated by program director using average interview score, and subsequent adjustments excluding any “do not rank”, pre-interview dinner feedback, and qualitative feedback and impressions. Per institutional recommendations, special consideration will be given to applicants who expressed a desire to practice in Kentucky following training.
   b. The interviewees will be discussed at a resident group review (who will be blinded to ROL), feedback which will be run by the chief residents (who will have access to the preliminary ROL), and from which will be incorporated into the ROL (i.e., residents vote that applicant X should be “top 10, bottom 1/3rd, DNR, etc).
   c. Next, a faculty rank night will occur where the list will be reviewed and discussed in detail.
   d. Finally, the chair and program director will review the final ROL and submit prior to the submission due date.

5. Post-interview feedback
   a. A meeting will occur among the residency recruitment committee and education staff to reflect on the interview season for areas of improvement.
   b. Residency applicants will be sent a post-interview survey to assess the quality of our recruitment efforts.

Ref:
1. UK Graduate medical education policy and procedures manual- Section VI, Page 32
2. UK regulation: AR 5:4, for Enrollment of Graduate Medical Education Residents and Fellows (Draft version):
   http://www.uky.edu/Faculty/Senate/files/Meetings/1_2012-2013/20130218/GME%20House%20Staff%20(AR%205-4%209-18-12%20revision%20clean).pdf
House Staff Goals and Objectives by Level of Training

Based on the GME principles of experiential learning, progressive responsibility and conditional independence towards neurological practice, the following guidelines have been established as minimum achievable goals for the residents at the junior (PGY 1), intermediate (PGY 2) and senior (PGY 3 and 4) levels. These goals and objectives will be used by the clinical competency committee to assess resident promotion and graduation, and are likely to be modified once Next Accreditation System and Milestones are fully implemented.

House Staff Level: Junior (PGY1)

Level of supervision: Direct supervision
Supervisor: Attending physician; Upper level residents (PGY 2-4)
Duration: 12 months (8 UKMC and 4 VAMC)

Description
The PGY1 resident will spend bulk of the internship year on internal medicine service as stipulated by the Neurology RRC rules- 9 months on internal medicine service (including 1 month of neurology ICU), 2 months on neurology service and 1 month on psychiatry service. During this year, the PGY1 resident will have a broad exposure to medical illness in inpatient and critical care settings and will become competent in management of common medical conditions. This will prepare the resident to assume greater responsibilities as the PGY2 neurology resident in the management of medical co-morbidities in patients on the neurology service. PGY1 neurology residents are expected to “shadow” the PGY2 or 3 night float resident to gain additional exposure to neurologic emergencies when they participate in standard night calls. PGY1 residents will attend neurology resident continuity in clinic during the last 3 months of their intern year, while on medicine ward services to provide transitional exposure to neurology. PGY1 residents rotating on neurology are expected to complete an observed complete neurologic examination by the senior resident or attending and submit a signed OSCE form to the education office.

Milestone based goals and objectives for the PGY1 year:
1. Patient care: Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health (ACGME-neurology RRC). The resident must
   - Obtain a complete history (PC-H-1), perform a complete and relevant neurologic exam (PC-EX-1), list the elements of the child neurologic examination (PC-CHILD-1), demonstrate basic knowledge of management of patients with neurologic disease (PC-M/T-1)
   - Be able to recognize when a patient may have common neurologic disorders (PC-MD, NM, CVD,CBD, DEM,EPI,HA,MSD,NO,PSY-1)
   - Be able to describe basic features in non-technical terms of neurodiagnostic testing tools, including neuroimaging, electroencephalogram, EMG/NCS, and lumbar puncture (PC-NI,EEG,EMG,LP-1)
   - Acquire knowledge and skills to care for patients with common medical problems seen in inpatient internal medicine practice.
   - Be able to recognize and initiate treatment for common medical emergencies such as MI, electrolyte imbalances, DVT, respiratory failure etc.
2. Medical Knowledge: Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents:
• Should be attempting to localize lesions within the nervous system (MK-LOC-1), describe basic neuroanatomy (MK-LOC-1), summarize history and exam findings (MK-FORM-1), and demonstrate general knowledge of diagnostic tests in neurology (MK-DI-1)
• Should know the epidemiology, bio-medical (etio-pathogenesis), pathology, clinical presentations, diagnostic criteria and treatment for common medical problems seen on the inpatient medical service
• Have know the pharmacology of common medications used in medical practice such as antihypertensive, hypoglycemic, lipid lowering agents, antibiotics and psychotropic medications

3. Practice-based Learning and Improvement: Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:
• Acknowledge gaps in knowledge and expertise (PBLI-SELF-1), and use information technology to search and access relevant medical information (PBLI-SCI-1)
• Identify areas of strength and limitations in medical knowledge and neurological skills.
• Develop learning plans for the residency and set personal goals for each year.
• Identify mentors - resident, faculty and/or research.
• Plan activities that will help achieve goals for the year, including reading, didactics, conferences, bedside teaching and group teaching.
• Be able to use information technology in patient care; this includes medical records, medication prescription and patient education.
• Recognize sources for evidence based medicine and it application in patient care.
• Be able to identify errors in medical care - human errors as well as systems errors.
• Develop supervisory and teaching skills to improve medical practice and patient outcomes.

4. Interpersonal and Communication Skills: Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents are expected to:
• Communicate effectively and compassionately with patients, families, and colleagues in uncomplicated inpatient and outpatient setting (IPCS-TEAM-1). This includes greeting and introduction, discussion of medical condition, management and prognosis in layman terms
• Recognize socio-economic and educational diversity of patient population.
• Participate in inter-professional health care teams to improve patient care (IPCS-TEAM-1).
• Provide timely, legible and comprehensive medical records; this includes - H&P, daily notes, orders and discharge notes, in addition to accurately documenting transitions of care (IPCS-INFO1).

5. Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:
• Compassion, integrity, accountability, and respect towards patients, family, faculty, peers, health care personnel, and public (P-INT-1).
• Respect patient’s privacy by learning the HIPAA rules and regulations.
• Respect patient’s autonomy by including patient in health care decisions and honoring patient preferences.
• Recognize diversity of patient population w.r.t. age, gender, religion, culture, language, race, socio-economic, and educational backgrounds and provide non-discriminatory care to all patients (P-INT-1).
• Describe basic ethical principles (P-ETH-1)
• Uphold the dignity of being a physician and a neurologist while interacting with the patient, family, staff and public.
• Describe the effects of sleep deprivation and substance abuse on performance (P-INT-1)

6. **Systems-based Practice:** Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to:
   • Recognize differences in the health care systems at UKMC and VAMC.
   • Identify key members and components of different health care systems and teams, with respect to roles in maintaining patient safety (SBP-TEAM-1).
   • Recognize costs involved in providing medical care and efforts to minimize it by judicious use of resources (SBP-COST-1).

**Assessment:**

• **Tools:** Global clinical performance rating, direct observation, including an observed complete neurologic examination, review of records, 360 degree survey.
• **Assessor:** supervising faculty, patients, peers, staff.
• **All core competencies** will be assessed
• **Basis:** achievement of objectives listed above and performance on clinical rounds

**Recommended introductory neuroimaging videos by Dr. Lutkins:**

- [Basic approach to head CT](https://youtu.be/2WrrNt2QK2s)
- [Imaging of head trauma](https://youtu.be/ynSLrIE3Rjw)
- [Imaging of demyelinating disease](https://youtu.be/_zGY2fLNnj4)
- [Imaging of vascular disease](https://youtu.be/V5KWUguuGCQ)

**Suggested reading (provided at the start of PGY1):**

- Dejong’s neurological examination. Ed: William Campbell; Lippincott Williams & Wilkins; Sixth edition (April 5, 2005)
- Harrison’s Neurology in Clinical Medicine (2013)
- Wijdick’s Emergency and Critical Care Neurology (2016)
- Brazis’ Localization in Clinical Neurology (2011)
- Fenichel’s Pediatric Neurology (2013)
- Continuum: Lifelong Learning in Neurology (online through libraries.uky.edu)
House Staff Level: Intermediate (PGY2)

**Level of supervision:** Direct (1st month) followed by indirect supervision  
**Supervisor:** Attending physician; senior neurology resident (PGY 3-4)  
**Duration:** 12 months (6 UKMC and 6 VAMC)

**Description**
The PGY-2 neurology resident functions as the “neurology intern” and will spend a major part of the year on inpatient neurology services providing daily clinical care for patients. These include rotations on the UKMC and VAMC general neurology service, UKMC vascular neurology inpatient service and the UKMC comprehensive epilepsy service. Responsibilities include daily patient assessment, planning and ordering appropriate tests, supervision of interns and medical students, organize interdisciplinary meetings with social worker, case manager and rehab team, organization of pre-rounds and attending physician rounds. In short, the PGY2 resident is responsible for providing logistics of care from admission to discharge on the inpatient service. It is only through performing H & P exams, daily progress notes (SOAP), order writing, instruction follow-through from a senior resident and attending physician does the intermediate resident develop required competencies to become a senior resident. The junior resident performs direct supervision of interns and rotating residents on the service; interfaces with other members of the team such as nursing, social worker, and pharmacist and rehabilitation technicians in the accomplishment of daily patient care. The junior resident is expected to oversee the intern’s daily notes and provide a summary assessment and plan. The PGY2 neurology resident provides bulk of the in-house neurology night call.
The PGY2 resident will attend two ½ days/week of COC clinics at UKMC and VAMC as well as one 122 day per month of pediatric outpatient COC clinic. The PGY2 resident will have additional outpatient exposure during 1 month of outpatient specialty clinic rotation. The PGY 2 resident will attend all mandatory noon didactics and conferences.

**Milestone based goals and objectives for the Intermediate level resident (PGY2 year):**

1. **Patient care:** Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health (ACGME-neurology RRC). The resident must
   - Obtain a complete and relevant neurologic history and perform a complete neurologic examination accurately (PC-H,EX-2)
   - Demonstrate knowledge and skills to care for patients with common neurological conditions seen in inpatient and outpatient adult neurology practice (PC-MD,NM,CVD,CBD,DEM,EPI,HA,MSD,CHILD,NO,PSY-2).
   - Recognize neurological emergencies and initiate treatment for conditions such as ischemic stroke, cerebral hemorrhage, convulsive status epilepticus, myasthenia crisis and spinal cord emergencies (PC-M/T-2)
   - Be competent in the performance of Lumbar puncture, interpretation of CSF results, and understanding of complications (PC-LP-2)
   - Be able to describe basic features of EEG and EMG/NCS methodology and testing (PC-EMG,EEG-2)
   - Be able to review and interpret CT/MR/angiogram images of the brain and spinal cord for common neurological disorders especially emergent conditions such as stroke, ICH, tumors, hydrocephalus (PC-NI-2)
2. **Medical Knowledge**: Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents:
   - Should know the epidemiology, bio-medical (etio-pathogenesis), pathology, clinical presentations, diagnostic criteria and treatment for common neurological conditions in inpatient and outpatient neurology service.
   - Should know basic neuro-sciences: anatomy, physiology, pharmacology, pathology, with attention to localizing to basic regions of the nervous system (MK-LOC-2).
   - Should know the pharmacology of medications used in neurologic practice such as anti-epileptic, headache medications, psychotropic medications, commonly used immunomodulators.
   - Should demonstrate application of the acquired medical knowledge to patient care, identifying relevant pathophysiologic categories to generate a broad differential diagnosis, and discussing general diagnostic approach to clinical problems (MK-FORM-2).

3. **Practice-based Learning and Improvement**: Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:
   - Incorporate feedback to identify areas of strength and limitations in medical knowledge and neurological skills (PBLI-SELF-2).
   - Develop personal learning plan using data provided at the semiannual visit and NRITE scores. This includes activities such as reading, didactics, conferences, bedside teaching and group teaching.
   - Maintain accurate records of duty hours and case logs.
   - Use information technology in patient care; this includes medical records, medication prescription and patient education.
   - Use available resources for evidence based medicine and its application in patient care (PBLI-SCI-2).
   - Be able to identify errors in medical care- human errors as well as systems errors.
   - Develop supervisory and teaching skills to improve medical practice and patient outcomes.
   - Attend grand rounds, grand rounds, journal club presentations and regional conferences.
   - Supervise junior residents, nurses and teach peers, juniors, nurses, patients and family.

4. **Interpersonal and Communication Skills**: Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents are expected to:
   - Communicate effectively and compassionately with patient and family in inpatient and outpatient setting, engaging in shared decision-making practices (IPCS-TEAM-2), and educating patients about their disease and management (IPCS-INF-2).
   - Communicate effectively with peers, health care professionals and agencies (nursing homes, rehabilitation facilities) to improve patient care (IPCS-INF-2).
   - Manages simple patient/family-related conflicts (IPCS-TEAM-2)
   - Recognize socio-economic and educational diversity of patient population.
   - Organize and direct inter-professional health care teams to improve patient care.
   - Provide timely, legible, accurate, and comprehensive medical records; this includes - H&P, daily notes, orders and discharge notes (IPCS-INF-2).
   - Provide effective and timely neurology consultations to other physicians including relevance of the consultation and prompt communications.
5. **Professionalism**: Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:
   - Demonstrates appropriate steps to address impairment in self (P-INT-2)
   - Compassion, integrity and respect towards patients, family, faculty, peers, health care personnel, and public.
   - Respect patient’s privacy by application of HIPAA rules and regulations.
   - Respect patient’s autonomy by including patient in health care decisions and honoring patient preferences.
   - Develop patient care plans by incorporating diversity of patient population w.r.t. age, gender, religion, culture, language, race, socio-economic, and educational backgrounds and its impact on health care.
   - Determines presence of ethical issues in practice (P-ETH-2)
   - Consistently demonstrating professional behavior, and upholding the dignity of being a physician and a neurologist while interacting with the patient, family, staff and public (P-INT-2).

6. **Systems-based Practice**: Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to:
   - Recognize differences in the health care systems at UKMC and VAMC.
   - Identify key members and components of different health care systems and teams.
   - Describes cost and risk benefit ratios in patient care (SBP-COST-2)
   - Identifies and reports errors and near-misses (SBP-TEAM-2)
   - Identify system errors and plan patient care quality improvement research projects
   - Effectively coordinate patient care among members of the team.

**Assessment:**
- **Tools**: Global clinical performance rating, direct observation, mock oral board examination, simulation-based assessments, review of records, 360 degree survey.
- **Assessor**: supervising faculty, patients, peers, staff.
- **All core competencies** will be assessed
- **Basis**: achievement of objectives listed above and performance on clinical rounds

**Required reading (will be provided for you):**
- Dejong’s neurological examination. Ed: William Campbell; Lippincott Williams & Wilkins; Sixth edition (April 5, 2005)
- Harrison’s Neurology in Clinical Medicine (2013)
- Wijdick’s Emergency and Critical Care Neurology (2016)
- Brazis’ Localization in Clinical Neurology (2011)
- Fenichel’s Pediatric Neurology (2013)
- Continuum: Lifelong Learning in Neurology (also available online through libraries.uky.edu)
- Articles provided on MedHub organized by rotation
House Staff Level: Senior (PGY3-4)

**Level of supervision:** Indirect supervision or oversight supervision

**Supervisor:** Attending physician

**Duration:** 24 months (24 UKMC)

**Description**
The senior neurology resident acts as team leader on the inpatient service and “runs the show”. It is expected, under most situations, the senior neurology resident will be able to differentiate, based on H & P, the most common neurologic problems and initiate appropriate diagnostic tests and medical management. The senior neurology resident is responsible for overseeing inpatient and consultation services. The senior resident conducts resident rounds and participates in attending rounds. The senior resident will provide coverage for PGY 2 resident (on night float or clinic). The senior resident supervises the junior neurology resident, rotating residents, and interns through patient assessments and clinical decision-making in consultation with the attending physician. The senior neurology resident organizes the ward team, assigns responsibilities, and supervises team members in evaluations, assessments, presentations, and procedures such as lumbar puncture. The senior resident is usually the primary neurologist for medically-complex, critically ill, and ICU patients with assistance from an intern and junior resident, and indirect supervision from an attending physician. The senior neurology resident is the interface for communication with other health care team members such as nurses, rehabilitation technicians, social workers, and pharmacists to ensure optimal patient care. The goal for senior neurology resident is to achieve competency in patient care in preparation for independent practice.

The senior resident will continue attending two ½ days/week of COC clinics at UKMC and VAMC in addition to the one ½ day clinic per month of pediatric outpatient clinic. The senior residents will have exposure to outpatient specialty clinics during the month of outpatient rotation. The senior residents have increased flexibility in scheduling rotations by availing of the elective months in the final years of training. The senior residents will have increasing responsibility in the administration of the program. Some of these roles include class representatives, chief resident, House staff council member, and memberships on residency committee. The senior residents take a lead role in organization and implementation of portions of the conference schedules for residents, interns and medical students. Several senior residents participate in medical clerkship lecture series. The senior residents are expected to attend all mandatory noon didactics and conferences. The senior resident will provide medical student and intern teaching in a didactic or bedside format with focus on neurological examination and basic neurological care.
Milestone based goals and objectives for the senior resident:

1. **Patient care**: Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health (ACGME-neurology RRC). The resident must
   - Efficiently obtain a complete, relevant, and organized neurologic history (PC-H-3,4)
   - Efficiently and accurately perform a relevant neurologic examination, being able to visualize papilledema, assess a comatose patient, perform a brain death assessment (PC-EX-3,4)
   - Appropriately request consultations from non-neurologic care providers and neurologic subspecialists for additional evaluation and management (PC-M/T-3,4)
   - Independently direct effective, ethical, patient-centered care for outpatients and inpatients with common and uncommon neurological disorders across the lifespan including those who require emergency and intensive care (PC-M/T, MD,NM,CVD,BM,DEM,EPI,HA,MSD,CHILD,PSY-3,4)
   - Identify and manage complications of therapy (PC-M/T-4)
   - Interpret (and perform) standard neurological procedures such as EEG, EMG, botulinum toxin injections, occipital nerve blocks and review CT/MR images of brain and spinal cord (PC-NI,EEG,NCS/EMG,LP-3,4).
   - Provide timely and effective neurological consultations including brain death assessments and family discussions regarding neurologic prognosis in comatose patients

2. **Medical Knowledge**: Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents:
   - Able to describe advanced neuroanatomy, and can efficiently and accurately localize lesions to specific regions of the nervous system, correlating the lesion with the clinical presentation (MK-LOC,FORM-3,4)
   - Continuously reconsiders diagnostic differential in response to changes in clinical circumstances (MK-FORM-4)
   - Should demonstrate comprehensive (evolving and established) knowledge of neurological diseases across the lifespan- including epidemiology, bio-medical (etio-pathogenesis), pathology, clinical presentations, diagnostic methods and criteria and treatment.
   - Should demonstrate a comprehensive knowledge of social/behavioral sciences and basic sciences.
   - Should be proficient in pharmacology of medications used in neurologic practice such as anti-epileptic, headache medications, psychotropic medications and immunomodulator.
   - Should demonstrate application of the acquired medical knowledge to patient care, and is able to synthesize information to focus and prioritize among diagnostic possibilities (MK-FORM-3,4).
   - Accurately interprets results of common neurodiagnostic tests, understanding the diagnostic yield, cost-effectiveness (MK-DI-3,4)
   - Recognizes indications for less common evaluations, such as genetic testing (MK-DI-4)

3. **Practice-based Learning and Improvement**: Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:
Complete self assessment activities such as patient log (ACGME log), outcome data/chart audits, mortality and morbidity presentations, in-service scores, rotation assessments and semiannual evaluation.

Recognize limitations and deficiencies in medical knowledge and patient care skills (mortality and morbidity, patient log) based on self-assessment activities and set personal goals and self improvement plans (PBLI-SELF-3).

Develops and completes an appropriate learning plan based upon clinical experience (PBLI-SELF-3,4)

Complete a patient care quality improvement project to demonstrate competence in systematic analysis of medical care practices for deficiencies in health care delivery and implementing changes that lead to improved (PBLI-SELF-5)

Acquire knowledge of evidence-based medicine and standard of care practices by participation in case presentations, journal club, grand rounds and research projects mandated by the program.

Supervise junior residents, nurses; teach peers, juniors, nurses, patients and family.

4. Interpersonal and Communication Skills: Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents are expected to:

- Communicate compassionately and effectively with patients, family, and public of all backgrounds in inpatient, outpatient, ICU and community settings, including leading family meetings (IPCS-TEAM-3, IPCS-INFO-4).
- Manages conflict in complex situations, including across specialties and systems of care (IPCS-TEAM-3,4)
- Timely and effective communication with peers, health care professionals (physicians, pharmacist, and nurse practitioner) and agencies (nursing homes, rehabilitation facilities) to improve patient care.
- Demonstrates synthesis, formulation, and thought process in documentation, and mentoring colleagues in timely, accurate, and efficient documentation (IPCS-INFO-3,4).
- Effectively and ethically uses all forms of communication (IPCS-INFO-4)
- Provide effective and timely neurology consultations to other physicians including relevance of the consultation and prompt communications.

5. Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:

- Demonstrates sensitivity and responsiveness to diverse and vulnerable patient populations, provides compassionate care, in the context of disagreement with patient beliefs, and mentors others in the same regards (P-INT-3,4)
- Advocates for quality patient care (P-INT-4)
- Respect for patient privacy by implementing HIPAA rules and regulations in practice.
- Respect patient’s autonomy by including patient in health care decisions and honoring patient preferences.
- Incorporating diversity of patient population w.r.t. age, gender, religion, culture, language, race, socio-economic, and educational backgrounds in patient care decision making process.
- Analyzes and manages ethical issues in both straightforward and complex clinical situations (P-ETH-3,4)
- Uphold the dignity of being a physician and a neurologist while interacting with the patient, family, staff and public.
6. **Systems-based Practice**: Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to:

- Adapt medical practices to different health care systems such as UKMC or VAMC care.
- Coordinate care among within the health care team among physicians, nursing, pharmacy, rehabilitation, social worker, case worker and business manager.
- Apply knowledge of costs and risk-benefit analysis to clinical decision making in individual and population based care (e.g. stroke care networks) (SBPI-COST-3,4).
- Implement patient care quality improvement projects and/or available quality measures in daily practice to improve care (SBP-COST-4).
- Participates in a team-based approach to medical error analysis, identifying potential sources of system failure in clinical care (SBP-TEAM-3,4)

**Assessment:**

- **Tools**: Global clinical performance rating, direct observation, review of records, 360 survey.
- **Assessor**: supervising faculty, patients, peers, staff.
- **All core competencies** will be assessed
- **Basis**: achievement of objectives listed above and performance on clinical rounds

**Suggested reading**: (refer to recommended book list)
Evaluations

House-staff evaluation
The residency program employs outcomes based assessment tools for providing formative as well as summative evaluations that address core-competency measures. Multiple assessment techniques are employed to provide a comprehensive picture of the progress through the residency. The formative assessments are used to make a learning plan. With the adoption of the next accreditation system, the clinical competency committee will utilize these tools to provide the program director with a semi-annual report of the progress made by each resident.

Tools:
- **Clinical rotation evaluations**: You will be evaluated by every attending physician that you work with on any given rotation - inpatient, outpatient or elective. These evaluations are directly derived from the ACGME neurology milestones utilizing a 10 point system to indicate progression from levels 1 to 5. The attending physician is expected to discuss your evaluation and provide constructive advice for improvement. In turn, you are expected to elicit feedback from your attendings on your performance. The scores from these evaluations are aggregated over a semester, to identify areas of strength and weakness.
- **Real time feedback**: Real time feedback is often provided directly to faculty, especially the program director, from a variety of sources (e.g. nurses) regarding resident performance (e.g. professionalism, communication, patient care) in specific situations during the course of a rotation. The program director will communicate within 48 hours with both the resident and other involved members to obtain a timely and fair assessment, and then decide whether further measures are needed. Remediation will begin at the level of the trainee’s faculty mentor, and if recurrent, with the program director, with the possibility of disciplinary action, per GME protocols. A formal incident remediation report will be documented on MedHub.
- **In-service examination (NRITE)**: The NRITE is administered once a year, typically the last weekend in March. Participation is mandatory. The format of the test is very similar to the board certification examination. You will receive scores in 3 formats- total percent correct, percentile for year in training and percentile for all examinees. In addition, the AAN will provide you with the answers, which can be used to enhance your knowledge after the examination. Your score will be used to gauge your progress during your three years in training. Typically, individuals who do well on these tests have little trouble passing the Neurology Board Examination. A total score less than 50% (PGY2); 55% (PGY3); 60% (PGY4) and/or less than 66 percentile for year in training will jeopardize your ability to pass the board examinations and hence, necessitate academic remediation (non-punitive) with your assigned faculty mentor.
- **Mock Orals**: Because the oral board examination is being phased out, these are no longer required. Vignette based oral examination skills are tested at least 1/year/resident to determine clinical competency to progress to next level of training. It is anticipated that the clinical competency committee may use this format to assess clinical milestones achieved.
- **360° assessment**: Competency based assessment of a resident by staff, peers, student and patients will be used to provide a comprehensive feedback particularly for IPCS, professionalism and SBP.
- **Chart audits**: Random chart audits will be performed at least 1/year to assess compliance with billing and coding and practice-based guidelines as part of the practice management curriculum.
- **Neurology Clinical Evaluation Exercise**: Completion and documentation of a minimum of 5 clinical encounters is mandated by the ABPN to be eligible for the initial board certification. Competency in 3 areas (Medical interviewing, neurological examination and Humanistic qualities, professionalism, and counseling skills) must be demonstrated. The program will establish a schedule so that each resident completes a witnessed clinical encounter and a minimum of 5 encounters are completed during the residency. These encounters will be coordinated with the clinical competency committee so that the data can be used to identify clinical milestones.
- **Portfolio**: We expect the resident to maintain a portfolio of academic and learning achievements during the residency program. The portfolio can include case log, research projects, presentations and publications, lectures etc. The portfolio will be reviewed by the program director semi-annually.

Types
Formative semiannual program director evaluation: This is a twice-yearly private meeting with the program director where evaluations and progress are discussed. The following may be a part of the semiannual evaluation:

- Report from clinical competency committee
- Report from faculty mentor
- Data from core competency measures
- In-service examination
- Development of personal learning plans.

Summative evaluation: The program director will provide a summative evaluation at the time the resident separates from the program (graduation or transfer). This will include a summary of the training credit and a statement of competency achieved (independent practice for a graduating resident).

Faculty and program evaluations:

- Anonymous surveys are sent out to faculty and residents annually (usually in month of March) to obtain feedback about institutional facilities, support and effectiveness of the training program.
- UK GME collects resident feedback for faculty performance and effectiveness in teaching in the form of monthly or end of rotation electronic evaluation. The results are collated to maintained anonymity and sent to program director and department chair once a year.
- Annual program evaluation is usually conducted in the month of April. The evaluation is attended by representative faculty, residents, and education staff. The following cumulative (de-identified) parameters are discussed: resident performance, faculty development, graduate performance, program quality indicators (includes ACGME survey, resident and faculty anonymous surveys). An action plan is developed and implemented.

Ref:
1. ACGME- Neurology residency review committee program guidelines- Section VA, Page 14 [http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/180_neurology_07012010.pdf](http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/180_neurology_07012010.pdf)
House Staff Call Guidelines

Your assignment as a first call/responder is a requirement set forth by the ACGME and is an important learning tool. It helps achievement of milestones on the path to progressive responsibility and conditional independence. Additionally, the time spent in the ED is required to fulfill training requirements in neurological emergencies. The frequency of first call for PGY II residents and rotators may vary, but will always be in alignment with ACGME duty hour policies as outlined above. The resident on first call must spend the entire shift (day or night) on call in the hospital (either UK or VA). *To leave your designated post is considered ‘patient abandonment.’* You will be held accountable for any adverse event and you may be dismissed. Secure call rooms are available at both UK and VA for the on call resident(s). To enhance learning and retention of clinical knowledge, on-call residents should make every effort to read about each new patient’s clinical findings, problems, and management either while on call or the day following the patient encounter.

On-call staff (nights and holidays)

**Cross cover intern:** will provide cross cover for all inpatients at UK and VA.

**Neurology resident on first call (in-house):** covers all neurology consults at UK and VA; also cross-covers sick patients on the ICU, ASCU and EMU services. The neurology resident will provide the cross-cover intern direct supervision. The resident on call will discuss every consultation/new admission with the PGY4/Chief resident or the Neurology attending on call. A designated faculty for each of the services is available at all times if you require assistance.

**Neurology resident on second call (Home-call):** Second-call residents supervise and back up the first-call residents. PGY IV residents take second call and act as “junior attending” for first call resident and discuss consultations and admissions. This is done to fulfill the ACGME requirements of progressive responsibilities for patient management and prepare them for practice as independent neurologists. PGY III and IV residents are available for emergencies, and will provide in-house back up coverage for rotating interns or residents in addition to providing in-house coverage for the PGY II residents in July and August of each year (*Buddy call*). The average night call numbers are 50-55/year for PGY II residents and 10-15/year for PGY III residents. PGY IV residents will take back-up calls from home and act in a supervisory role to the first call resident.

**Neurology attending on call:** there will be separate attending physicians to provide coverage for UK-general neurology service, UK-stroke service, UK-epilepsy service and VA neurology service. The attending provides indirect supervision (with direct supervision available) for neurology residents on call. In addition there will be a Neurology attending on call for the Good Samaritan Hospital.

On-call staff (regular work-hours)

**Inpatient coverage** for a service will be provided by the residents and interns assigned to the service.

**Consultation services** will be provided by the following residents

- **UK- General neurology consult resident** covers all non-cerebrovascular consults at UKY hospital and ED
- **UK- cerebrovascular senior resident** covers all cerebrovascular consults at UKY hospital and ED
- **VAH- neurology senior resident** covers all neurology consults at VAH and VAH-ED
- **Child neurology** on child neurology covers all consults at UKY children’s hospital and Pediatric ED
- **Good Samaritan consultation resident** covers all neurology consults at GSH

**Neurology attending:** A separate neurology attending physician will supervise the consultation services for UK-general neurology, UK-stroke, UK-epilepsy, child neurology, VA neurology and Good Samaritan neurology. The
attending provides indirect supervision (with direct supervision available) and will discuss every consultation seen by the resident.

Guidelines

- Day shift extends from 7 am to 6 pm; night shift starts at 6:00 PM and ends 7:00 AM through-out the year.
- UK Emergency Department (ED) and VA-AO patients are to be prioritized and seen as promptly as possible. Please discuss any anticipated delays with the ED physicians. If you foresee that it will be impossible to see the patient in a reasonable time or other arrangements are not possible, call your backup.
- Acute stroke patients (IVtPA) are first priority and are treated as immediate emergencies until proven otherwise in consultation with the stroke attending.
- Consultations received from the Inpatients at UK, or VA from other services should be triaged by the on call/consult resident as urgent or routine. Urgent consults need to be answered as quickly as possible. Unless the consulting service specifically indicates that this is a routine request and can wait until the next day, make every effort to see the patient. All consults seen by the night resident must be signed out to the most day consult resident before leaving the premise.
- NSICU and ASCU patients admitted to the neurology service are to be rounded on by the respective consult service, and to be treated at night by the neurology on call resident if the need arises.
- When on call, each Neurology resident must maintain Patient & Procedure Database in an editable electronic format and be synchronized with the ACGME website.

Call etiquette: new admissions/consultations/cross-cover

- **No resident may refuse to see a consult**, no matter how “trivial” it appears to the resident. Such an action is considered not only to be dereliction of duty but also violation of multiple core competency measures. Disciplinary action will be taken.
- **Intern supervision**: Cross cover intern should be encouraged to discuss all neurological issues with the neurology resident. They should be supervised directly or indirectly with direct supervision immediately available per ACGME policy. The PGY1 intern is not permitted to make decisions on critically ill patients in the ICU without direct supervision from the neurology resident (physically present in the ICU). The intern on call is encouraged to participate in the initial consultation/admission process to enhance learning. In such a scenario the intern is encouraged to **complete the initial and** the neurology resident will provide a brief summary of the case.
- **Electronic notes**: All neurology service documentation (H/P, consultations, progress, event summaries should be in a electronic format in SCM. Hand-written notes are no longer acceptable on any adult neurology service.
- **Studies**: If you order a study, please follow through with the results.
- **Code blue**: When there is a CODE BLUE on a Neurology patient, the Neurology resident must be present. The attending is to be informed as soon as possible. The CODE BLUE TEAM will respond to the CODE BLUE, but the Neurology resident is to provide rapid and accurate information regarding the patient’s condition, treatment to the point of the CODE, and DNR status.
- **Mortality**: When a Neurology patient expires during call hours, the first-call resident should notify the staff on call and the patient’s family. He or she should request a postmortem examination from the family, write a death note stating the time of death and details surrounding it, and fill out the death certificate. An expiration summary must be dictated as soon as possible by the resident who was primarily responsible for the decedent.
• **Consultations**: Residents should request consultations for all inpatients on the neurology service that develop a serious problem beyond their level of expertise. Consultations should be officially ordered in the chart, and the neurology resident should call the resident being consulted with detailed information regarding the need for consultation and expected results. Stat consults should be addressed as such to the consulted service.

• **Team effort**: Please avoid leaving work for the night call resident and ensure that they leave the hospital on time so that we are compliant with the duty hour policies. If you get a call for a consult at 5:45 PM, you should generally see that patient and not leave it for the night call resident. If you are swamped and you absolutely cannot see the patient in a timely fashion, call a fellow resident for assistance. Team playing (not dumping) will ultimately make everyone’s lives easier and moods better. Additionally, it is nice to know your fellow resident(s) will help you out. Violations of the duty hour policies will trigger alterations of the schedules.

• **Neurology expects**: Often while you are on call, the attending will call you about a patient that is expected in the ER for an evaluation. These patients have often been referred to us from community physicians (UK-MDs) for our assessment. Like any patient, you will see the patient, present the case to the attending, and make a disposition. Unless stated otherwise, a neurology expect in the ER is just that, and is not necessarily an admission. In other instances, the attending may have already decided that the patient needs to be directly admitted and may have coordinated the admission with the bed coordinator. *If in doubt please call the attending on call for clarification.*

• **Education**: When students are rotating on Neurology, both first-call and second-call residents should take the time to teach students and rotating off-service residents and encourage their participation as part of the Neurology team. Neurology residents who see a patient with a rotator or intern have an obligation to teach the neuro-exam and explain exam and imaging findings to their junior colleagues.

**Good Samaritan calls**

• **Week-day calls** from the Good Samaritan hospital will be assigned to the resident covering Good Samaritan who will then staff the patient with the attending on call for GS.

• **Night and weekend calls**: Given the small size of our residency program and an incomplete resident complement, overnight and weekend calls will continue to be handled by the faculty directly.

• As always, all consultation noted have to be dictated.
Leave Policy

General
The Department of Neurology has devised an educational program for its residents based on supervised training at its affiliated institutions that includes attendance at multiple departmental conferences and protected time in clinic. The Department recognizes that days off are important to one’s well-being, and therefore respects and complies with all ACGME requirements for days off. It is recognized that when a physician is away from the home institution that urgent matters with their outpatients may arise. It is usual, customary, and a part of the ACGME core competencies (professionalism, systems-based practice and communication skills) that if a resident is away from the home institution that all potentially affected parties are notified.


The following are policies specific to the residents in the department of neurology and are in addition to the UKY-GME policies.

- A total of **fifteen (15) paid vacation days per year are allowed for all residents PGY2-4.**
- **Requests for vacations are due MAY 1:** All requests for vacations, and call dates will be made through email- copies to Chief resident, program director and coordinator. Emails are time-stamped and will be placed in the resident portfolio and will be used on cases of disagreement.
- **Electronic absence sheets:** A signed and completed electronic absence form must be provided to Program Coordinator at least 6 weeks in advance.
- **Covering resident:** To provide continuity of care, you must obtain the signature of a resident who will cover for you during your absence, including your clinic task box.
- **Restrictive covenants:** Unless there are extenuating circumstances, Weekdays away from the home institution will not be allowed during months of July, November and December. Exceptions to this rule will be made on a case by case basis by the program director after consulting with the chief resident to ensure adequate coverage of services.
- **Mandatory days off:** The senior resident on the inpatient service is responsible for allocating “1 day in 7 off” to junior residents on the service and email this information to the chief resident 2 weeks before the start of the rotation to ensure timely and accurate information in House-staff and BEEP.
- **Annual rotation and night call schedule:** The Chief resident will prepare a draft of the call schedule for the academic year by June 15 based on rotations and vacations requested. All requests for changes to call dates should be made prior to the 10th of the preceding month by emailing the chief resident (with copies to Program director/coordinator). Feasible requests will be honored on a first-come-first-served basis.
- **Last minute changes:**
  - You are responsible for the calls for which you are scheduled. If you have to switch at the last minute, you are responsible for finding a replacement. If no replacement is found, you are obligated to complete that call, except in cases of personal/family/medical emergency.
  - In case of personal/family/medical emergency, please notify the Chief resident first. If the Chief resident cannot be reached or is unable to solve the issue, contact the Program Director. Every effort should be made to solve such issues on a resident level. Only in the case of an emergency should the Chief resident or program director be asked to make an executive decision and change the schedule for you.
- **Violations:** Unauthorized leaves may result in loss of vacation days, extension of residency training, or loss of compensation for the days. Egregious and deliberate violations of the leave policies may result in disciplinary actions including notice of concern, probation or dismissal from the training program.
- **Leave for interviews:** The Department of Neurology will allow up to five (5) working days for post-residency fellowship or practice interviews during residency training. Additional time off for interviews will be counted as vacation time. This is done to prevent loss of training days as well as disruption of the education program both for the resident travelling as well as the one covering. It is the resident’s responsibility to ensure adequate coverage when interviews are scheduled at a short notice. General leave policies as listed above will apply in addition
• **Leave for Conferences:** The Department recognizes that travel to off-site educational meetings can be an educationally useful supplement to this training program. The department recognizes that when residents attend outside meetings the traveling resident misses educationally important events at home. In addition such travel can place an increased burden of work on the other residents in the program which can interfere with their education.

• The Department of Neurology will sponsor attendance at least **one national meeting** in area of training per resident during residency training.

• When educationally appropriate, the program director may allow attendance at other educational meetings, including those with independent funding, during a resident’s training. Examples include J. Kiffen Penry Epilepsy mini-fellowship, the NRSP epilepsy fellowship, the Vanderbilt movement disorder course, the American headache society course and the Consortium of Multiple sclerosis fellowship amongst others.

• Additional travel to meetings will be allowed if you are the presenting author and must be pre-approved in writing by the program director and/or department chair. Except in extraordinary circumstances this will be limited to **1 conference/year**. Of course, coverage will be arranged by the involved resident in consultation with the chief resident before this can be authorized.

• Residents are encouraged to **apply for travel scholarships** from not-for-profit organizations such as the AAN. Receipt of scholarship does not guarantee approval for attendance without the approval of program director and/or department chair. Apply for scholarships only after permission for attendance has been obtained from the program director.

• **Conflicts of interest:** No resident shall solicit or accept funding for travel from a pharmaceutical or other commercial company/group. No pharmaceutical representative may offer travel or funding to a resident, except through the program director’s office. If travel or funding is offered to a resident, the resident should direct the representative to the program director’s office.

• **The decision of the program director is considered final in all matters related leaves and absence.**

**Travel policy:**

• Advise the education office of the desired conference as soon as the information is known and **before** submitting an abstract. Attendance and expenditures must be approved in advance: they are not automatically approved, as we will need to allocate a portion of the budget for expenses should your abstract be selected. No arrangements will be made until approval is given. Submit an absence request along with the travel request.

• Approval for any international conferences being held outside the U.S. will be decided on a case-by-case basis by Dr. Smith or Dr. Jones. Resident attendance at international conferences is generally discouraged by the GME office due to potential visa issues.

• If presentation materials (i.e. posters) are needed, residents must submit the final edit to the Education Office no later than 1 week prior to departing for the conference; earlier submission is better in case adjustments need to be made.

• Any reimbursement of expenses will be calculated and processed after the conference. Residents will work with the Education Office to process the appropriate paperwork for submission for reimbursement of expenses. Meal reimbursements are calculated on a per diem rate. Residents should not make charges to their hotel room when the procard is being used.

**Fair allocation of travel funds:**

1. At the beginning of the academic calendar, all residents should be asked to submit their desired conference attendances for the year. This is not currently being done. This is to get a ballpark estimate. Residents may continue to submit requests throughout the year.
2. The following decision-making algorithm is suggested, when travel requests exceed the available budget:

Preferences will be given in the following order:

a. Adult PGY-4s/Pediatric PGY-5s with abstracts accepted to national meeting and have not received funding before.
b. Adult PGY-4s/Pediatric PGY-5s with abstracts accepted to regional/state meeting and have not received funding before.
c. Adult PGY-3s/Pediatric PGY-4s with abstracts accepted to national meeting and have not received funding before.
d. Adult PGY-3s/Pediatric PGY-4s with abstracts accepted to regional/state meeting and have not received funding before.
e. Adult PGY-2s/Pediatric PGY-3s with abstracts accepted to national meeting and have not received funding before.
f. Adult PGY-2s/Pediatric PGY-3s with abstracts accepted to regional/state meeting and have not received funding before.
g. The order of preference will then be repeated in the same order for those that have previously received funding.
h. Adult PGY-1s/Pediatric PGY-1-2s will generally not be supported for conference attendance. Exception will be considered in rare cases, when the following criteria are met:
i. There is excess budget
   ii. The conference is relevant to professional growth in a neurologic discipline, and
   iii. The resident has received either a travel award, or will be honored with an award at the conference

Within each level preference will be given as follows:

a. The resident has received partial funding (eg, a travel award) or will be receiving an honor or award at the conference.
b. The resident has an abstract accepted based on a mentored research or quality improvement project.
c. The resident has an abstract accepted based on a clinical vignette/case-report.
d. The resident is attending for education only, and has no accepted abstract.
e. The resident will be re-presenting a previously presented project (eg, “recycling”).

3. The maximum amount allocated per conference per resident will be set at $2000 (“full funding”).

a. In situations where the conference is local (requiring less travel expenses), this amount may be adjusted (“adjusted full funding”).
b. In situations where the resident receives a travel award, this amount will be subtracted from the departmental funding amount.

4. In situations where further adjudication is required, decisions will be made by 2/3 votes by the Adult Program Director (JHS), Child Program Director (KSJ), and Department Chairman (MRD).

Ref:
1. UK Graduate medical education policy and procedures manual- Section II, Page 12
Neurology Inpatient Services

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 Chandler Medical Center or VAH neurology service. This is a busy, yet exciting time in your training, as you will be exposed to a broad spectrum of disease processes. It is through the repetitious process of seeing patients daily, will you become competent (and hopefully proficient) in management of neurological conditions. There are 5 neurology inpatient services- all with similar team compositions. These include the UK-General neurology; UK- stroke neurology; VAH neurology; UK- Child neurology and Epilepsy service.

Team Composition

**Attending** – All inpatient teams are supervised by a licensed attending physician who is ultimately responsible for the care of the patient on the service. Ideally, 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.

**Neurology Ward Resident**– The ward 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. The ward senior resident should take primary responsibility for ICU patients although, in some cases, this may be delegated to a Junior 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 deteriorates clinically. 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. The ward senior resident should take time to observe and instruct 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. 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 and hopefully recruit them to be future neurologists!! It is expected that the ward senior neurology resident, will examine every patient on the service and summarize the daily plans, prior to the attending rounds. All patients are required to have a resident (junior or senior) H&P in the chart. It is expected that the ward senior will examine (both patient and records) all new admissions of the day and assign them accordingly to the other team members. In addition to imaging studies, it is expected that the neurology residents will attend the EEG readings of their patients at the end of the day. The attending and residents reading the EEGs are sensitive to your work load and will make every attempt to pull your EEG and read it in a thorough, yet efficient manner. This will serve not only to keep you abreast of your patient’s conditions but also enhance your own EEG reading skills -- an absolute must for those of you who will enter the private practice of neurology and for all who wish to pass the Neurology Boards.

**Junior Neurology Resident**– the junior resident is a “neurology intern” who, with the PGY 1intern 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.

**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. All intern notes should have a neurology resident summary addendum. 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. 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. The intern and the medical students on the general and stroke services will have a mandatory weekly lecture. Please ensure that the interns and students are able to attend these. These lectures will be organized by the PGY4 residents under the supervision of the program director.

**Medical Students** - medical students should be treated as valuable members of the team and should be given the opportunity to perform blood-draws and (under close supervision) lumbar punctures. They should be given independent responsibility for the care of a small group of inpatients supervised by the neurology residents. 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. 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.

**How the ward team should function**

- The senior neurology resident is the leader of the inpatient service and directs all aspects of patient care in consultation with the attending physician
- **Pre-Rounds** – The senior resident should round on all new and old patients and provide a brief summary on the progress. This is a good learning experience for the senior resident and fulfills the GME principles of progressive responsibility and conditional independence. This is an important exercise to help plan out the day- orders placed and followed through; discharge planning. Pre-rounds should not just be a computer and telephone exercise. It serves several important functions including prevention of reversible causes of morbidity and discharge planning.
  - DVT prophylaxis
  - Decubiti prevention: frequent turns in bed, special mattress; unless contraindicated move patients out of bed to chair 2-3 times a day)
  - Aspiration precautions and atelectasis prevention
  - Lines (arterial or venous; central and peripheral), tubes and catheters when not needed or indicated should be discontinued. Examine lines daily to identify early signs of infection
  - Reconcile medications and keep dosages to minimum required; avoid prn analgesics, especially narcotics, sedatives and anxiolytics.
  - Assess patient mobility and ensure rehabilitation is instituted early.
  - Establish bowel regimens for bed bound patients with bulk agents and prn suppositories.
  - Pulmonary vitals (TV, NIF, FVC) should be monitored frequently if respiratory muscle weakness is a concern (myasthenia gravis, Guillain-Barre syndrome etc.).
- **Rounds** - Presentations should be focused and include pertinent information from the hospital chart and outside records. It should include the presenting complaint, important details from the history of present illness, any essential past medical history, pertinent findings (both positive and negative) on examination, localization of the lesion(s), a realistic differential diagnosis (emphasizing the most likely condition), results of already-obtained laboratory studies, and a plan for further evaluation and management.
- **Post-Rounds** –The team disperses to accomplish the necessary tasks of the day- place orders, follow up on results, complete discharges, perform procedures such as LP, and place appropriate consultations.
• **Consultation:** An effective consult can only be made if the consultant has a question to address. It is essential that you ask a question. Once a service has been consulted, please follow through on the recommendations. If you disagree with some of the recommendation, call the consultant and discuss the case. Sometimes, you can provide them with additional information that will put the case in a slightly different perspective that will change his/her recommendation. If you simply disagree, discuss it with the attending. Please make every attempt to request your non-emergent consults as early in the day as possible! This will ensure that your patient is seen in a timely fashion that day and that the case is staffed by an attending. It is poor form to call in a consult late in the day.

• **Family discussion:** Although time consuming, it is perhaps one of the most important tasks. It shows the family that you are concerned about their loved ones and makes them comfortable to be a part of the care. Nothing can be more disconcerting to a family member, than not knowing the status of their loved one. Remember, in most situations, their loved-one has taken ill acutely and the family is extremely scared and confused and simply needs a few questions answered. If you are simply swamped and unable to speak with relatives in a timely fashion, you will create immeasurable good will and save yourself a future hassle if you take a few minutes to briefly let the family know that you do not mean to make them wait and will see them as soon as possible.

• **Checkout rounds** at the end of the day provide a good opportunity to make sure that the day’s work has been completed and to go over any troubles that may have arisen during the day. The ward senior resident should review the progress with all team members before hand-over to the incoming team. Please see the Handover policy for recommended process.

• **Discharges/Chart Dictations** – All discharge summaries should be completed prior to the actual discharge of patients. The senior resident should anticipate the approximate discharge and task the resident concerned in formulating the summary. All intern summaries should be cosigned by the neurology resident. Except for stat dictations, which are necessary for nursing home placements, all dictations must be performed within twenty-four hours of discharge. Do not wait for a good time to dictate. This will only result in the accumulation of charts and an overwhelming task that will be difficult to overcome. In complicated cases, the discharge summaries should be performed by the ward resident. As a courtesy to your fellow resident(s), if you have taken care of a patient for an extended period of time and he/she is going to be discharged within a day or two after you leave the service, it is expected that you will perform this dictation. There is nothing more difficult than having to dictate a three-month stay on a patient that you have known for less than twenty-four hours. In carrying out this courtesy, you will save your fellow resident(s) much grief and create goodwill among yourselves. A good residency is dependent on having team players. If medical record responsibilities are not handled appropriately and in a timely manner, various disciplinary actions may be undertaken, including suspension (without pay) and withholding of paychecks. Moreover, these problems will become a permanent part of your training record and may provide long-term problems when, after completion of residency, you look for privileges elsewhere. Chart completion is a part of ACGME core competency- IPCS, PC and professionalism.

**Inpatient Consultation Service**

The neurology consultation services are provided by a senior neurology resident (usually PGY3 or 4). Occasionally rotating residents (usually upper level PGY2) from another service are present on the consult service. Consults begin at 7:00 AM and end at 6:00 PM, Monday through Friday. **When a consult is called to you, it is appropriate to ask "What is your question?"** If they are unsure, rather than becoming indignant, help them formulate their question. Every effort should be made to see a patient in a timely fashion. If you are particularly busy, you will need to triage your patients in terms of medical urgency. If you are with another patient, call the ER and inform them of your approximate time of arrival. **Do not ever refuse to see a consultation** or badger the consultation service into withdrawing the consultation already placed. Refusing to see a consult in a timely fashion violates the core competency of patient care and professionalism and will result in disciplinary action. If consult service is requested to talk to the family about the neurologic prognosis, it is a good idea to accede to the request. In such cases, the attending or the upper level resident should lead the discussion. Please **include the primary team in the discussion** to make sure that the family discussions are consistent with all team members.
Child Neurology
During each year of your neurology residency training, you will spend one month on the child neurology service. Unlike adult neurology, child neurology is almost exclusively a consult service and thus you will receive call to see patients and round on them later in the day with the attending. During this rotation, in addition to our continuity clinics, you will spend at least one half day in the child neurology outpatient clinic where your exposure to clinical problems will be enhanced.

Epilepsy Monitoring Unit:
One neurology resident will be assigned to the EMU each month. This is not an elective rotation and should be considered an inpatient service with similar needs to that of the general neurology or the stroke inpatient service. In addition to the functions described under the inpatient services section, the resident is expected to review the EMU data for the admitted patients each day and review the results with the attending. This rotation supplements the skills gained from the electrophysiology rotation listed below. The resident is expected to learn epilepsy syndromes, recognize normal and abnormal EEG patterns, recognize patients with clinical and EEG characteristics of non-epileptic spells, identify normal and abnormal sleep patterns on the EEG.

Ref:
1. UK neurology clinical curriculum
   http://ukneurology.com/education/curriculum.pdf
Neurology Outpatient Services

Continuity of care clinics
Continuity of care clinics are a requirement of the neurology RRC. In our program each resident is expected to attend one ½ day COC clinics each week at the University (KNI clinic) and VAH. An additional ½ day/month is spent in child neurology clinic that helps provide a comprehensive outpatient exposure.

- **Please arrive at the clinic on time**: UK clinic starts promptly at 1:00 PM, on Tuesday, Wednesday, or Friday and at 1:00 PM on Wednesdays and Thursdays at the VA. You will not be called or reminded. If you are tied-up with a particularly ill patient, it is your responsibility to contact the clinic. Your time in the outpatient clinic is as important as any other rotation and is not a time to schedule personal business.
- **Residents will not leave the clinic until ALL the patients have been seen or they have obtained permission from the clinic attending**. Residents have often been noted to leave their clinic as soon as they have seen their “allotted patients”. Remember that the clinic is meant to be an educational experience. Clinical experience cannot be obtained by not seeing patients!!
- **Patient calls have to be returned within 72 hours of receipt**. If the resident is on vacation, the back-up resident identified as part of the absence request will respond to these calls. If all else fails then the chief resident and program director will be asked to return the calls. Disciplinary action will be taken against the errant resident.
- **Electronic medical record tasks are expected to be addressed within 24 hours (priority) or 72 hours (routine)**. If the resident is on vacation, the back-up resident identified as part of the absence request will respond to these tasks. If all else fails then the chief resident and program director will be asked to address the task. Disciplinary action will be taken against the errant resident.
- **Residents may not cancel their clinic for any reason other than while on vacation**: All vacation requests are made before the start of the academic year to help accurate scheduling of patients to your clinic. If you wish to avail of leave (permissible leaves such as academic, conference leaves) outside of allotted time, you must notify the clinic manager at least 6 weeks in advance. VAMC Policy requires 30 days notice to cancel clinic. It is a good policy to arrange for a make-up clinic as a courtesy to your patients in these situations.
- **If you are ill**, immediately notify the Chief Resident AND Program Coordinator (218-5038) and they will take the appropriate action.
- Every attempt will be made to ensure that the entire team is not scheduled for the clinic on the same day, thus ensuring that a neurology resident is available to cover any problems on the ward, ER or consult services.
- Once you have arrived in the clinic, please stay near the clinic and check frequently for the arrival of your next patient. This will ensure that a patient is not put in an examination room and lost while you are reading or doing something else.
- If a patient is late to clinic, it is the attending’s responsibility, NOT resident, to decide on disposition.)
- Once patients arrive, they are brought back to the examination room where their vitals and medication history will be taken by a nurse or other clinic personnel. While this is being done, you should use this time to review the hospital chart or outside records, if they are available. The hospital charts are, for the most part, available in the clinic.
- **Obtain a history and physical examination and staff with the attending**. Staffing sometimes creates a bottleneck; however, every attempt is made to make expedite this process.
- **All clinic visits are required to have a dictation addressed to the referring physician**. The details of the note should follow the typical format of a complete evaluation and include history, past medical history, allergies, medications, social and family history, and review of systems, findings on examination, assessment and plan. As on the inpatient service, dictations **are expected to be complete within twenty-four hours of a patient visit**. If you find yourself waiting to staff a case with an attending, dictate the history and physical portion of your evaluation; the medical decision making can be dictated after staffing.
Electives
During neurology residency training, you will have some months (**3 months minimum**) available for elective time. During these periods, you should take the opportunity to strengthen any areas in which you feel deficient or in which you would like enhanced proficiency. Please make sure you notify the chief resident and the education office, which elective you will be taking at the start of the year.

*Please refer to the clinical curriculum for details of the elective listed.*

The available electives:
1. Epilepsy clinic
2. EEG
3. Neuro-muscular with EMG
4. Neurodegenerative (including movement disorders, behavioral neurology, and neuropsychology)
5. Headache (including neuro-ophthalmology and oral and facial pain)
6. Neuro-radiology
7. Neuro-critical care
8. Neuro-oncology (including neuropathology)
9. Stroke clinic
10. Multiple sclerosis
11. Sleep medicine
12. Research (with program director pre-approval)

Ref:
1. UK neurology clinical curriculum
Academic Guidelines

General principles

- **Personal learning plans and goals:** every resident is expected to develop a personal learning plan under the guidance of the program director and their mentor, which will be modified based on feedback from evaluations, NRITE score breakdown, and milestone competency deficits.

- **Attendance:** Residents are expected to have a minimum of 80% attendance at the mandatory conferences- Grand rounds, basic and clinical neuroscience course, journal club and the Mortality and morbidity conferences.

- **Quality improvement and patient safety project:** Pursuant to CLER requirements it is mandatory for all residents to participate in PS/QI projects. These projects if of sufficient scientific merit can substitute for the clinical research requirement with program director approval.

- **Research:** Participation in research activity is mandatory. Each resident is expected to participate in clinical/basic research based on interest. Every resident is expected to present the results at the annual residents’ day.
  - All residents are strongly advised to identify a research mentors during the PGY-2 year and develop a protocol with IRB-approval, if needed. All residents are expected to complete a course on ethics in Human subject research organized by the Collaborative Institutional Training Initiative ([https://www.citiprogram.org/Default.asp](https://www.citiprogram.org/Default.asp)) Alternate courses that are acceptable to UK office of research integrity can be substituted.

- **Annual resident research day:** All residents are expected to present their work at the annual research day organized in the first week of June.
  - PGY II’s – protocols, case report/series & literature review
  - PGY III’s - retrospective study of a disease
  - PGY IV’s - prospective study of a disease or treatment
  - Residents are encouraged to submit their papers for publication.

- **Faculty Mentorship:** Each PGY-2 resident will be assigned to a faculty mentor in a maximum 1:2 ratio, with an expectation for meeting at least semi-annually. The faculty mentor will be asked to document the encounter using a standardized form through MedHub, although any content maybe withheld from the program director to allow for open discussion between the pair.

- **Peer Mentorship:** Each incoming PGY-1 resident will be assigned to a PGY-3 resident prior to arrival to help with needs related to transition to the program. The expectation is for meeting at least quarterly.

- **Conferences & Courses:** Please refer to the detailed curricula (Attachment 2) for details
  - Conferences are organized under numerous formats to satisfy the academic needs of the neurology resident.
  - Conferences are organized by the didactic chief resident or a designee under the direction of the Program director.
  - Throughout the year, a rotating schedule is followed to cover most areas of basic and clinical sciences, in addition to topics of ethics, professionalism, communication, and career development to maintain broad coverage of topics that are of interest to our specialty and at the same time necessary knowledge for passing the in-service exam as well as the boards. New topics are added constantly.
  - All conferences are posted to MedHub, and made available to students, residents and faculty. Weekly lecture schedules are e-mailed to all the residents and faculty each Friday.
Sign-in rosters are available for all conferences held, which is the individual’s responsibility to document. **Attendance at conferences is monitored** (sign-in sheets) and forms a part of the semiannual assessment.

Low attendance at required conferences averaged over a 6 month period may result in disciplinary action. If you are on rounds or on other non-emergent clinical duty and it is time for a required conference, inform the attending that you are required to go to conference. If not allowed, inform the program director at the earliest opportunity. If you are taking care of a patient emergency or finishing up a clinic patient for whom you are primarily responsible, please inform the education office once you have completed your responsibilities.

**Resident Portfolio**

The ACGME core competency project includes a resident portfolio as a valid assessment method. A portfolio is a collection of products prepared by the resident that provides evidence of learning and achievement related to a learning plan. The portfolio can form the foundations of a robust curriculum vita at graduation.

The education office has created a comprehensive portfolio for all residents that can be used by the clinical competency committee for assessment of clinical competency and program director for the semi-annual and summative evaluations. The resident will be responsible for maintaining the portfolio. Examples of items to be included in the neurology resident portfolio are:

- Grand rounds and other presentations
- Medical student lectures and presentations
- Resident research project
- Resident QI project
- Presentations at local, regional or national meetings
- Publications in medical journals and book chapters
- Listing of meetings attended
- Administrative duties and roles
- Awards
Mentorship Program

Objective: The mentorship program is designed to guide the residents in the formative years of their careers and provide a sound foundation for an independent career.

Goals:
- To develop a role model for career growth
- To plan and monitor progression through the residency
- To address concerns in professional (and personal) life

Establishing a mentoring relationship with a resident can be critical for fostering their professional development. A faculty mentor can support a trainee in a variety of ways while also helping to identify and address issues that may develop during the course of residency. In general, a faculty member will be paired with one resident at the beginning of their PGY-2 and then continue to serve as their mentor for the entire period of training. Potential mentors may be identified by the trainee or assigned based on availability (absolute cap of 2 residents per faculty). Meetings between mentor and resident should take place at least twice yearly, but more frequent meetings may be appropriate based on individual circumstances.

1) What should be addressed in mentorship meetings?

A good place to start would be discussing the resident’s short term and long term goals. This provides a more structured basis on which to work. It makes the resident focus on what is important for them in the months and years ahead. Some experts recommend that each resident develop their own mission or vision statement to help guide them toward that ultimate goal. The program coordinator will make all resident data available to the mentor prior to the meeting to facilitate the interaction.

a. Common short term goals

1. Pass USLME Step 3 or Neurology Boards (review approach to studying)
2. Develop a research and quality improvement project
3. Write a case report
4. Improve work-life balance
5. Improve medical knowledge and communication skills

b. Common longer term goals

1. Selection to fellowship
2. Become a chief resident
3. Obtain a faculty position
4. Pursue career in research
Specific goals for each meeting can include (these can be sent to the trainee in advance of the mentorship meeting for efficiency):

a) Reviewing the goals of the resident
b) Discuss a particularly challenging case (clinically, emotionally, or ethically)
c) Discuss resident’s well-being (e.g., work-life balance, burnout)
d) Review curriculum vitae (CV), and that resident is keeping it up-to-date
e) Discuss any limitations to training or challenges
f) Discussing and planning career paths – goals for fellowship, assignments, etc.
g) Discuss and encourage research and quality improvement interests or progress
h) Discuss assigned readings based on interests

Mentors will be sent a standard report form through MedHub to the program director acknowledging that the meeting took place, and summarizing any relevant information which would require resources outside of the mentor-trainee relationship. It is also important for trainees to feel comfortable discussing confidential issues with their mentor that is not communicated to the PD.
Procedures for Grievances and Impaired Physician

The residency program has established guidelines for addressing house-staff grievances and physician impairment, both at intra-mural and institution levels. These guidelines are subject to institutional regulations (University of Kentucky Administrative Regulation AR 5:5). The following flowchart is obtained from the GME policy and procedures manual (http://gme.med.uky.edu/sites/default/files/GMEPolicyProcedureManual2011.pdf) and describes the different options that residents have to address concerns (intramural and extramural).

1. **Intramural resources (within department of neurology):**
   - **Chief Resident:** Contingent upon the level and source of concern, a resident should try to resolve conflict at a personal level, especially those related to interpersonal conflicts (Competency IPCS, PBLI, P); the resident can approach the chief resident to help resolve conflict.
   - **Faculty and program director:** If unresolved or conflicts with chief resident, the resident should approach the immediate supervising faculty, PD, and/or Department Chairperson. The program director and chairperson have a “open-door” policy to address pressing concerns. If concerns pertain to the departmental leadership, the resident can proceed to extra-mural resources as listed in the GME procedures and policy manual.
   - **Neurology grievance officer:** The Department of Neurology has assigned Dan Han, Psy.D, to serve as a consultant for addressing resident impairment, conflicts and concerns. Dr. Han’s counsels the resident and provides constructive plans to remediate the concerns which are discussed with the resident and program director (Competency IPCS, PBLI, P). The discussions are kept strictly confidential with access being limited to the program director and/or chairperson.
Program director: In the event a resident experiences difficulty related to poor performance or impairment, PD will schedule a meeting with the resident. Resident will also meet with his/her faculty mentor for remediation. A meeting that includes Department Chairperson may be scheduled if determined as necessary, as indicated by the PD’s concern level.

2. Extramural resources (please refer to page 14-15 of the GME procedures and policy manual).
   - GME office: Assistant and Associate dean for GME have an open door policy
   - House staff council: Any member of the house staff may contact a House Staff Council Representative to address and review concerns. Peer-selected members are chosen annually to serve as representatives to the House Staff Council
   - House staff academic ombudsperson: comprise of UK College of Medicine faculty members appointed by GME with the advice and consent of the House staff Council who mediate issues of concern raised by the house staff with representatives of the institution especially for conflicts involving the program administration or leadership.

3. Additional resources for physician impairment (extramural resources):
   - Department of psychiatry non-emergent counseling service: access to confidential consultation regarding the need for non-emergent psychiatric services is available through the UK Outpatient Clinic during business hours, five days per week. The telephone number is 859-323-6021
   - Department of psychiatry Resident Crisis Referral Program: access to confidential consultation for emergency psychiatric services is available to residents round the clock through the admissions office at The Ridge Behavioral System. Please call 859-268-6400 and ask for the Assessment Office. Identify yourself as a UK resident needing immediate evaluation. If admission is required, you will be asked to go directly to The Ridge, bypassing evaluation at UK ER.
   - REFER: A professional therapy clinic available to help with personal, couple, or family concerns. REFER is staffed by Marriage and Family Therapist-In-Training, educated with skills necessary to help work through a variety of personal issues. Contact UK Family Center at 257-1467/7755
   - Impaired physicians program: The Impaired Physicians Program (IPP) of the Kentucky Physicians Health Foundation (or equivalent for other specialties) will provide assistance to physicians with mental health or drug/alcohol related illness. It provides evaluation, referral for treatment and ongoing aftercare including regular meetings and compliance monitoring. IPP never reports participating physicians to the Kentucky Board of Medical Licensure unless 1) the physician is an imminent danger to the public, 2) the physician refuses to cooperate with IPP, or 3) the physician does not follow the treatment plan and/or does not respond to treatment. IPP serves as an advocate for the recovering physician with the Kentucky Board of Medical Licensure and other appropriate agencies. Confidential help for self or peer can be obtained by calling 502-425-7761.

4. Good faith efforts and malice: Some concerns raised potentially have injurious and far-reaching effects on the careers and lives of accused individuals. Therefore allegations must be made in good faith and not out of malice. Knowingly making a false or frivolous allegation will not be tolerated and will subject the person making such a report to disciplinary action. Every effort will be made to prevent retaliation directed at a person who has filed a complaint or participated in an investigation of an allegation. Any person found to have engaged in or attempted any form of retaliation is subjected to disciplinary action per University of Kentucky policy.

Ref:
1. UK Graduate medical education policy and procedures manual- Section II.F, Page 15
   http://ukneurology.com/education/curriculum.pdf
Useful Links

1. University of Kentucky neurology residency program
   http://ukneurology.com/education/adultResidency.html
2. ACGME- Neurology residency review committee- program requirements
   http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/180_neurology_07012010.pdf
3. American Board of Psychiatry and Neurology (ABPN)
4. UK neurology clinical curriculum
   http://ukneurology.com/education/curriculum.pdf
5. UK neurology didactic curriculum
6. American Academy of Neurology core curricula
   https://www.aan.com/residents-and-fellows/program-director-resources/core-curricula/
7. ABPN clinical evaluation exercise requirements:
   Forms: http://www.abpn.com/downloads/forms/ABPN_NEX_form_v2.pdf
8. ACGME case log
   https://www.acgme.org/connect/login
9. Collaborative Institutional Training Initiative
   https://www.citiprogram.org/Default.asp?
10. University of Kentucky regulation: AR 5:5 -Grievance procedures for house officers
    http://gme.med.uky.edu/sites/default/files/ar5-5.pdf
Attachments

1. Template for semiannual evaluations
2. Template for curriculum vita/resident portfolio
3. Recommended reading material
4. Permission to moonlight
5. Mentor performance review
6. Incident Remediation Report
Attachment: Semiannual evaluation template

Semiannual evaluation: checklist

1. Evaluations:
   a. Rotation
   b. 360 degree (if available)
2. RITE examination scores
3. Personal learning plan
4. Conference attendance
5. Publications
6. Presentations
7. Research/quality improvement
   a. IRB completion
   b. Topic
   c. Faculty mentor
   d. Progress
8. Administrative roles
9. Duty hour compliance
10. Awards
Faculty mentor:

Research mentor (if different):

**Clinical performance measures**

**Rotations**

<table>
<thead>
<tr>
<th>Month</th>
<th>Year of training and semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PGY1(1)</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

**Core competency measures** (Attending physician monthly rotation evaluation)

<table>
<thead>
<tr>
<th>Year of training and semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGY1(1)</td>
</tr>
<tr>
<td>PC</td>
</tr>
<tr>
<td>MK</td>
</tr>
<tr>
<td>PBLI</td>
</tr>
<tr>
<td>IPCS</td>
</tr>
<tr>
<td>P</td>
</tr>
<tr>
<td>SBP</td>
</tr>
</tbody>
</table>
**Certifications:**

- ACLS completion date:
- Hand-over certification date:
- CITI or similar training date:
- NIHSS certification date:

**Academic performance**

**NRITE scores**

<table>
<thead>
<tr>
<th>Year in training</th>
<th>Percent correct</th>
<th>Percentile in year of training</th>
<th>Percentile of all applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGY1</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>PGY2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGY3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGY4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Clinical examination (NEX-2)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Faculty</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Episodic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuromuscular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degenerative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lecture attendance:** percentage of mandatory lectures/didactic sessions attended

<table>
<thead>
<tr>
<th>PGY1(1)</th>
<th>PGY1(2)</th>
<th>PGY2(1)</th>
<th>PGY2(2)</th>
<th>PGY3(1)</th>
<th>PGY3(2)</th>
<th>PGY4(1)</th>
<th>PGY4(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Academic and extracurricular achievements

Research project
Title:
Research mentor:
Stage:

Patient care quality improvement project (if different)
Title:
Faculty mentor:
Stage:

Awards:
1. 

Administrative role or committee membership
1. 

Conferences attended
1. 

Presentations
1. 

Publications (journals or book chapters)
1. 

Personal learning plan

Comments from the Program Director:

________________________Date__________________
Jonathan H. Smith, M.D.
Residency Program Director, Neurology

________________________Date__________________
Books provided at the beginning of PGY1

- Harrison’s Neurology in Clinical Medicine (2013)
  - Recommend starting with Part I. Introduction to Neurology (Ch. 1 “Approach to the Patient with Neurologic Disease” to Ch. 6 “Technique of lumbar puncture”)
- Wijdick’s Emergency and Critical Care Neurology (2016)
  - Recommend starting with Part II. Evaluation of Presenting Symptoms Indicating Urgency (Ch. 3 “Confused and Febrile” to Ch. 12 “Comatose”)
- Brazis’ Localization in Clinical Neurology (2011)
- Fenichel’s Pediatric Neurology (2013)
- Continuum: Lifelong Learning in Neurology (online through libraries.uky.edu)
  - Recommend reading regularly throughout the program for up-to-date comprehensive topical coverage of neurology

Recommended reading list for adult neurology residents
(BOLD = popular choices among trainees)

Junior resident (PGY1)

- Clinical neurology
- Neuro-anatomy
  - Clinical neuro-anatomy: Snell (2009)
  - Fundamental neuroscience: Haines (2005)
  - Gray’s clinical neuro-anatomy: Mancall 1st ed
- Neuro-pharmacology
  - Basic and Clinical Pharmacology- Katzung (neuro-pharmacology section) handout- available online in medical library
- Neuro-pathology
  - In: Robbins Pathologic basis for disease Medical center library (online)
- Neurological examination

Intermediate resident (PGY2)

- Neurological examination
  - Aids to the Examination of the Peripheral Nervous System (O’Brien)
  - Plum and Posners Diagnosis of Coma and Stupor (2007)
- Emergency neurology
  - The Practice of Emergency and Critical Care Neurology- Wijdicks (2009)
- **Clinical neurology** *(Recommend obtaining 1 general reference book below)*
  - Continuum: Lifelong learning in neurology
  - Neurology in clinical practice: Bradley (2005)- Medical center library (online)
  - Adams & Victor’s Principles of Neurology, 9th Ed. (2009)- Medical center library (online)
  - Merritt’s neurology: Rowland, Pedley (2009)
  - Harrison’s Neurology in clinical medicine (2010)

- **Stroke and cerebro-vascular diseases**

- **Clinical neurophysiology- EEG**
  - Fisch and Spehlmann's EEG Primer: Basic Principles of Digital and Analog EEG (1999)

- **Pediatric neurology**
  - Clinical pediatric neurology- Fenichel (2009)

  **Senior residents (PGY 3 and 4)**

- **Behavioral/ cognitive neurology**
  - Principles of Behavioral and Cognitive Neurology (Mesuslam- 2000)

- **Clinical neurology**
  - Continuum: Lifelong learning in neurology

- **Clinical neurophysiology**
  - Essentials of clinical neurophysiology- Misulis 2002
  - Anatomical Guide for the Electromyographer: The Limbs and Trunk (Perotto)
  - Spehlmann's Evoked Potential Primer
  - Electrodiagnosis in Diseases of Nerve and Muscle: Principles and Practice: Kimura- 2001

- **Critical care**
  - The Practice of Emergency and Critical Care Neurology- Wijdicks (2009)

- **Epilepsy and EEG**
  - Puzzling cases of Epilepsy by Schmidt & Schacter (2007)
  - Epilepsy: A Comprehensive Textbook (3-volume set) Engel
  - Wyllie’s Treatment of Epilepsy: Principles and Practice: Wyllie- 2010

- **Headache**
  - Wolff’s Headache: Siberstein (2007)

- **Neuro-muscular**
  - Neuromuscular Case Studies- Bertorini (2008)
  - Focal peripheral neuropathy (Stewart)

- **Neuro-ophthalmology**
  - Essentials (Walsh and Hoyt) by Miller/Newman
  - Neuro-Ophthalmology Illustrated: Biousse
  - Clinical neuro-ophthalmology by Miller/Newman

- **Neuro-radiology**
  - The requisites by Grossman (2010)
  - Neurology Self-Assessment Focus on Neuroimaging, Espinosa & Smith LWW 2009
- Diagnostic imaging- brain by Osborne (2009)
Attachment: Moonlighting permission

Graduate Medical Education
Moonlighting Approval Form

House Officer Name: ____________________________________________

Training Program: ____________________________________________________________________

Current PGY Level: ____________________________________________

This moonlighting activity is (check one):

_____ Internal Moonlighting “Extra Work for Extra Pay”- additional patient care activities not required as part of the training program that are in or sponsored by the UK Healthcare system. House Officer is responsible for obtaining necessary license (Resident Training or Regular/Full). Malpractice coverage is provided.

_____ Internal Moonlighting “Other”- additional non-patient care activities such as other teaching assignments not required as part of the training program that are in or sponsored by the UK Healthcare system. House Officer is responsible for obtaining necessary license (Resident Training or Regular/Full). Malpractice coverage is provided as applicable.

_____ External Moonlighting- additional activities outside of or not sponsored by the UK Healthcare system and not a part of the training program. House Officer is responsible for obtaining necessary license (Resident Training or Regular/Full) and malpractice coverage.

For External Moonlighting, I require need a Certificate of Insurance letter: _____ yes ____ no

If yes, name/address of facility: ________________________________________________

______________________________________________________________________________

If yes, specific description of activity: ______________________________________________

______________________________________________________________________________

By initialing each I certify that I understand and agree to the following:

_____ I will moonlight only during periods in which I am not actively engaged in meeting my training program requirements. I understand moonlighting activities are not to be counted toward meeting my training program requirements. I will submit no billings for patient care services rendered during internal moonlighting.

_____ I have the appropriate and necessary license (Resident Training or Regular/Full).
I have obtained professional liability/malpractice insurance which covers any liability for this moonlighting.

I am not currently training under a J1 or HB1 VISA status or being paid by the military.

I must accurately record my duty hours including moonlighting hours per institutional policy. Failure to do so may result in disciplinary action and withdrawal of moonlighting privileges.

I understand required activities within my training program take priority. Moonlighting activities have the potential to interfere with time for rest and restoration. I will assume responsibility for assuring that moonlighting does not affect my ability to achieve the goals and objectives of my training program or provide safe patient care. I will remain fit for duty at all times.

My program director will be monitoring me for undue fatigue, inability to provide safe and effective patient care, and/or inability to fully participate in all educational activities. Any adverse indications will result in withdrawal of permission to moonlight.

I will inform the Program Director of any changes to this approved moonlighting activity. Additional moonlighting sites require a separate approval request.

House Officer Signature: ____________________________ Date: __________

Program Director Approval

With my signature, I:
  • Approve this house officer participation in the moonlighting activity
  • Attest that the resident is in good academic standing (not under Notice of Concern or Probation)
  • Attest that the house officer is not training under a J1 or HB1 VISA status or being paid by the military
  • Assume responsibility to monitor the impact of this activity on training including compliance with duty hours and withdraw permission to moonlight if indicated

Program Director Signature: ____________________________ Date: __________

GME Office Approval

Associate Dean for GME or Designee Signature: ____________________________ Date: __________

Effective 04-2014

CC: GME office; department personnel file
Attachment: Mentor Performance Review

Mentor's Twice Yearly Resident Performance Review

Evaluator: __________
Evaluation of: __________
Date: __________

Assessments to be kept confidential between faculty mentor and trainee and shared only at the discretion and agreement of the mentor-mentee pair.

1. Assessment tools reviewed:
   - [ ] Rotation
   - [ ] Conference attendance
   - [ ] Oral board sessions for ABPN (critical care, neurodegen, ambulat, neuromusc, peds)
   - [ ] 360 evaluations
   - [ ] Teaching

2. Resident's Strengths:
   - __________
   - __________
   - __________
   - __________

3. Resident's Areas to Improve:
   - __________
   - __________
   - __________
   - __________

4. Goals/Plans for Next 6 Months:
   - __________
   - __________
   - __________
   - __________

Medical Knowledge

Investigatory & Analytic Thinking
5. Resident's Strengths: 

6. Resident's Areas to Improve: 

7. Goals/Plans for Next 6 Months: 

<table>
<thead>
<tr>
<th>Practice-Based Learning and Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze own practice experience/QA; evidence based practice, apply knowledge of study designs to appraise literature. Use IT, teaching skills.</td>
</tr>
</tbody>
</table>

8. Resident’s Strengths: 

9. Resident’s Areas to Improve: 

10. Goals/Plans for Next 6 Months: 

<table>
<thead>
<tr>
<th>Interpersonal Communication Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationships with patients, listening skills, teamwork, chart notes/documentation</td>
</tr>
</tbody>
</table>

11. Resident’s Strengths:
### Resident's Areas to Improve:

- 
- 
- 
- 

### Goals/Plans for Next 6 Months:

- 
- 
- 
- 

#### Professionalism

Respect, responsiveness, accountability, ethical behavior, and cultural sensitivity

### Resident's Strengths:

- 
- 
- 
- 

### Resident's Areas to Improve:

- 
- 
- 
- 

### Goals/Plans for Next 6 Months:

- 
- 
- 
- 

#### Systems-Based Practice

Cost-effective practice, advocacy, collaborative care

### Resident's Strengths:

- 
- 
- 

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Resident's Areas to Improve:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Goals/Plans for Next 6 Months:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Scholarly professional activities, research, awards,</td>
<td></td>
</tr>
<tr>
<td>presentations over the past 6 months:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Career goals:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Resident feedback about educational experience/self-reflection:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Resident assessment of work-life balance:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Resident's progress of fund of knowledge review and developing a</td>
<td></td>
</tr>
<tr>
<td>plan for lifelong learning:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Attachment: Incident Remediation Report

Incident Remediation Report

Evaluator: _________
Evaluation of: _________
Date: _________

1. Date of Incident Report *
   _________

2. Date of Mentor Meetings *
   _________
   _________
3. Interval Events and Remediation Notes *

   * Recommendations (issue is resolved, further remediation is required, ongoing monitoring, etc.) *