

**NEUROLOGY  
RESIDENCY  
RULES AND PROCEDURES**

**DEPARTMENT OF NEUROLOGY  
AMERICAN UNIVERSITY OF BEIRUT  
2017-2018**

# FOREWORD

This Neurology Residency Rules and Procedures handbook is intended as a handy reference for all Neurology clinical faculty, residents, fellows, and administrative staff. The handbook is divided into five sections as follows:

· **Section I:** Rotations schedule and goals and objectives.

This section contains the overall program objectives of the neurology residency as well as the rotations of the various residents with a specific description of the guidelines and goals and objectives for each rotation.

· **Section II:** Evaluation of resident's performance.

This section details the ACGME criteria for residency evaluation and a description of specific evaluation instruments used to evaluate neurology residents at the American University of Beirut.

· **Section III:** Conferences.

This section includes information and descriptions of several of the neurology conference series.

· **Section IV:** Policies.

This section contains all of the specific policies that involve the department of neurology.

· **Section V:** Suggested references.

This section contains a bibliography and should be used as a guide to reading for neurology residents.

All neurology faculty and residents should be familiar with the goals and objectives, rotation guidelines and policies included in this handbook. A thorough understanding of these goals, guidelines and policies will help insure that our residency program runs smoothly and meets its mission of excellence in patient care, education and research.

# TABLE OF CONTENTS

<b>Section I: Rotation Schedule, Goals and Objectives.....</b>	<b>5</b>
Goals of the Neurology Residency Training Program.....	6
Resident Rotaions. ....	8
Department of Neurology Clinical Faculty .....	9
General Guidelines for the Neurology Inpatient Rotation.....	11
General Guidelines for the Resident Outpatient Clinic Rotation.....	19
General Guidelines for the Resident Coninuity Clinic .....	20
Clinical Neurophysiology Rotations.....	22
EMG Rotation.....	24
Neuroradiology Rotation/Elective .....	26
Child Neurology Rotation.....	27
Neurosurgery Rotation.....	28
Psychiatry Rotation.....	29
Research Requirment .....	30
<b>Section II: Evaluation of Residents Performance .....</b>	<b>31</b>
ACGME Outcome Project .....	32
Neurology Core Competencies .....	33
Patient care.....	33
Medical Knowledge .....	34
Interpersonal communication skills .....	39
Practice based learning and improvement .....	41
Professionalism.....	42
Systems based practice .....	43
Resident Evaluation Instruments .....	45
The Residency Inservice Training Exam (RITE) .....	46
Resident Chart Review .....	48
Neurology Resident Evaluations .....	51
<b>Section III: Conferences .....</b>	<b>58</b>
Formal Didactic Sessions.....	59
<b>Section IV: Systems Based Practice .....</b>	<b>61</b>
Policy on Selection of Residents.....	62
Policy on Resident Supervision .....	63
Policy on Resident Work Hours .....	68
Policy on Evaluation and Promotion of Residents .....	69
Policy on Resident Travel to Scientific Meetings.....	70
Policy on Activities of Pharmaceutical Representatives .....	71
Clinical Competency Committee.....	72
Program Evaluation Committee.....	73
Policy on Resident Vacation and Leaves.....	74
Policy on Moonlighting.....	77

**Section V: Attending Clinic Schedule ..... 82**  
**Section VI: Suggested References.....84**

# **SECTION I**

## **ROTATION SCHEDULE: GOALS AND OBJECTIVES**

# Goals of the Neurology Residency Training Program

## Overall Program Goals

1. To prepare the physician for the independent practice of clinical neurology by providing training based on supervised clinical work with increasing responsibility for outpatient and inpatient care.
2. To provide a foundation of organized instruction in the basic neurosciences.
3. To provide an opportunity to develop and maintain an investigative career in the basic neurosciences and in clinical neurology.
4. To develop the many personal attributes necessary for becoming an effective physician, including honesty, compassion, reliability, and effective communication skills.

## Goals for the PGY2

1. To learn how to obtain an accurate neurologic history and to perform and interpret a neurological examination.
2. To learn the appropriate indications for ordering laboratory studies in neurology: EEG, EMG, nerve conduction studies, evoked potentials, lumbar puncture, CT and MR imaging of the brain and spinal cord.
3. To learn how to evaluate and treat common neurological problems:
  - Neurological Emergencies: Coma and mental status changes, stroke, seizures, neuromuscular respiratory failure, spinal cord compression and cauda equina.
  - Common outpatient neurological problems: Headache, dizziness, back and neck pain, peripheral neuropathies.
4. To learn how to accurately localize a neurological problem, and to formulate an assessment and a management plan.
5. To develop and improve written and oral communication skills.

### **Goals for the PGY3**

1. To learn how to diagnose, evaluate and treat multiple sclerosis, Parkinson's disease and other movement disorders, neuromuscular diseases, dementia, central nervous system infections, and tumors of the nervous system.
2. To perfect the resident's history taking skills and neurologic exam in infants and children.
3. To learn the interrelationship of abnormalities of the nervous system with normal growth and development of the nervous system.
4. To provide the resident with an exposure to and a forum for discussion of a wide variety of neurologic problems in adults and pediatric patients.

### **Goals for the PGY4**

1. To become independent in the evaluation and management of patients presenting with a wide variety of inpatient and outpatient neurological disorders.
2. To gain experience in performing and interpreting EMG's, Nerve Conduction Studies, EEG's and evoked potential testing.
3. To gain experience supervising junior residents on the inpatient neurology services.
4. To improve teaching skills.
5. To emphasize on reviewing and criticizing articles recently published in various neurology subspecialties.

## **Resident Rotations**

The second year Neurology residents (PGY2) will spend most of their time on the neurology inpatient and consult services, to get adequate exposure and experience in the management of neurology inpatients and a variety of neurologic consultations from the ED and the floors. In addition the residents will rotate in neurosurgery, and psychiatry, and will have a few outpatient blocks. In house call will be on average every 4<sup>th</sup> to 6<sup>th</sup> night.

The third year Neurology residents (PGY3) will have 4 blocks on the wards and consult services; they will have 3 blocks of elective including 1 mandatory neuroradiology elective. They will spend two blocks on pediatric neurology, and will have one outpatient block. They will have 2 blocks to learn basics of EEG, EMG In house call will be on average every 4<sup>th</sup> to 6<sup>th</sup> night.

The fourth year Neurology residents (PGY4) will be responsible for overseeing the neurology ward and consult services and the education of more junior residents, students, and rotators from other services. They will spend 2 blocks as ward and cs chief, 1 block on pediatric Neurology, they will have 6 blocks to learn neurophysiology, EMG, EEG, and evoked potentials and they will have 3 blocks of elective and/or outpatient time.



## **Department of Neurology Clinical Faculty**

### **Administration:**

Samir Atweh, MD	Head of The Neurology Department
Johnny Salameh, MD	Program Director
Samer Tabbal, MD	Associate Program Director
Tala Sabbagh Hawasli	Program Coordinator
Samia Khoury, MD	Director of The Abu Haidar Neuroscience Institute

### **General Neurology**

Samir Atweh, MD  
Ahmad Beydoun, MD  
Samia Khoury, MD  
Riad Khalifeh, MD  
Wassim Nasreddine, MD  
Jean Rebeiz, MD  
Raja Sawaya, MD  
Samer Tabbal, MD  
Bassem Yamout, MD  
Achraf Makki, MD  
Johnny Salameh, MD

### **Neuromuscular Disorders**

Raja Sawaya MD  
Bassem Yamout, MD  
Ashraf Makki, MD  
Johnny Salameh, MD

### **Epilepsy & Sleep Disorders**

Ahmad Beydoun, MD  
Wassim Nasreddine, MD

**Movement Disorders**

Samir Atweh, MD

Samer Tabbal, MD

**Neuroimmunology/Multiple Sclerosis**

Samia Khoury, MD

Bassem Yamout, MD

**Neuropathology**

Jean Rebeiz, MD

**Core Competencies:**

**P: Professionalism**

**PC: Patient Care**

**PBLI: Practice Based Learning and Improvement**

**SBP: Systems Based Practice**

**ICS: Interpersonal Skills and Communication**

**MK: Medical Knowledge**

## **General Guidelines for the Neurology Inpatient Rotations**

### **Rotation structure/ Resident Responsibilities**

#### **Ward Service**

##### **Junior Resident (PGY II) on Ward Service**

- 1- Take signout from oncall at 7:30 a.m. **PC/P**
- 2- Gather/document laboratory/imaging data on patients in addition to overnight events (nurse notes, etc). **PC/P**
- 3- Complete neurologic exam on all assigned patients **prior to** Attending Rounds. If needed, begin pre-rounds early (before signout) so that you are finished & prepared on time. **PC/P**
- 4- Read and countersign daily progress notes written by students for all patients. **PC**
- 5- “Run the list” with the senior resident to make a general plan for all assigned patients **PRIOR** to Attending Rounds. **PC/P/MK**
- 6- Present cases at morning report. **MK/ICS/PBLI**
- 7- Help the students/interns in presenting all assigned patients to Attending during Attending Rounds. **PC/MK/P/ICS**
- 8- Document urgent events (i.e. Code Blue events, seizures, important discussions with patients or families) as Addendums in “Progress Note” section of patient charts as Neurology Addendum if not included in the daily progress note. **PC/P**
- 9- Sign all overnight orders written by oncall medical student. *If orders remain unsigned after discharge, the Attending can lose admitting privileges or become suspended, so this is taken very seriously.* **PC/P**
- 10- Order all necessary labs and studies in a timely manner utilizing the appropriate form when needed. **PC/P**
- 11- Order PT/OT and other ancillary services (speech & swallow, etc) in a timely manner for disposition. **PC/MK/SBL**
- 12- Respond to pages in a timely manner and respond appropriately to patient issues (i.e. to witness/treat/document seizures, activate rapid response as needed and run the code until the ICU team arrives, etc). **P/ICS**
- 13- Complete all Admission Orders for admissions and review Admission Checklist to make sure all items are covered. Admission Medication Reconciliation Form is

- a must, and all attempts must be made to obtain accurate medication list upon admission. **PC/MK/P**
- 14- All Neuro ICU admissions with primary neurological disease , but intubated must be discussed with the ICU team, and they must additionally be signed out verbally to the ICU Resident; in addition a neurology follow up note must be written on these patients. **PC/MK/P/ICS**
  - 15- Assign NICU patients, who are not intubated, to interns who will write on them daily progress note. **PC/P**
  - 16- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Senior Resident .Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
  - 17- Prepare detailed Patient Discharge Instructions and update, RN & patient/family on D/C plan. **PC/ICS/SBL**
  - 18- Update the written Signout on for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **PC/MK**
  - 19- Contribute to teaching of students assigned to service. **MK/ICS**
  - 20- Perform and document procedures such as Lumbar Puncture under the supervision of the Senior Resident until Certified. **P/PC**
  - 21- Signout to Oncall resident at 4:30 p.m. then complete work after signout as needed. **P/PC**
  - 22- At the end of the service block, countersign the off-service notes written by students/interns for all patients to allow for safe transition to the new team. **P/PC**

### **Senior Resident (PGY III) on Ward Service**

- 1- Assemble team and take signout from oncall at 7:30am. Ensure that new patients from overnight were assigned to interns , and students. **PC/P/ICS**
- 2- Gather/document laboratory and imaging data on all patients on the service. **PC/P**
- 3- Communicate with nurses, PT/OT and other ancillary staff to assist with disposition for all patients on the service between 9am-10am. **PC/P/ICS**
- 4- Ensure that interns/students have completed daily progress notes and orders, assisting as needed. **PC/P/MK**
- 5- “Run the list” with Junior residents to make a general plan for all patients PRIOR to Attending Rounds. **PC/P/MK**
- 6- Ensure that all H&Ps and Discharges are written, reviewed and signed in a timely manner. **PC/P/MK**
- 7- Respond to pages in a timely manner and respond appropriately to urgent consults & patient issues (i.e. to witness/treat/document seizures, activate rapid response as needed and run the code until the ICU team arrives, etc). **PC/P/MK/ICS**
- 8- Help to expedite Attending Rounds. **P**
- 9- Oversee the educational experience of the Medical Students assigned to the team. This includes reviewing the Neurological Exam and witnessing Students’ exams with opportunity for feedback and questions, discussing localization and

- differential diagnoses, teaching and reviewing documentation and presentation, and also incorporating pertinent systems-based learning. **MK/PBL/ICS**
- 10- Oversee discharges to ensure that discharge summaries and Medication Reconciliations are correct and complete. Assist Junior with communication between the Team and Case Managers/Social Workers/Patients and Families regarding the discharge plan. **PC/MK/P/SBL**
  - 11- Assign cases to be presented in the morning report. **MK/PBL**
  - 12- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Chief Resident (for stroke codes, procedure such as LP, etc.). Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
  - 13- Assist Juniors with updating the written signout for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **MK/PC/PBL/ICS**
  - 14- Supervise procedures such as Lumbar Puncture (if certified), ensuring patient safety, proper ordering of CSF studies with hand-delivery to the lab, and documentation including consent. **PC/SBL**
  - 15- Assemble team and signout to Oncall with entire team at 4:30 p.m. then assist Juniors with completing work as needed. **P/PC/ICS**
  - 16- Oversee and assist with global issues such as disposition, family meetings, ancillary services and monitor medical issues such as blood glucose, blood pressure, PO status/hydration, procedures for ALL patients on the service to ensure appropriate/expeditious discharges and optimal medical care. **SBL/P/PC**
  - 17- At the end of the service block, for Ward team, ensure that students/interns have an Off-service note for all patients to allow for safe transition to the new team. For all teams, give verbal (face to face) signout to the new team and electronic (IPASS). **P/PC/SBL/ICS**
  - 18- At the beginning of each service block for Ward and Consult team, ensure that all patients are assigned to the appropriate Attending with accurate name and pager # of Resident (Senior) and Junior for each patient admitted to the floor. **P/PC/ICS**

### **Senior Resident (PGY IV) on Ward Service**

- 1- Assemble team and take signout from oncall at 7:30am. Ensure that new patients from overnight were assigned to interns, and students. **PC/P/ICS**
- 2- Gather/document laboratory and imaging data on all patients on the service. **PC/P**
- 3- Communicate with nurses, PT/OT and other ancillary staff to assist with disposition for all patients on the service between 9am-10am. **PC/P/ICS**
- 4- Ensure that interns/students have completed daily progress notes and orders, assisting as needed. **PC/P/MK**
- 5- "Run the list" with Junior residents to make a general plan for all patients PRIOR to Attending. **PC/P/MK**
- 6- Ensure that all H&Ps and Discharges are written, reviewed and signed in a timely manner. **PC/P/MK**

- 7- Respond to pages in a timely manner and respond appropriately to urgent consults & patient issues (i.e. to witness/treat/document seizures, activate rapid response as needed and run the code until the ICU team arrives, etc). **PC/P/MK/ICS**
- 8- Help to expedite Attending Rounds. **P**
- 9- Oversee the educational experience of the Medical Students assigned to the team. This includes reviewing the Neurological Exam and witnessing Students' exams with opportunity for feedback and questions, discussing localization and differential diagnoses, teaching and reviewing documentation and presentation, and also incorporating pertinent systems-based learning. **MK/PBLI/ICS**
- 10- Oversee discharges to ensure that discharge summaries and Medication Reconciliations are correct and complete. Assist Junior with communication between the Team and Case Managers/Social Workers/Patients and Families regarding the discharge plan. **PC/MK/P/SBL**
- 11- Assign cases to be presented in the morning report. **MK/PBL**
- 12- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Chief Resident (for stroke codes, procedure such as LP, etc.). Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
- 13- Assist Juniors with updating the written signout for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **MK/PC/PBL/ICS**
- 14- Supervise procedures such as Lumbar Puncture (if certified), ensuring patient safety, proper ordering of CSF studies with hand-delivery to the lab, and documentation including consent. **PC/SBL**
- 15- Assemble team and signout to Oncall with entire team at 4:30 p.m. then assist Juniors with completing work as needed. **P/PC/ICS**
- 16- Oversee and assist with global issues such as disposition, family meetings, ancillary services and monitor medical issues such as blood glucose, blood pressure, PO status/hydration, procedures for ALL patients on the service to ensure appropriate/expeditious discharges and optimal medical care. **SBL/P/PC**
- 17- At the **end** of the service block, for Ward team, ensure that students/interns have an Off-service note for all patients to allow for safe transition to the new team. For all teams, give verbal (face to face) signout to the new team and electronic (IPASS) **P/PC/SBL/ICS**
- 18- At the beginning of each service block for Ward and Consult team, ensure that all patients are assigned to the appropriate Attending with accurate name and pager # of Resident (Senior) and Junior for each patient admitted to the floor. **P/PC/ICS**

## **Consult Service**

### **Junior Resident (PGY II) on Consult Service**

- 1- Take signout from oncall at 7:30 a.m. New patients from overnight will be assigned to Junior residents by the Senior and existing patients will be divided evenly between students. **PC/P**
- 2- Gather/document laboratory/imaging data on patients in addition to overnight events (nurse notes, etc). **PC/P**
- 3- Write a daily neuro follow up note on all assigned patients. **PC/P**
- 4- “Run the list” with the senior to make a general plan for all assigned patients PRIOR to Attending Rounds. **PC/P/MK**
- 5- Present all assigned patients to Attending during Attending Rounds. **P/ICS/MK**
- 6- Respond to pages in a timely manner and respond appropriately to patient issues. **P/ICS/PC**
- 7- ER and urgent floor consults are seen by the Junior resident .Floor consults are assigned by the senior resident. **PC**
- 8- On call pager 1550 is carried by the Junior. **PC/P**
- 9- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Senior Resident .Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
- 10- Update the written Signout on for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **PC/MK**
- 11- Contribute to teaching of students assigned to service.**MK/ICS**
- 12- Perform and document procedures such as Lumbar Puncture under the supervision of the Senior Resident until Certified. **P/PC**
- 13- Signout to Oncall resident at 4:30 p.m. then complete work after signout as needed. **P/PC**
- 14- At the end of the service block, write an off-service note for all patients to allow for safe transition to the new team. **P/PC**

### **Senior Resident (PGY III) on Consult Service**

- 1- Assemble team and take signout from oncall at 7:30am. Make sure that new patients from overnight were assigned to junior resident interns , and students. **PC/P**
- 2- Gather/document laboratory and imaging data on all patients on the service. **PC/P**
- 3- “Run the list” with the team to make a general plan for all patients PRIOR to Attending. **PC/P/MK**
- 4- Respond to pages in a timely manner and respond appropriately to urgent consults & patient issues. **P/PC/ICS/MK**
- 5- Help to expedite Attending Rounds. **P**
- 6- Oversee the educational experience of the Junior resident and Medical Students assigned to the team. This includes reviewing the Neurological Exam and witnessing Neuro exams with opportunity for feedback and questions, discussing localization and differential diagnoses, teaching and

reviewing documentation and presentation, and also incorporating pertinent systems-based learning. **PC/MK/P/SBL**

- 7- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Chief Resident (for stroke codes, procedure such as LP, etc.). Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
- 8- Assist Juniors with updating the written signout for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **MK/PC/PBL/ICS**
- 9- Supervise procedures such as Lumbar Puncture (if certified), ensuring patient safety, proper ordering of CSF studies with hand-delivery to the lab, and documentation including consent. **PC/SBL**

### **Senior Resident (PGY IV) on Consult Service**

- 1- Assemble team and take signout from oncall at 7:30am. Make sure that new patients from overnight were assigned to junior resident interns, and students. **PC/P**
- 2- Gather/document laboratory and imaging data on all patients on the service. **PC/P**
- 3- “Run the list” with the team to make a general plan for all patients PRIOR to Attending. **PC/P/MK**
- 4- Respond to pages in a timely manner and respond appropriately to urgent consults & patient issues. **P/PC/ICS/MK**
- 5- Help to expedite Attending Rounds. **P**
- 6- Oversee the educational experience of the Junior resident and Medical Students assigned to the team. This includes reviewing the Neurological Exam and witnessing Neuro exams with opportunity for feedback and questions, discussing localization and differential diagnoses, teaching and reviewing documentation and presentation, and also incorporating pertinent systems-based learning. **PC/MK/P/SBL**
- 7- Attend Morning Report Sessions, Grand Rounds, and Noon Lectures unless excused by a Chief Resident (for stroke codes, procedure such as LP, etc.). Attendance at all educational sessions is mandatory and will be tracked. Attending Epilepsy journal club is highly encouraged. **MK/P**
- 8- Assist Juniors with updating the written signout for all new and existing patients including succinct summary of presentation, NIHSS if applicable, past medical history, diagnostic data and plan. **MK/PC/PBL/ICS**
- 9- Supervise procedures such as Lumbar Puncture (if certified), ensuring patient safety, proper ordering of CSF studies with hand-delivery to the lab, and documentation including consent. **PC/SBL**



## **Evening and weekend coverage**

- 1- The chief neurology resident is expected to write the call schedule for evening and weekend coverage. When the second year neurology resident is on call during the first month of the year, he/she will be supervised by a senior resident on call. A back-up coverage is to be provided by a third year Neurology resident throughout the year.
- 2- The neurology resident is expected to promptly respond to emergency room or inpatients consultations. Following evaluation of the patient, the neurology resident is required to call the neurology attending assigned to the consults for staffing of the case.
- 3- The “on call” neurology resident is responsible for emergency room neurological admissions and consultations as well as neurological consultations from the floors and units. Since they may be called concerning problems with patients already being followed on the neurology or consult services, it is essential that the “on call” neurology resident to be fully familiar with the patients being followed by the neurology service. This is best accomplished through the daily sign-out rounds.
- 4- Patients evaluated by the neurology resident in the emergency department and that do not require admission might be discharged from the emergency room after the case has been staffed with the attending neurologist.

## **Attendings**

- . There will be one attending assigned to the consult service and another to the ward neurology service at all times.
- . The Neurology attendings are ultimately responsible for all decisions regarding the care of the patients.
- . The Neurology attending assigned to the ward neurology service is responsible for making daily rounds on patients admitted to the neurology inpatient team. She/he should co-sign the house staff admission and follow-up notes and add addendum as needed.

-She/he is expected to provide daily teaching, feedback and a final evaluation for each resident whom he/she supervises.

. The Neurology attending assigned to the consult neurology service is responsible for staffing all consults from the ER and the floors. He/she is responsible for deciding whether ED patients should be admitted to the neurology ward service or discharged with outpatient elective follow-up. She/he is expected to provide daily teaching, feedback and a final evaluation for each resident whom he/she supervises.

## **General Guidelines for the Resident Outpatient Clinic Rotation**

The resident outpatient clinic rotation aims at increasing the residents' exposure to outpatient management of neurologic patients. The residents rotate in each clinic block for 2-4 weeks at a time.

The clinic blocks are general neurology, epilepsy, neuromuscular, movement disorders, and multiple sclerosis. Each clinic session is a half-day session. (Please see attached Attending Clinic Schedule.)

The role of the resident depends on each attending and should be clarified with them. Some may want the resident to shadow them in the clinic, while others would want the resident to see the patient independently and then staff with the attending. The resident should actively participate in the evaluation and management of each case. He/she should try to keep track and follow up on the outcome of these cases for learning purposes.

# **General Guidelines for the Resident Continuity Clinic**

## **Overview of Outpatient Services**

The AUBMC Neurology Clinic offers an opportunity for residents to complete their outpatient ACGME requirements. Attending coverage (precepting) is offered by various attendings. Residents rotate through the Neurology Clinic as follows:

- 1- Continuity Clinic in the afternoon **twice weekly** (Tuesdays and Thursdays from 1:00 till 4:30) for ALL residents throughout the residency. Residents are divided into 2 groups. The first group covers the continuity clinic on Tuesday, and the second group covers the clinic on Thursday.
- 2- Each afternoon in continuity clinic consists of a maximum of 4 scheduled appointments per resident (2 new and 2 follow-ups). To meet ACGME requirements, residents cannot miss more than 5 continuity clinic days, whether due to away elective or patient no-shows, otherwise residents must make up 1 day (afternoon of continuity clinic) during elective time.

## **Outpatient Duties**

### **Clinic Resident and Continuity Clinic Resident**

1. See scheduled patients in a timely manner, including gathering data, taking history, examination, and formulation of assessment/plan. Patients are “staffed” with the assigned Attending in the clinic Conference Room and the visit is completed after the Attending sees the patient with the Resident and all orders are completed for the visit.
2. Documentation in the clinic charts consists of a detailed clinic note that includes history of present illness, past medical, past surgical, family and social histories, in addition to a complete neurologic examination, assessment and plan. These notes are written and must be completed on the same day and countersigned by the attending who saw the patient.
3. All residents are responsible for monitoring their own Continuity schedules and communicating any errors to their program coordinator and outpatient clinic administrator, i.e. patients scheduled during their vacation time.

## **Outpatient Administration**

- 1) Patient appointment scheduling
  - Two secretaries are responsible for the appointment scheduling. They schedule patients for each resident and make sure that the same resident who first saw the patient during his/her initial visit, follows-up with him/her on later visits.

# **Clinical Neurophysiology Rotations**

## **EEG Rotation**

### **Rotation structure/ Resident Responsibilities**

#### **PGY III responsibilities:**

- 1- Be familiar with the EEG machine
  - Learn controls
  - Learn electrode placement system on mannequins
  - Place electrodes on a human with the EEG technician
  
- 2- Attend from start to finish at least one
  - Outpatient EEG (adult and child)
  - Demonstrate reactivity of occipital rhythm, mu rhythm, lambda waves, and stimulus evoked K complexes.
  - Portable EEG (Coma, r/o status epilepticus, ECI)
  - Neonatal EEG
  - Evoked potential study
  
- 3- Learn basics of EEG and evoked potentials reading; study daily EEGs and evoked potentials with attendings and epilepsy fellows.
  
- 4- Attend epilepsy journal clubs at 8:30 am, 3 days a week.
  
- 5- Log at least 25 EEG cases per block.

#### **PGY IV responsibilities:**

- 1- Attend at least one intraoperative EEG monitoring.
  
- 2- Daily review of LTM with the epilepsy fellow and the attending.
  
- 3- Directed review of polysomnographic studies, progressing to sleep scoring and interpretation as deemed appropriate by the clinic faculty Dr. Wassim Nasreddine.

- 4- Attend epilepsy journal clubs at 8:30 am, 3 days a week.
- 5- Log at least 25 EEG cases per block.
- 6- Actively participate in the management of refractory epilepsy patients undergoing epilepsy surgery work up.

## **EMG Rotation**

### **Rotation structure/ Resident Responsibilities**

#### **PGY III responsibilities:**

- 1- Be familiar with nerve conduction machine, learn controls, and learn electrode placement system.  
Place electrodes on a human with the EMG machine.
- 2- Attend from start to finish at least ten outpatient EMGs (Adult and child) and Inpatient EMGs including ICU patients.
- 3- Learn basics of EMG and Evoked Potentials reading; study daily EMGs and Evoked Potentials with the neuromuscular fellow and Attending.
- 4- Residents are required to log at least 8 EMGs per block.
- 5- Residents are required to learn surface anatomy for nerves and muscles of the upper and lower extremities.
- 6- Learn to perform upper extremity (median, ulnar) and lower extremity (peroneal tibial) nerve conduction studies.
- 7- Begin needle examination with supervision.

#### **PGY IV responsibilities:**

- 1- Attend at least one intraoperative electrophysiology recording during complex spine surgery per block.
- 2- Be familiar with evoked potentials.
  - Residents are required to perform and evaluate at least one VEP, one BAER, one SSEP per block under the supervision of the attending.



- 3- Residents are required to perform a full nerve conduction with needle examination study.
- 4- Residents are required to read about various neuromuscular diseases and their corresponding diagnostic criteria (Preston and Shapiro)
- 5- Residents are required to log at least 8 EMG's per block.

# **Neuroradiology Rotation/Elective**

## **Rotation structure/ Resident Responsibilities**

### **PGY II responsibilities:**

1. Attend and actively participate in the morning readout sessions with the radiology resident.
2. Attend and actively participate in the afternoon readout sessions with the neuroradiology attending.
3. Attend neuroradiology conferences.

### **PGY III responsibilities:**

1. Attend and actively participate in the morning readout sessions with the radiology resident.
2. Attend and actively participate in the afternoon readout sessions with the neuroradiology attending.
3. Attend neuroradiology conferences.
4. Observe invasive procedures including myelography, diagnostic and interventional angiography, and lumbar puncture under fluoroscopy.

# **Child Neurology Rotation**

## **Rotation structure/ Resident Responsibilities**

### **PGY III responsibility:**

- 1- Be involved in the evaluation and management of all inpatient admissions and pediatric neurology consultations.
- 2- Attend the daily outpatient clinic.
- 3- Attend Friday morning pediatric neurology conference, held each week at 9:15 am in the Pediatric Library Room.
- 4- Read required readings (Swaiman's Pediatric Neurology)

### **PGY IV responsibilities:**

- 1- Be involved in the evaluation and management of all inpatient admissions and pediatric neurology consultations
- 2- The neurology resident is expected to actively work in the outpatient clinics.
- 3- Attend Friday morning pediatric neurology conference, held each week at 9:15 am in the Pediatric Library Room.
- 4- Read required readings (Swaiman's Pediatric Neurology)
- 5- The neurology resident is expected to perform at least 1 pediatric neurology NEX during the rotation.

# **Neurosurgery Rotation**

## **Rotation Structure/Resident Responsibilities**

### **PGY II responsibilities:**

The neurology resident will rotate in the neurosurgery department for 4 weeks during their PGY2 year. The rotation will include both ward service and ICU exposure as well as consults and operating room exposure. In the morning, the resident will attend the neurosurgery rounds at 7:00am in addition to didactic sessions after every round. The resident should actively attend with the neurosurgery resident the floor and ER consultations to get more exposure. In addition, the residents are required to attend surgeries and procedures such as VP shunt placement, neurovascular procedures, intra-arterial tpa, tumor resection, DBS, and epilepsy surgery. They are also required to attend outpatient clinics.

Every resident should present at least one lecture during their rotation.

# **Psychiatry Rotation**

## **Rotation Structure/Resident Responsibilities**

### **PGY II responsibilities:**

The neurology resident will rotate in psychiatry for 4 weeks during their PGY 2 year. The rotation will include both outpatient and inpatient exposure.

In the morning, the resident will attend the psychiatry inpatient rounds and the didactic sessions after the rounds. The resident is required to actively attend with the psychiatry resident the floor and ER consultations. The resident is also required to attend outpatient psychiatry clinic and to be actively involved in patients' evaluation and management.

## Research Requirement

The Department of Neurology has a strong tradition of both basic and clinical research. Many internationally recognized clinician researchers are members of the faculty. The philosophy of the Department of Neurology is that research should be part of each fellow's educational experience. Accordingly, residents are required to participate in a clinical or basic research project during their residency, culminating in a formal divisional presentation. Abstract submission to the American Academy of Neurology, the American Neurological Association, or a subspecialty meeting is also highly encouraged.

Each resident will choose a faculty mentor to support this project. In addition to overseeing the specific project, the mentor will instruct the resident in more general issues of study design, funding, implementation, and reporting relevant to the research project.

Examples of research projects include the following:

- Basic and translational science
- Clinical research
- Outcomes and health care utilization research
- Education research
- Clinical case presentation with review of the literature

Each resident can use up to a total of two blocks of elective time for research during their residency. Research may be conducted during a block rotation or longitudinally.

A suggested timeframe for this research experience is as follows:

- First year:            Identify a faculty mentor and meet to discuss possible projects  
                             Inform the Program Director of your project and mentor
- Second year:        Begin research project during an elective block or longitudinally
- Third year:           Complete research project  
                             Submit an abstract to a national meeting  
                             Prepare a Grand Rounds presentation based on the research

## **SECTION II**

# **EVALUATION OF RESIDENTS PERFORMANCE**

## **ACGME Outcome Project**

At its February 1999 meeting, the ACGME endorsed general competencies for residents in the areas of:

- Patient care
- Medical knowledge
- Practice based learning and improvement
- Interpersonal and communication skills
- Professionalism
- Systems based practice

Identification of general competencies is the first step in a long-term effort designed to emphasize educational outcome assessment in fellowship programs and in the accreditation process. The following Neurology Core Competencies were developed and endorsed by the Graduate Education Subcommittee of the AAN, and represent what each graduate of the adult neurology residency training program at the American University of Beirut is expected to learn by the end of his/her residency. All evaluation instruments will be keyed to the following core competencies:



# Neurology Core Competencies

## I. Patient Care

A. The physician shall demonstrate the following abilities:

1. To perform and document a comprehensive history and examination to include as appropriate:

- a. Chief complaint
- b. History of present illness
- c. Past medical history
- d. Review of systems
- e. Family history
- f. Social history
- g. Developmental history (especially for children)

2. To create differential diagnoses

3. To evaluate, assess, and recommend cost-effective management of patients

B. Based on a comprehensive neurological assessment, the physician shall demonstrate the following abilities:

1. To determine:

- a. If a patient's symptoms are the result of a disease affecting the central or peripheral nervous system or are of another origin
- b. A formulation, differential diagnosis, laboratory investigation, and management plan

2. To develop and maintain the technical skills to:

- a. Perform lumbar puncture and caloric testing
- b. Identify and describe abnormalities seen in common neurological disorders on radiographic testing, including plain films, myelography, angiography, CT, isotope, MRI, and PET/SPECT imaging of the neuraxis.
- c. Evaluate the application and relevance of investigative procedures and interpretation in the diagnosis of neurologic disease, including the following:
  - 1) Electroencephalogram
  - 2) Motor and sensory nerve conduction studies

- 3) Electromyography
- 4) Evoked potentials
- 5) Polysomnography
- 6) Electronystagmogram
- 7) Audiometry
- 8) Perimetry
- 9) Psychometry
- 10) CSF analysis
- 11) Vascular imaging (Duplex, transcranial Doppler)
- 12) Radiographic studies as outlined above

d. Identify and describe gross and microscope specimens taken from the normal nervous system and from patients with major neurologic disorders.

3. To recognize and treat neurological disorders.

## **II. Medical Knowledge**

A. The physician shall demonstrate the following:

1. Knowledge of major disorders, including:
  - a. The epidemiology of the disorder
  - b. The etiology of the disorder, including medical, genetic, and social factors
  - c. The phenomenology of the disorder
  - d. Diagnostic criteria
  - e. Effective treatment strategies
  - f. Course and prognosis
2. Knowledge of administrative medicine and health care delivery systems
3. Knowledge of ethics
4. Ability to reference and utilize electronic information systems to access medical, scientific, and patient information

B. The physician shall demonstrate knowledge of the following:

1. Basic neuroscience that would be critical to the practice of neurology

2. Pathophysiology of major psychiatric and neurological disorders and familiarity with the scientific basis of neurological diseases, including:

a. *Neuroanatomy*

- 1) Cerebral cortex
- 2) Connecting systems
- 3) Basal ganglia/thalamus
- 4) Brainstem
- 5) Cerebellum
- 6) Cranial nerves
- 7) Spinal cord
- 8) Spinal roots/peripheral nerves
- 9) Ventricular system/CSF pathways
- 10) Vascular
- 11) Neuromuscular junction/muscles
- 12) Autonomic nervous system
- 13) Embryology
- 14) Pain pathways
- 15) Radiologic anatomy/cerebral blood vessels (angio or MRA)

b. *Neuropathology*

- 1) Basic patterns of reaction
- 2) Cerebrovascular disease
- 3) Trauma (cranial and spinal)
- 4) Metabolic/toxic/nutritional diseases
- 5) Infections
- 6) Demyelinating diseases/leukodystrophies
- 7) Neoplasms
- 8) Congenital/developmental disorders
- 9) Degenerative/heredodegenerative disorders
- 10) Myopathies
- 11) Peripheral nerve disorders
- 12) Radiologic pathology pertinent to assigned pathology sections

c. *Neurochemistry*

- 1) Carbohydrate metabolism
- 2) Lipid metabolism

- 3) Protein metabolism
- 4) Neurotransmitters
- 5) Axonal transport
- 6) Energy metabolism
- 7) Bloodbrain barrier
- 8) Biochemistry of membranes/receptors/ion channels
- 9) Neuronal excitation
- 10) Vitamins (general aspects)
- 11) Inborn errors of metabolism
- 12) Electrolytes and minerals
- 13) Neurotoxins
- 14) Free radical scavengers
- 15) Excitotoxicity

*d. Neurophysiology*

- 1) Basic
  - a) Membrane physiology
  - b) Synaptic transmission
  - c) Sensory receptors and perception
  - d) Special senses
  - e) Reflexes
  - f) Segmental and suprasegmental control of movement
  - g) Cerebellar function
  - h) Reticular system/mechanisms of sleep and arousal/consciousness/circadian rhythms
  - i) Rhinencephalon/limbic system/the visceral brain
  - j) Learning and memory
  - k) Cortical organizations and function
  - l) Pathophysiology of epilepsy
  - m) Cerebral blood flow
  - n) Autonomic function
  - o) Bloodbrain barrier
  
- 2) Clinical
  - a) EEG
  - b) Evoked responses
  - c) EMG/nerve conduction studies
  - d) Sleep studies

*e. Neuropharmacology*

- 1) Anticonvulsants
- 2) Antibiotics/antimicrobials/vaccines
- 3) Antioxidants
- 4) Neuromuscular agents
- 5) Antidyskinesia drugs (including antiparkinsonians)
- 6) Vitamins (clinical aspects)
- 7) Analgesics (nonnarcotics, narcotics, and other centrally active agents)
- 8) Anticoagulants/antiplatelets/thrombolytic agents
- 9) Hormones
- 10) Autonomic agents
- 11) Anticholinesterase drugs
- 12) Neurologic side effects of systemic drugs
- 13) Miscellaneous drugs

*f. Neuroimmunology/neurovirology*

- 1) Molecular pathogenesis of multiple sclerosis
- 2) Molecular neurology of prion diseases and slow viruses
- 3) Immunology in MS/MG/other neurologic disorders

*g. Neurogenetics/molecular neurology and neuroepidemiology*

- 1) Mendelian inherited diseases
- 2) Mitochondrial disorders
- 3) Trinucleotide repeats disorders
- 4) Channelopathies
- 5) Genetics of epilepsy
- 6) Molecular genetics of brain tumors
- 7) Other genetic disorders/mechanisms
- 8) Ischemic penumbra
- 9) Molecular approaches to stroke therapy
- 10) Polymerase chain reaction
- 11) Risk factors in neurologic disease
- 12) Demographics of neurologic disease

*h. Neuroendocrinology*

*i. Neuroimaging*

- 1) Plain skull/spine radiology
- 2) MRI MRV/MRA

- 3) CT scan
- 4) CT myelography
- 5) Angiography
- 6) SPECT/PET

*j. Neuroophthalmology*

- 1) Vision and visual pathways
- 2) Visual fields
- 3) Pupils
- 4) Ocular motility
- 5) Fundi/retina/optic nerve

*k. Neurootology*

- 1) Hearing/auditory function and testing
- 2) Vertigo/vestibular function and testing

*l. Cerebrospinal fluid*

- 1) Normal CSF constituents and volume
- 2) Pathologic CSF patterns
  - a) Cellular
  - b) Chemical
  - c) Enzymatic
  - d) Serologic

*m. Critical care and emergency neurology*

*n. Geriatric neurology*

*o. Headache and facial pain*

*p. Interventional neurology*

*q. Movement disorders*

*r. Neurological rehabilitation*

3. Patient evaluation and treatment selection, including:

- a. The nature of patients' physical findings and the ability to correlate the findings with a likely localization for neurologic dysfunction
- b. Likely diagnoses and differential diagnoses
  - 1) In Adults
  - 2) In Children
- c. Planning for evaluation and management
- d. Potential risk and benefits of potential therapies, including surgical procedures

### **III. Interpersonal Communication Skills**

A. The physician shall demonstrate the following abilities:

- 1. To listen to and understand patients
- 2. To communicate effectively with patients, using verbal, nonverbal, and writing skills as appropriate
- 3. To develop and maintain a therapeutic alliance with patients by instilling feelings of trust, openness, rapport, and comfort in the relationship with the physician
- 4. To use negotiation to develop an agreed upon health care management plan with patients
- 5. To transmit information to patients in a clear, meaningful fashion
- 6. To understand the impact of the physician's own feelings and behavior on treatment
- 7. To communicate effectively and work collaboratively with allied health care professionals and with other professionals involved in the lives of patients
- 8. To educate patients, professionals, and the public about medical, psychological, and behavioral issues
- 9. To work effectively within multidisciplinary team structures as member, consultant, or leader

B. The physician shall demonstrate the ability to elicit important diagnostic data and data affecting treatment from individuals from the full spectrum of ethnic, racial, gender, and educational backgrounds. This will include skills in tolerating and managing high levels of affect in patients.

C. The physician shall demonstrate the ability to obtain, interpret, and evaluate consultations from other medical specialties. This shall include:

- 1. Formulating and clearly communicating the consultation question
- 2. Discussing the consultation findings with the consultant

3. Evaluating the consultation findings

D. The physician shall serve as an effective consultant to other medical specialists, mental health professionals, and community agencies. The physician shall demonstrate the abilities to:

1. Communicate effectively with the requesting party to refine the consultation question
2. Maintain the role of consultant
3. Communicate clear and specific recommendations
4. Respect the knowledge and expertise of the requesting party

E. The physician shall demonstrate the ability to communicate effectively with patients and their families by:

1. Gearing all communication to the educational/intellectual levels of patients and their families
2. Demonstrating cultural sensitivity to patients and their families
3. Providing explanations of neurological disorders and treatment (both verbally and in written form) that are jargon free and geared to the educational/intellectual level of patients and their families
4. Providing preventive education that is understandable and practical
5. Respecting the patients' cultural, ethnic, and economic backgrounds
6. Developing and enhancing rapport and a working alliance with patients

F. The physician shall maintain medical records that are legible and up-to-date. These records must capture essential information while simultaneously respecting patient privacy and be useful to health professionals outside neurology.

G. The physician shall demonstrate the ability to effectively lead a multidisciplinary treatment team, including being able to:

1. Listen effectively
2. Elicit needed information from team members
3. Integrate information from different disciplines
4. Manage conflict
5. Clearly communicate an integrated treatment plan

H. The physician shall demonstrate the ability to communicate effectively with patients and their families while respecting confidentiality. Such communication may include:

1. The results of the assessment
2. Use of informed consent when ordering investigative procedures



3. Genetic counseling and palliative care when appropriate
4. Consideration and compassion for the patient in providing accurate medical information and prognosis
5. The risks and benefits of the proposed treatment plan, including possible side effects of medications and/or treatments
6. Alternatives (if any) to the proposed treatment plan
7. Education concerning the disorder, its prognosis, and prevention strategies

#### **IV. Practice Based Learning and Improvement**

A. The physician shall recognize and accept limitations in his/her own knowledge base and clinical skills, and understand the need for lifelong learning.

B. The physician shall demonstrate appropriate skills for obtaining up-to-date information from the scientific and practice literature and other sources to assist in the quality care of patients. This shall include, but not be limited to:

1. Use of medical libraries
2. Use of information technology, including Internet based searches and literature databases (e.g., Medline)
3. Use of drug information databases
4. Active participation, as appropriate, in educational courses, conferences, and other organized educational activities both at the local and national levels

C. The physician shall evaluate caseload and practice experience in a systematic manner. This may include:

1. Case based learning
2. Use of best practices through practice guidelines or clinical pathways
3. The review of patient records and outcomes
4. Obtaining evaluations from patients (e.g., outcomes and patient satisfaction)
5. Obtaining appropriate supervision
6. Maintaining a system for examining errors in practice and initiating improvements to eliminate or reduce errors

D. The physician shall demonstrate an ability to critically evaluate the relevant medical literature. This ability may include:

1. Using knowledge of common methodologies employed in neurological research

2. Conducting and presenting reviews of current research in such formats as journal clubs, grand rounds, and/or original publications
  3. Researching and summarizing a particular problem that derives from the physician's caseload.
- E. The physician shall demonstrate the ability:
1. To review and critically assess the scientific literature to determine how quality of care can be improved in relation to one's practice (e.g., reliable and valid assessment techniques, treatment approaches with established effectiveness, practice parameter adherence). Within this aim, the physician shall be able to assess the generalizability or applicability of research findings to one's patients in relation to their sociodemographic and clinical characteristics.
  2. To develop and pursue effective remediation strategies that are based on critical review of the scientific literature.

## **V. Professionalism**

- A. The physician shall demonstrate responsibility for his/her patients' care, including:
1. Responding to patient communication
  2. Using medical records for appropriate documentation of the course of illness and its treatment
  3. Providing coverage if unavailable, e.g., out of town, on vacation
  4. Coordinating care with other members of the medical and/or multidisciplinary team
  5. Providing for appropriate transfer or referral if necessary
- B. The physician shall respond to communications from patients and health professionals in a timely manner. If unavailable, the physician shall establish and communicate backup arrangements. The physician shall communicate clearly to patients about how to seek emergent and urgent care when necessary.
- C. The physician shall demonstrate ethical behavior and personal and professional attitudes of integrity, honesty, and compassion in the delivery of principal or consultative patient care.
- D. The physician shall demonstrate respect for patients and colleagues as persons, including their ages, cultures, disabilities, ethnicities, genders, socioeconomic backgrounds, religious beliefs, political leanings, and sexual orientations.

E. The physician shall demonstrate a commitment to excellence in clinical practice through the establishment of lifelong learning habits and continuing medical education, including:

1. Regularly reviewing his/her own skills and knowledge
2. Realizing limitations and developing strategies for overcoming them
3. Responding positively to others' evaluations of professional performance

F. The physician shall ensure continuity of care for patients and, when it is appropriate to terminate care, does so appropriately.

G. The physician shall demonstrate appreciation of end of life care and issues regarding provision or withholding of care.

## **VI. Systems Based Practice**

A. The physician shall be able to articulate the basic concepts of systems theory and how it is used in neurology. The physician should have a working knowledge of the diverse systems involved in treating patients of all ages, and understand how to use the systems as part of a comprehensive system of care, in general, and as part of a comprehensive, individualized treatment plan. This will include the:

1. Development of awareness of practice guidelines, community, national and allied health professional resources that may enhance the quality of life of patients with chronic neurological illnesses
2. Development of the ability to lead and delegate authority to health care teams needed to provide comprehensive care for patients with neurological disease
3. Development of skills for the practice of ambulatory medicine, including time management, clinic scheduling, and efficient communication with referring physicians
4. Utilization of appropriate consultation and referral for the optimal clinical management of patients with complicated medical illness
5. Demonstration of awareness of the importance of adequate crosscoverage and availability of accurate medical data in the communication with and efficient management of patients

B. In the community system, the physician shall:

1. Recognize the limitation of resources for health care and demonstrate the ability to act as an advocate for patients within their social and financial constraints
2. Demonstrate knowledge of the resources available both publicly and privately for the treatment of neurological problems impacting a patient's ability to enjoy relationships and gain employment
3. Demonstrate knowledge of legal aspects of neurological diseases as they impact patients and their families

C. The physician shall demonstrate knowledge of and interact with managed health systems, including:

1. Participating in utilization review communications and, when appropriate, advocating for quality patient care
2. Educating patients concerning such systems of care

D. The physician shall demonstrate knowledge of community systems of care and assist patients to access appropriate care and other support services. This requires knowledge of treatment settings in the community, which include ambulatory, consulting, acute care, partial hospital, skilled care, rehabilitation, and substance abuse facilities; halfway houses; nursing homes; and home care and hospice organizations. The physician should demonstrate knowledge of the organization of care in each relevant delivery setting and the ability to integrate the care of patients across such settings.

## **Resident Evaluation Instruments**

Valid evaluation systems must employ several different instruments, since no single evaluation instrument can assess each of the six ACGME Core Competencies. The following evaluation instruments will be used to evaluate neurology residents' mastery of the Core Competencies:

- RITE (Residency In-service Training Examination)
- NEX
- Chart Review
- Attending Global Assessment
- 360 degree evaluation
- Conference Attendance
- Procedure Log

Each of these evaluation instruments is described below. In addition, three tables delineate where the six core competencies are taught during the residency program, and how they will be evaluated.

# **The Residency Inservice Training Exam (RITE)**

## **Objective**

The American Academy Neurology (AAN) Residency Inservice Training Exam (RITE) is a self-assessment tool designed to gauge knowledge of neurology and neuroscience, identify areas for potential growth, and provide references and discussions for each.

## **Examination Features**

· A carefully weighted, in-depth examination featuring questions in each of the following areas of neurology and neuroscience:

- o Anatomy
- o Behavior
- o Clinical adult
- o Clinical pediatric
- o Imaging
- o Pathology
- o Pharmacology/chemistry
- o Physiology

· Graphics that include:

- o Up-to-date radiographs
- o CT scans
- o MR images
- o Full color pathologic representations

· A review by a committee of recognized experts to ensure content clarity, question relevance, and topical balance.

· An item discussion and reference booklet identifying correct answers, specific references, and question discussions.

## **Test Dates**

The examination is typically scheduled at the end of February and is given in two sessions during the same day. Each session is about three and a half hours.

**Scores**

- Each examinee receives an individual report of his/her scores including percent correct, percentile rankings compared to entire examinee population, and percentile rankings compared to others in the same level of training.
- Each program director receives a composite of the individuals' scores in his/her program as well as a summary report with averages for the entire population of examinees.
- Scores are released approximately eight weeks after the examination

## **Chart Review**

Chart review provides evidence about clinical decision making, follows thoroughly inpatient management and preventive health services, and appropriate use of clinical facilities and resources (e.g., appropriate laboratory tests and consultations). It is done on weekly basis by the Program Director, Resident on the ward service and Program Coordinator who review all charts. Constructive criticism is provided to improve patient documentation.

In addition, Chart Reviews at the Medical Records Department are conducted once per month by the Program Director, Chief Resident and Program Coordinator who randomly choose around 8 – 10 charts and assess proper documentation (Admission notes, Progress notes, Patient education, Medication reconciliation), Management and the proper use of facilities and resources.

The evaluation form is as follows:



Patient initials:	Patient Medical Record:	Date:
Attending:	Chief resident	Resident 1:
Resident 2:	Resident 3:	Intern:

	<b>Item</b>	<b>Deficiencies and Comments</b> <i>(N/A if Not Applicable)</i>
	<b>ATTENDING</b>	
1	Attending admission note within 24 hours	
2	Attending progress note every third day or counter signature of the resident note	
3	Multidisciplinary conference documentation every 7 days	
4	Completeness of consultation note	
5	Plan of care documented and updated regularly (with measurable goals)	
6	Documentation of patient and family education and signing of the form upon discharge	
7	Every order is stamped and signed with the name of the doctor with date & time	
8	Date , time, signature on every note	
9	Legible handwriting	
10	No overwriting/ Errors have initials and date	
11	Documents are identified by Patient name and case number	
	<b>RESIDENT</b>	
12	The Admission note was completed within 24 hours	
13	All elements in physician orders were complete (errorization, abbreviations in medication names, PRN reason and prioritization is needed...)	
14	Patient education was documented either in the Multidisciplinary sheet or in the Progress Notes	
15	The patient education documentation (in the Multidisciplinary Sheet or the Progress Notes) indicated what the patient was educated on	
16	PAML was complete	
17	Daily progress note was complete	
18	The Problem List was updated whenever a new condition was diagnosed	
19	All the elements (including assessment of education and discharge planning) in the Admission Note were complete	
20	The medical student notes were countersigned	
21	The Patient Education Form was completed before discharge	
22	The consultation Form was completely filled including purpose of consultation	

23	The collaborative care plan documentation notes specified in a statement the nurse and other disciplines discussed with i.e. included a statement <b><u>“plan has been discussed with X...”</u></b>	
24	If the patient remained at AUBMC for more than 7 days, a multidisciplinary conference was arranged to review the patient plan with all healthcare providers involved in the patient's care and was led by attending physicians	
25	The plan of care had measurable goals that included outcome parameters for the treatment given to the patient (e.g.: Diuresis patient until negative 1liter in 24hrs and give furosemide 40 mg IV tid).	
26	Medication reconciliation signed by the resident	
27	Every order is stamped and signed with the name of the doctor with date & time	
28	Date , time, signature on every note	
29	Legible handwriting	
30	No overwriting/ Errors have initials and date	
31	Documents are identified by Patient name and case number	

## **Attending Global Assessment**

Global rating forms are distinguished from other rating forms in that (a) a rater judges general categories of ability (e.g. patient care skills, medical knowledge, interpersonal and communication skills) instead of specific skills, tasks or behaviors; and (b) the ratings are completed retrospectively based on general impressions collected over a period of time (e.g., end of a clinical rotation) derived from multiple sources of information (e.g., direct observations or interactions; input from other faculty, fellows, or patients; review of work products or written materials).

All rating forms contain scales that the evaluator uses to judge knowledge, skills, and behaviors listed on the form. Typical rating scales consist of qualitative indicators and often include numeric values for each indicator, for example, (a) very good = 1, good =2, fair = 3, poor =4; or (b) superior =1, satisfactory =2, unsatisfactory =3. Written comments are important to allow evaluators to explain the ratings.

Global rating forms are most often used for making end of rotation and summary assessments about performance observed over days or weeks. Scoring rating forms entails combining numeric ratings with comments to obtain a useful judgment about performance based upon more than one rater.

A new Global Rating Form has been constructed for neurology residents, and must be completed by each attending at the end of his one month rotation with the fellows.

The Division Head reviews the Global Rating Forms with each fellow during his/her semiannual evaluation meeting.

## Evaluation of Resident by Attending

Resident's Name

Rotation Name

Attending's Name

Rotation Period

Evaluation Date

### 1. Patient Care

Incomplete, inaccurate medical interviews, neurological examinations, and review of other data; incompetent performance of essential procedures; fails to analyze clinical data and consider patient preferences when making medical decisions

Superb, accurate, comprehensive medical interviews, neurological examinations, review of other data, and procedural skills; always makes diagnostic and therapeutic decisions based on available evidence, sound judgment, and patient preferences

1 2 (Unsatisfactory) 3 4 5 (Satisfactory) 6 7 8 (Superior) 9

### 2. Medical Knowledge

Limited knowledge of basic and clinical sciences; minimal interest in learning; does not understand complex relations, mechanisms of disease

Exceptional knowledge of basic and clinical sciences; highly resourceful development of knowledge; comprehensive understanding of complex relationships, mechanisms of disease

1 2 (Unsatisfactory) 3 4 5 (Satisfactory) 6 7 8 (Superior) 9

### 3. Practice-Based Learning Improvement

Fails to perform self-evaluation; lacks insight, initiative; resists or ignores feedback; fails to use information technology to enhance patient care or pursue self-improvement

Constantly evaluates own performance, incorporates feedback into improvement activities; effectively uses technology to manage information for patient care and Self-improvement

1 2 (Unsatisfactory) 3 4 5 (Satisfactory) 6 7 8 (Superior) 9

### 4. Interpersonal and Communication Skills

Does not establish even minimally effective therapeutic relationships with patients and families; does not demonstrate ability to build relationships through listening, narrative or nonverbal skills; does not provide education or counseling to patients, families, or colleagues .

Establishes a highly effective therapeutic relationship with patients and families; demonstrates excellent relationship building through listening, narrative and nonverbal skills; excellent education and counseling of patients, families, and colleagues; always "interpersonally" engaged

1 2 (Unsatisfactory) 3 4 5 (Satisfactory) 6 7 8 (Superior) 9

**5. Professionalism**

Lacks respect, compassion, integrity, honesty; disregards need for self-assessment; fails to acknowledge errors; does not consider needs of patients, families, colleagues; does not display responsible behavior

Always demonstrates respect, compassion, integrity, honesty; teaches/ role models responsible behavior; total commitment to self assessment; willingly acknowledges errors; always considers needs of patients, families, colleagues

1 2 (Unsatisfactory) 3      4 5(Satisfactory) 6      7 8 (Superior) 9

**6. SystemBased Learning**

Unable to access/ mobilize outside resources; actively resists efforts to improve systems of care; does not use systematic approaches to reduce error and improve patient care

Effectively accesses/ utilizes outside resources; effectively uses systematic approaches to reduce errors and improve patient care; enthusiastically assists in developing systems' improvement

1 2 (Unsatisfactory) 3      4 5(Satisfactory) 6      7 8 (Superior) 9

**Attending's Comments:**

---

---

---

---

*Completed on [www.myevaluations.com](http://www.myevaluations.com)*

## Evaluation of Resident by Nurse

NA: Not Applicable  
BE: Below Expectations  
ME: Meets Expectations  
EE: Exceeds Expectations

### **Interpersonal and Communication Skills**

Effectively uses verbal and non-verbal skills to create a rapport with patients/families.

NA BE ME EE

### **Professionalism**

The resident is Conscientious, completes tasks reliably and follows up on details.

NA BE ME EE

Demonstrates honesty and integrity.

NA BE ME EE

The resident accepts suggestions graciously and is willing to change.

NA BE ME EE

The resident has a strong sense of responsibility and accountability.

NA BE ME EE

The resident treats staff with respect and is not verbally abusive when under stress.

NA BE ME EE

The residents functions well as a team member.

NA BE ME EE

The resident communicates effectively with staff.

NA BE ME EE

### **Humanistic Qualities**

The resident is sensitive and empathetic.

NA BE ME EE

The resident communicates effectively with patients and families.

NA BE ME EE

The resident respects confidentiality.

NA BE ME EE

**Miscellaneous Questions**

The resident effectively plans the course of care.

NA BE ME EE

The resident anticipates post-discharge needs.

NA BE ME EE

The resident is well organized and accomplishes work in a timely manner.

NA BE ME EE

The resident cosigns verbal orders, dates and times orders.

NA BE ME EE

*Completed on [www.myevaluations.com](http://www.myevaluations.com)*

## Evaluation Responsibilities

1. The Program Director is required to certify that each resident, at the end of his or her residency training, is clinically competent in each of the six ACGME Core Competencies. Ongoing evaluation is required of faculty members who teach and supervise residents; the resident is also evaluated by peers, nurses, and students. The resident will also evaluate the faculty, and the program.
2. Global Assessment Forms evaluating all six ACGME Core Competencies must be filled out by the Attending for each fellow at the end of the rotation. It is important to write at least 2 or 3 sentences at the bottom of the form summarizing the resident's performance. In order to provide more accurate evaluations, the attending should keep notes on the performance of each resident throughout the attending period.
3. The attending should direct teaching not only to enhance medical knowledge and clinical judgment, but also to improve individual clinical skills. During the attending period, the first and second year neurology resident should be asked to demonstrate for 5-10 minutes at the bedside, selected interview and physical diagnosis skills.
4. At least one medical record must be reviewed by the Attending to determine the quality of record keeping, including clinical decision making, follow-through in patient management and preventive health services, and appropriate use of clinical facilities and resources (e.g., appropriate laboratory tests and consultations). Each neurology resident will select a new patient consultation note or admission note and submit this to the attending for his/her review. The neurology attending will complete the resident chart review form and provide verbal feedback to the resident concerning the written note.
5. Feedback should be provided to the all members of the neurology inpatient team on an ongoing basis. Ideally, the attending should meet briefly immediately after Attending Rounds with the resident who presented the case. In addition, the attending is expected to meet individually with each resident and medical student at the end of his/her rotation to provide verbal feedback.
6. The Program Director should be contacted personally if any particular Neurology resident is performing unsatisfactorily.



## **Evaluation of Attending by Resident**

Each resident is asked to evaluate the attending on the following areas using Myevaluations.com:

- 0 – Not Applicable
- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly Agree

- 1- Served as a role model.
- 2- The Attending was interested on teaching.
- 3- The Attending had a positive effect on my education.
- 4- Effectively role modeled professional behavior in approach to patients and other members of the team.
- 5- Utilized his/her fund of knowledge and skills to develop my clinical skills.
- 6- Provided performance feedback and criticism in a constructive manner.

*Completed on [www.myevaluations.com](http://www.myevaluations.com)*

# **SECTION III**

## **CONFERENCES**

## Formal Didactic Sessions

### 01) Core-Curriculum

- a) Conference
- b) Required
- c) Faculty staff members who are experts in their field give didactic sessions that cover commonly encountered issues
- d) They are held on Thursdays from 12:00 – 1:00 p.m.

### 02) Grand Rounds

- a) Conference
- b) Required
- c) PGY II, PGY III and PGY IV residents present Neurology Grand Rounds introducing principles of evidence based medicine through the use of a case based presentation and topic overviews or through recently published articles.
- d) They are held on Wednesdays from 12:00 – 1:00 p.m.

### 03) Morbidity and Mortality

- a) Conference
- b) Required
- c) A case, with an adverse outcome or death, is discussed and thoroughly reviewed. The chief resident is asked to identify system-errors and propose a plan for improvement. Some of those cases are selected for the Mortality and Morbidity conferences. During the presentation, gaps in patient care are identified and the discussion focuses on how care could have been improved.
- d) They are held every 3 months

### 04) Board Review

- a) Conference
- b) Required
- c) They are led by the PGY IV's or one faculty member. These sessions serve as a preparation for the In-service training examination (RITE). They are designed for Neurologists as a comprehensive review of Neurology.
- d) They are held twice per week from 12:00 – 1:00 p.m. between December and February

05) Neuroscience Reading club

- a) Conference
- b) Required
- c) They are led by the PGY IV residents who provide basic neuroscience lectures regarding various neuroanatomy, CNS connection pathways and neurologic diseases.
- d) They are held on Tuesdays from 12:00 – 1:00 p.m.

06) Morning Report

- a) Conference
- b) Required
- c) Residents on the ward and consult services are asked to present two morning reports every week. They are held in the presence of the ward and consult service attendings. This is an interactive discussion where the resident presents a case with full description of the history, neurological exam and the appropriate management.
- d) They are held on Tuesdays and Fridays from 8:15 – 9:15 a.m.

07) Epilepsy Journal Club

- a) Conference
- b) Required
- c) PGY II, PGY III and PGY IV residents will provide a formal critical review over journal article emphasizing methods and statistical analysis, and discuss its implications for practice.
- d) They are held on Mondays, Wednesdays and Thursdays from 8:30 a.m. – 9:30 a.m.

08) Multiple Sclerosis Conference

- a) Conference
- b) Required
- c) Residents attend a weekly MS conference presented by the MS research fellows, MS fellow and MS Pharmacist.
- d) They are held on Fridays from 12:00 – 1:00 p.m. between October and June

**SECTION IV**

**DEPARTMENT OF NEUROLOGY**

**POLICIES**

## **Policy on Selection of Residents**

The Neurology residency training program accepts every year 3 categorical residents at the PGY I level.

Applicants for Neurology residency program at the American University of Beirut are selected on the basis of the following:

- Performance in medical school, as evidenced by their official transcript (25%)
- Three letters of reference from faculty at their medical school (15%)
- Personal and professional traits based on interviews with the Chairperson of Neurology, Program Director and several other faculty in the Department of Neurology (30%).
- Clinical Medical Science Examination scores: IFOM, USMLE (30%)
- Foreign Medical Graduates applying for a Neurology residency at the American University of Beirut are selected on the basis of the same criteria as above.
- The Neurology Residency Selection Committee reviews all information on candidates and constructs the rank list.

### Residency Selection Committee:

Dr. S. Atweh (Chairperson)

Dr. J. Salameh (PD)

Dr. S. Tabbal (Associate PD)

Dr. H. Doumiaty (Chief Resident)

Ms. Tala Sabbagh (Residency Coordinator)

## **American University of Beirut Medical Center Neurology Resident Supervision Policy**

### **PURPOSE:**

To ensure that an appropriate level of clinical supervision is provided to all residents during clinically relevant educational activities.

### **SCOPE:**

This policy will apply to all house staff and all attending physicians within the Neurology Residency Program at AUBMC.

### **DEFINITIONS:**

*House Staff:* Practitioners appointed to the Neurology residency or clinical fellowship program. Intern, PGY resident and fellow are all House Staff designations.

*Attending Physician (or his/her coverage):* An appropriately licensed and credentialed physician practicing within AUBMC.

*Medical Student:* A student enrolled in the AUB Medical School.

### **POLICY**

Attending physicians are expected to provide an appropriate level of clinical supervision required of all residents during clinically relevant educational activities. AUBMC and the Department of Neurology subscribe to a philosophy that the most effective learning environment for post-graduate medical trainees is one that provides (a) sufficient freedom and graded responsibility for house staff to share responsibility for decision-making in patient care under adequate faculty supervision, (b) supervising faculty feedback to house staff concerning their diagnostic and management decisions, and (c) patient's right to expect a healthy, alert, responsible and responsive physician dedicated to delivering safe, effective and appropriate care. In order to create this type of learning environment, ensure appropriate levels of house staff supervision, and compliance with the *Essentials of Accredited Residencies*, the Medical Center and the Department of Neurology strive to ensure that the principles set forth in this policy and these procedures are followed by the Neurology Residency training program sponsored by the AUB Medical School with participation by AUBMC.

## PRINCIPLES

1. All inpatients at AUBMC will be under the continuous care of a member of the medical staff.
2. Clinical responsibilities must be conducted in a supervised and graduated manner, allowing house staff to assume progressively increasing responsibility in accordance with their level of education, ability, and experience.
3. Attending physician supervision must include timely and appropriate feedback, and methods for effectively communicating with supervising faculty. House staff must always request guidance or supervision whenever there is a question about patient assessment or conduct of care that the house officer does not feel he/she can answer or undertake. Residents will never be criticized for asking for help, only for failing to do so when necessary
4. To ensure effective communication, the Department of Neurology is responsible for providing an on call roster of attending physicians that can accurately designate the coverage for every Neurology service at all times. The Department of Neurology is responsible for updating the list with any appropriate changes.
5. At the time of admission, the name of each patient's attending physician and residents (if appropriate) must be entered into the information system and updated as necessary throughout the patient's hospitalization.
6. All house staff activities are supervised by attending physicians who have overall responsibility for patient care rendered and the ultimate authority for final decision-making. The particular house staff- attending relationship and the structure of attending supervision will vary according to patient care setting.
7. Attending physician schedules must be structured to provide house staff with continuous supervision and consultation. Attending physician call schedules are structured to ensure that support and supervision are readily available to house staff on duty.

## PROGRAM AND GENERAL (SITE-SPECIFIC) HOUSESTAFF SUPERVISION.

### *Program Specific Housestaff Supervision:*

The Neurology Residency Program will maintain appropriate supervision policies, compliant with ACGME-I Program Requirements.

General – The following Supervision requirements are applicable to the site specified in subsections a – d.

### *a. Housestaff Supervision on Inpatient Services:*



- A patient care team that may include medical students, interns, residents and fellows, under the supervision of a faculty physician will care for patients admitted to the Neurology service.
- Decisions regarding diagnostic tests and therapeutics, although initiated by house staff, will be reviewed with the responsible Neurology attending during patient care rounds, or through verbal communication.
- Patients will be seen daily by the responsible Neurology attending and their care will be reviewed with the attending at appropriate intervals. At minimum, the attending will document his/her involvement in the care of the patient in the medical record on a daily basis and more often as required by the clinical situation.
- House staff are required to promptly notify the patient's attending physician in the event of any controversy regarding patient care or any serious change in the patient's condition. Examples of serious change would be an unexpected change in a patient's condition that would require admission to an intensive care unit or the need for an urgent diagnostic procedure or the need for an emergency consultation.
- Neurology Attending physicians (or their On-Call Counterparts) are expected to be available by telephone or pager, for house staff consultation and for on-site consultation 24 hours per day for their term on service, on-call day or for their specific patients. Attending physicians must see patients admitted to their service within twenty four hours or sooner if necessary based on the patient's clinical condition on admission.

b. *Supervision of House Staff in Ambulatory Services:*

- In Ambulatory Services, responsible attending physician must review overall patient care rendered by house staff.

c. *Supervision of House Staff Participating in Consultation Requests:*

-Requests for consultation should be approved by the patient's attending physician. Residents may be part of the Neurology consultation process, but the attending physician covering the Neurology Consult service, must approve in writing, any recommendations made by the Neurology resident staff. In addition, the attending consultant must

agree in writing with any physical findings documented by the resident participating in the consult.

*d. Supervision of House Staff with Respect to Urgent/Emergent Admissions*

-All admissions to attending physicians will be discussed directly with the admitting service. House staff may not admit patients to the responsible Neurology attending physician without his/her knowledge of the clinical situation. Any conflict regarding patient admission will be resolved by direct communication between the emergency department attending and the admitting Neurology service attending as outlined in the Bed Assignment Policy.

## **MONITORING COMPLIANCE**

The quality of house staff supervision and adherence to supervision guidelines and policies will be monitored to ensure proper supervision in the program's clinical settings (including nights and weekends). The Residents and faculty will be requested to immediately report any lapses in adherence to the supervision guidelines and policies to the Neurology Program Director and Neurology Department Chair. The individual Neurology Residents and supervising faculty will also be queried monthly through the Department's evaluation tool, MyEvaluations, about the quality of the housestaff supervision and the adherence to supervision guidelines and policies. The quality of the supervision and the adherence to the guidelines and policies will also be surveyed by the GMEC's annual review of the housestaff's evaluations of their faculty and rotations and through the GMEC's internal reviews of programs. The on-line MyEvaluations program is programmed to alert both the Chairman of the Department and the Program Director to any inadequate supervision in a protected manner. These exceptions or critical instances of breakdown of supervision will be immediately investigated and remediated as deemed most appropriate free from reprisal. This information will be presented annually to the GMEC

For any significant concerns regarding house staff supervision, the Neurology program director shall submit a plan for its remediation approved by the Department Chair, to the Chief Medical Officer for review and approval by the Medical Staff Executive Committee. This will also be forwarded to the GMEC for review.

## **IMPLEMENTATION:**

This policy, together with the GMEC and medical staff supervision policies will be distributed annually at the Department meetings and will be distributed

annually at new resident/fellow orientation. It will be reviewed annually and major revisions will be distributed to the groups described above as soon as they are completed.

## **Policy on Resident Work Hours**

The Department of Neurology is fully committed to maintaining high standards of patient care and resident education, and realizes that monitoring and regulating work hours are key aspects of this standard of care. The following policy on resident Work Hours has therefore been established:

A resident may not work more than 80 hours in a single week. Activities included in these 80 hours are all time spent in the hospital in the care of inpatients and outpatients, all educational conferences and rounds, and all time on call during which the resident is involved in the care of patients.

Each resident will have a 24 hour period off each week. (Free from all educational and clinical activities).

Each resident must have 10 hours off between shifts.

No resident may work more than 24 consecutive hours involved in direct patient care. Residents can remain up to 6 hours more to participate in didactic activities and transfer of care. In-house calls occur no more frequently than every 3<sup>rd</sup> night averaged over a 4 week period.

Residents are required to enter their duty hours into our electronic tracking system "Myevaluations" weekly.

Residents work hours are closely monitored for compliance on a weekly/monthly basis by the Program Director and Program Coordinator.

Duty hours are shared monthly with the GME office.

The program takes duty hour monitoring and compliance very seriously.

## **Policy on Evaluation of Faculty and the Residency Program**

Residents are expected to evaluate faculty members twice per year and the program once per year using Myevaluations.com. All evaluations are anonymous.

## **Policy on Resident Travel to Scientific Meetings**

All residents are required to attend at least one national/International conference during their residency.

The Department of Neurology will provide up to \$1000 for each Neurology resident to cover travel expenses to an approved international scientific meeting.

If the resident is presenting a paper at a scientific meeting, the Department of Neurology will provide support for any travel expenses up to a maximum of \$1000.

## **Policy on Activities of Pharmaceutical Representatives**

The Neurology Department appreciates the support of Pharmaceutical Companies for the educational programs of the neurology residents. In order to strictly prevent a conflict of interest that may arise as a result of their sponsorship of educational programs, the following policy concerning activities of pharmaceutical company representatives has been established:

- All pharmaceutical luncheons must be pre-approved by the Chairperson of Neurology.
- Pharmaceutical company representatives are allowed to distribute promotional items at these conferences.
- Due to issues of patient confidentiality and HIPAA regulations, pharmaceutical company representatives cannot be present at any conference at which specific patient information is disclosed.
- Pharmaceutical company representatives are not permitted to speak or show videotapes during any of the conferences, nor are they permitted to influence the topic or the content of the conference.
- Neurology residents may speak with pharmaceutical company representatives individually before or after the conference if they so desire.

# Clinical Competency Committee

American University of Beirut Medical Center  
Neurology Residency Program  
2017-2018

## Clinical Competence Committee (CCC)

During meetings occurring every six months, the CCC is responsible for:

Reviewing all resident evaluations: Particularly, review of resident performance in key areas:

- Patient care
- Professionalism
- Interpersonal and communication skills
- Medical Knowledge
- Practice-based learning
- System-based learning
- Teaching
- Scholarship

Preparing the Milestones report (as applicable) for each resident

Advising the Program Director on resident progress - including promotion, remediation, and dismissal

## Clinical Competence Committee Members 2017-2018

Achraf Makki (Chair of the CCC Committee)  
Samir Atweh (Chairperson)  
Johnny Salameh (PD)  
Samer Tabbal (Associate PD)  
Ahmad Beydoun  
Raja Sawaya  
Wassim Nasreddine  
Pierre Bou Khalil (PD of Internal Medicine)



# **Program Evaluation Committee**

American University of Beirut Medical Center  
Neurology Residency Program  
2017-2018

## Program Evaluation Committee (PEC)

During annual meetings, the PEC reviews and makes recommendations on the following aspects of the program:

- Previous year's Annual Program Evaluation
- Action / improvement plan
- Areas of non-compliance with ACGME-I regulations
- Curriculum, including goals and objectives and evaluation methods
- Program changes
- Recruitment of residents
- Evaluations of program by faculty and residents
- Overall program quality
- Resident performance
- Faculty development
- Graduate performance

Minutes of the meeting and recommendations / action plan of the committee are documented in an Annual Program Evaluation (APE). This documentation also identifies how suggested program improvements initiatives will be measured and monitored. The APE is reviewed with Neurology faculty and residents.

## Program Evaluation Committee Members 2017-2018

### Faculty

Samir Atweh (Chairperson and Chair of the PEC)  
Achraf Makki (Chair of the CCC committee)  
Samer Tabbal (Associate PD)  
Ahmad Beydoun  
Raja Sawaya  
Johnny Salameh (PD)  
Wassim Nasreddine

### Residents

Sidonie Ibrikji (PGY 1)  
Nesrine Jaafar (PGY2)  
Georges Saab (PGY3)  
Jawad Melhem (PGY4 Educational Co-Chief Resident)  
Gilbert Youssef (PGY4 Chief Resident)

# **Policy on Resident Vacation and Leaves**

## **I. PURPOSE:**

**1.1** The Neurology Residency Program at AUBMC Department of Neurology is compliant with the requirements of the American Board of Psychiatry and Neurology (ABPN) for trainee eligibility to take the Adult Neurology board certification examination and to meet the requirements of the ACGME for successful completion of the ACGME neurology program.

**1.2 American Board of Psychiatry and Neurology (ABPN) Requirements**  
Neurology residency requires 48 months of training with at least 36 months of this education in neurology. The first year of residency must consist of either 12 months of internal medicine with primary responsibility in patient care or 8 months of internal medicine and 4 months being other clinical educational rotation months. Prior to granting leave, American Board requirements will be reviewed by the administrative and medical program directors and the resident to assure that the resident understands the possibility of having to make up “time away” from training for any reason. If extended leave results in the requirement for additional training in order to satisfy ABPN requirements, availability of financial support for the additional training time must be determined when arrangements for the leave are initially discussed.

## **II. POLICY:**

### **2.1 Vacation Leave**

Vacation leave with compensation shall be four (4) weeks per academic year. Vacation time does not accrue from year to year and must be scheduled and taken in the same academic year the vacation is earned. Requested vacation time is to be submitted and approved by the chief resident, Program Director and the Chair.

### **2.2 Sick Leave**

Sick leave with compensation is given at the rate of twelve (12) days per academic year (one day per month). Sick leave is credited to the year of appointment and does not carry over from year to year. Leave for anticipated illnesses, sick leave over two weeks, or extended leave must be requested, in writing, using the AUB Leave Request Form. Those illnesses which can be anticipated to last more than two weeks should be reported in writing to the Assistant Dean for Graduate Medical Education/DIO by the Program Director. Such illness requires evaluation by the attending physician. In addition, vacation leave may be used to cover sick leave which exceeds twelve (12) days. The total

length of sick leave (paid and unpaid) may not exceed twelve (12) work weeks in a calendar year. Additional time may be required to meet educational objectives and be in compliance with ABPN and ACGME Program Requirements.

### **2.3 Personal Leave**

Personal leave to attend to personal matters of a serious, time consuming nature may be taken by mutual agreement with the program and/or department. Personal leave in excess of vacation and sick leave is uncompensated and may result in prolongation of training.

### **2.4 New Parent Leave**

Any time taken exceeding vacation leave and sick leave will be uncompensated. The resident must give written notice to the program director of his/her intention to take leave prior to the expected birth.

### **2.5 Family and Medical Leave**

Family and medical leave is provided for an eligible resident's serious health condition, or the serious health condition of the resident's child, spouse or parent. Medical leave may be requested for a medical condition affecting his/her ability to continue in a training program or provide patient care. These leaves must include the use of vacation leave and sick leave at the onset of the leave. The duration of the leave must conform to the program, department and the American Board requirements, together with the applicable GME laws. Moonlighting while on

Family and Medical Leave is not allowed and may be cause to terminate leave.

### **2.6 Qualifying Time for American Board Requirements**

The duration of Family and Medical Leave must be in compliance with the Neurology Residency training program and ACGME requirements, which concern the effect of leaves of absence (for any reason) on satisfying the criteria for completion of the training program. Additional time may be required to meet educational objectives and be in compliance with ABPN and ACGME Program Requirements.

### **2.7 Holidays**

Holidays for residents will be consistent with the schedule at the institution to which the resident is assigned to ensure rotation coverage for patient care and safety.

## **2.8 Attendance at Educational Meetings and Activities**

Scheduling of attendance at educational, scholarly, and professional activities may be granted at the discretion of the program director, after review of rotation coverage and keeping in mind patient care coverage logistics and patient safety.

## **Policy on Moonlighting**

### **BACKGROUND**

American University of Beirut (AUB) is committed to meaningful and enriching educational experiences for its residents. This includes assurance that these residents work no more than an appropriate number of hours to assure meaningful education, personal health and safety for patients. The Accreditation Council for Graduate Medical Education (ACGME) has established rules governing the performance of moonlighting activities by residents enrolled in ACGME approved programs. AUB is committed to compliance with these rules for all of its training programs (whether ACGME-accredited or not). Also, AUB has adopted some additional AUB-specific requirements for approved moonlighting. AUB's policies, which address both the ACGME and AUB requirements, are included in this policy.

### **ADDITIONAL DEFINITIONS**

"Resident" means a physician who is enrolled in an AUB Training Program for a clinical specialty or a physician who is enrolled in an AUB Training Program for a clinical subspecialty, i.e., a clinical fellow.

"American University of Beirut Training Program" means a specialty or subspecialty graduate training program at AUB, which may be either an Accredited AUB Training Program or a Non-Accredited AUB Training Program.

"Accredited AUB Training Program" refers to an AUB Training Program that is accredited by the ACGME.

"Moonlighting" means professional and patient care activities that are external to the resident's AUB Training Program.

"Internal Moonlighting" is activity which takes place at the AUB Medical Center or at the resident's educational program's Participating Institution(s).

"Participating Institution" means an institution to which residents rotate in the resident's AUB Training Program.

"External moonlighting" is moonlighting that is not internal, as defined above. (For example, for a resident in The AUB Internal Medicine Program, Rafic Hariri University Hospital (RHUH) is a Participating Institution and moonlighting there would be considered internal).

## **APPLICABILITY**

This policy applies to moonlighting of residents who are enrolled in all AUB Training Programs (Accredited and Non-Accredited).

## **CONDITIONS AND REQUIREMENTS**

**A.** No resident may be required, as a condition of his or her AUB Training Program, to perform moonlighting activities.

**B.** Residents may moonlight, but only after filing a Moonlighting Request Form<sup>1</sup> and receiving the prior written/signed approval of his/her Training Program Director, Assistant Dean for Graduate Medical Education and Chairman/Division Chief/Medical Director in the Department/Division/Hospital/Facility where moonlighting will take place. Approved Moonlighting Request Forms are to be made a part of the resident's file.

<sup>1</sup> Please see Attachment A for the Moonlighting Request Form to be completed by the resident and approved by the resident's Training Program Director, Assistant Dean for Graduate Medical Education and Chairman /Division Chief/Medical Director in the Department/Division/Hospital/Facility where moonlighting will take place.

**C.** Internal and external moonlighting are not permitted in the specialty/subspecialty that is the subject of the resident's current AUB Training Program unless the Assistant Dean for Graduate Medical Education grants a specific exception in a case where the moonlighting activities are not central to the resident's training program.

**D.** No resident may moonlight without the resident first having obtained an unrestricted Lebanese license to practice medicine in Lebanon.

**E.** The number of hours worked by a resident in internal moonlighting activities, together with the hours worked in the AUB Training Program, may not exceed the ACGME guidelines for work hours for the resident's specialty/subspecialty. The Program Director for the resident must approve and monitor the number of hours that the resident may engage in internal moonlighting activities per week.

**F.** Moonlighting activities, whether internal or external, are prohibited if they are inconsistent with the principles of providing residents with sufficient time for rest and restoration to promote the resident's educational experience and safe patient care. Therefore, the Program Director shall monitor the effect of moonlighting activities on resident performance. The Program Director or the Assistant Dean for Graduate Medical Education/DIO may withdraw permission for moonlighting activities at any time if they determine, in their sole discretion, that the moonlighting activity is having an adverse effect upon the resident's participation in the educational program in which he/she is enrolled.

**G.** Residents performing approved moonlighting activities at the AUB Medical Center will be covered under AUB Professional Liability Insurance. However, residents performing approved moonlighting activities at any hospital/facility other than AUB Medical Center will not be covered under AUB Professional Liability Insurance. A

resident who intends to engage in moonlighting activities at hospitals/facilities other than the AUB Medical Center must ensure that he/she will be covered by professional liability insurance at the location at which the moonlighting activities take place. *NOTE: EVEN THOUGH MOONLIGHTING HOURS AT A PARTICIPATING INSTITUTION COUNT TOWARD COMPLIANCE WITH THE ACGME WORK HOURS GUIDELINES (SEE PARAGRAPH E ABOVE), THE RESIDENT IS NOT COVERED BY AUB'S PROFESSIONAL LIABILITY INSURANCE FOR MOONLIGHTING ACTIVITIES UNLESS THAT INSTITUTION IS THE AMERICAN UNIVERSITY OF BEIRUT MEDICAL CENTER.*

**H.** AUB Training Programs may adopt policies governing residents in that program which are stricter than the conditions and requirements of this policy.

**Attachment A**

**MOONLIGHTING REQUEST FORM**

NAME: \_\_\_\_\_

APPOINTMENT: \_\_\_\_\_

TRAINING PROGRAM DIRECTOR: \_\_\_\_\_

NAME OF MY SPECIALTY OR SUBSPECIALTY PROGRAM: \_\_\_\_\_

1. I am considering the following moonlighting activity:

\_\_\_\_\_  
\_\_\_\_\_

2. I wish to perform these activities at:

\_\_\_\_\_  
\_\_\_\_\_

3. The proposed moonlighting schedule is as follows:

\_\_\_\_\_  
\_\_\_\_\_

4. The following is my residency/rotation schedule and actual hours worked for the past 30 days:

\_\_\_\_\_  
\_\_\_\_\_

5. I understand that the total number of hours to be worked in my internal moonlighting activities, together with the hours worked in my training program may not exceed the ACGME guidelines for work hours. I understand that my Training Program Director must approve the specific number of hours that I may engage in internal moonlighting activities per week. Internal means moonlighting activities which take place at The AUB Medical Center or at the resident's educational program's Participating Institution(s).

\_\_\_\_\_

6. I understand that my Program Director will monitor my performance for the effect of moonlighting activities on my performance in my training program. I understand that the Program Director or the Assistant Dean for Graduate Medical Education/DIO may withdraw permission for moonlighting activities at any time if they determine, in their sole discretion, that the moonlighting activity is having an adverse effect upon my educational program.

7. I understand that I may not engage in internal or external moonlighting activities in the specialty/subspecialty that is the subject of my AUB Training Program.

8. The chairman/division chief/medical director in the department/division/hospital/facility where I wish to moonlight is: \_\_\_\_\_

9. I understand that the person listed in Paragraph 8 above must sign this Moonlighting Request Form before I may submit it for consideration by my Training Program Director and the Assistant Dean for Graduate Medical Education/DIO.

10. I have obtained an unrestricted license to practice medicine in Lebanon

11. I recognize that this activity is not an approved part of my educational program and must be approved by my Program Director and the Assistant Dean for Graduate Medical Education/DIO.

12. I understand that I will be covered under AUB professional liability insurance policy for moonlighting activities at The AUB Medical Center. I understand that even though my moonlighting activities at my educational program's participating institutions count toward compliance with duty hours rule limitation, I am not covered by AUB professional liability insurance for moonlighting activities at those institutions other than the AUB Medical Center. I understand that I am responsible for obtaining my own professional liability insurance for moonlighting activities at institutions other than the AUB Medical Center.

\_\_\_\_\_  
Signature of Resident

**APPROVAL OF REQUEST TO PERFORM MOONLIGHTING ACTIVITIES**

This approval covers the above described moonlighting activity for the period from \_\_\_\_\_ to \_\_\_\_\_.

\_\_\_\_\_  
Program Director Date

\_\_\_\_\_  
Assistant Dean for Graduate Medical Education Date

\_\_\_\_\_  
Chairman/Division Chief/Medical Director Date  
in the Department/Division/Hospital/Facility  
Where Moonlighting Will Take Place

\*\*\*\*\*  
\*\*\*\*\*



Return to Graduate Medical Education Office, address: \_\_\_\_\_, Faculty of  
Medicine for Dean's Office signature. Fully executed copies will be returned to the  
Program Director and Resident.

# **SECTION V**

## **ATTENDING CLINIC SCHEDULE**

<b>Attending Clinic Schedule</b>		
<b>Attending</b>	<b>Day</b>	<b>Time</b>
<b>Dr. Samir Atweh</b>	Tuesday	9:00 a.m.- 12:00p.m.
	Wednesday	2:00 p.m. - 5:00 p.m.
	Friday	2:00 p.m. - 5:00 p.m.
<b>Dr. Achraf Makki</b>	Monday	9:00 a.m. - 12:00 p.m.
	Tuesday	9:30 a.m. - 12:00 p.m.
	Thursday	All day
	Friday	9:30 a.m. - 12:00 p.m.
<b>Dr. Samer Tabbal</b>	Monday	1:00p.m. - 5:00 p.m.
	Tuesday	9:00 a.m.- 12:00 p.m.
	Wednesday	1:00p.m. - 5:00 p.m.
	Thursday	9:00 a.m.- 12:00 p.m.
<b>Dr. Ahmad Beydoun</b>	Monday	1:00 p.m. - 5:00 p.m.
	Tuesday	9:00 a.m. - 12:00 p.m.
	Thursday	1:00 p.m. - 5:00 p.m.
<b>Dr. Bassem Yamout</b>	Monday	9:30 a.m. - 2:00 p.m.
	Tuesday	1:00 p.m. - 5:00 p.m. (MS Clinic)
	Wednesday	9:00 a.m. - 11:00 a.m. (MS Clinic)
	Wednesday	2:00 p.m. - 5:00 p.m.
	Thursday	2:00 p.m. - 5:00 p.m.
	Friday	2:00 p.m. - 5:00 p.m.
<b>Dr. Jean Rbiez</b>	Monday	8:30 a.m - 11:00 a.m.
	Thursday	8:30 a.m - 11:00 a.m.
<b>Dr. Raja Sawaya</b>	Monday	1:00 p.m. - 5:00 p.m.
	Wednesday	8:30 a.m. - 12:00 p.m.
	Thursday	1:00 p.m. - 5:00 p.m.
	Friday	All day
<b>Dr. Samia Houry</b>	Monday	2:00 p.m. - 5:00 p.m.
	Thursday	10:00 a.m. - 12:00 p.m. & 2:00 p.m. - 5:00 p.m.
<b>Dr. Riad Khalifeh</b>	Monday to Friday	10:00 a.m.- 5:00 p.m.
	Saturday	10:00 a.m. - 1:00 p.m.
<b>Dr. Wasim Naserddine</b>	Monday	1:00 p.m. - 5:00 p.m.
	Tuesday	9:00 a.m. - 12:00 p.m.
	Thursday	1:00 p.m. - 5:00 p.m.
<b>Dr. Johnny Salameh</b>	Monday	9:00 a.m. - 1:00 p.m.
	Tuesday	1:00 p.m. - 5:00 p.m.
	Wednesday	1:00 p.m. - 5:00 p.m.

## **SECTION VI**

### **SUGGESTED REFERENCES**

# Bibliography for Adult Neurology

## Neurologic Exam

- . Haerer AF. *DeJong's The Neurological Examination*, 5<sup>th</sup> Edition. J.B. Lippincott Company, 1992.
- . O'Brien M, *Aids to the Examination of the Peripheral Nervous System*, Saunders Ltd.; 5 edition (May 31, 2010) (A detailed guide to examination of muscles supplied by individual peripheral nerves)
- . Strubb RL, Black FW. *The Mental Status Examination in Neurology*, 4<sup>th</sup> Edition, F.A. Davis, 2000.

## General Neurology

- . Rowland LP (editor). *Merritt's Neurology*, 11<sup>th</sup> Edition. Lippincott Williams & Wilkins, 2005.
- . Ropper AH, Brown RH. *Adams and Victor's Principles of Neurology*, 8<sup>th</sup> Edition. McGraw-Hill Professional, 2005.
- . Darof R. et Al, *Bradley's Neurology in Clinical Practice*, 2 volumes set, 6<sup>th</sup> Ed., Elsevier, 2012.
- . Brazis P, Masdeu J, and Biller J, *Localization in Clinical Neurology*. 6<sup>th</sup> ed., Lippincott Williams, and Wilkins, 2011.
- . Aminoff MJ. *Neurology and General Medicine*, 3<sup>rd</sup> Edition. Churchill Livingstone, 2001.
- . Lindsay KW, Bone I. *Neurology and Neurosurgery Illustrated*, 4<sup>th</sup> Edition, Churchill Livingstone, 2004.
- . Posner JB, Saper CB, Schiff N, Plum F, *Plum and Posner's Diagnosis of Stupor and Coma*, Oxford University Press, USA; 4 edition (June 11, 2007)

## Pediatric Neurology

- . Fenichel GM, *Clinical Pediatric Neurology: A Signs and Symptoms Approach: Expert Consult - Online and Print*, 6 edition, Saunders; 6 edition (July 28, 2009)

## **Neuroanatomy**

- . Afifi A, Bergman R, *Functional Neuroanatomy text and atlas*, 2<sup>nd</sup> Edition, McGraw Hill, 2005
- . Blumenfeld H, *Neuroanatomy through Clinical Cases*, Sinauer Associates, 2002.
- . Crossman AR, Neary D. *Neuroanatomy: An Illustrated Colour Text*, 3<sup>rd</sup> Edition. Churchill-Livingstone, 2006.

## **Neurophysiology**

- . Kandel ER, Schwartz JH, Jessell TM. *Principles of Neural Science*, 4<sup>th</sup> Edition, McGraw-Hill, 2000.
- . Kandel ER, Schwartz JH, Jessell TM. *Essentials of Neural Science and Behavior*. Appleton & Lange, 1996. (Condensed version )

## **Epilepsy**

- . Guberman A, Bruni J. *Essentials of Clinical Epilepsy*, 2<sup>nd</sup> Edition. Butterworth Heinemann, 1999.
- . Libenson M, *Practical Approach to Electroencephalography*, Elsevier, 2010.

## **Multiple Sclerosis/ Neuroimmunology**

- . Lucchinetti C, Hohlfeld R, Blue Books of Neurology series, Volume 34, Multiple Sclerosis 3. Elsevier, 2009.
- . Compston A, Confavreux C, Lassmann H et al. *McAlpine's Multiple Sclerosis*, 4<sup>th</sup> Edition. Churchill Livingstone, 2005.

## **Movement Disorders**

- . Movement Disorders, Third Edition by Ray L. Watts, David G. Standaert and José Obeso (Aug 12, 2011)
- . Principles and Practice of Movement Disorders: Expert Consult, 2e by Stanley Fahn MD, Joseph Jankovic MD and Mark Hallett (Aug 25, 2011)
- . Marsden's Book of Movement Disorders by Ivan Donaldson, C. David Marsden, Susanne Schneider and Kailash Bhatia (May 23, 2012)

- . Movement Disorders in Childhood: Expert Consult - Online and Print, 1e (Expert Consult Title: Online + Print) by Harvey S. Singer MD, Jonathan Mink, Donald L. Gilbert and Joseph Jankovic MD (Dec 15, 2010)

### **Neuromuscular Disorders**

- . Preston DC, Shapiro BE. *Electromyography and Neuromuscular Disorders: Clinical-Electrophysiologic Correlations*, 2<sup>nd</sup> Edition. Elsevier, 2005.
- . Mendell JR, Kissel JT, Cornbath DR. *Diagnosis and Management of Peripheral Nerve Disorders* (Contemporary Neurology Series 59). Oxford University Press, 2001.

### **Neuro-ophthalmology**

- . Liu GT, Volpe NJ, Galetta S. *Neuro-Ophthalmology: Diagnosis and Management*. W.B. Saunders, 2000.
- . Burde RM, Savino PJ, Trobe JD. *Clinical Decisions in Neuro-Ophthalmology*, 3<sup>rd</sup> Edition. Mosby, 2002.

No Sz, No Coma



30 minutes screening EEG EEG risk



15 hours of CEEG

-ve



<5% risk

-ve EEG risk, sz



No Sz, In Coma



90 minutes screening EEG EEG risk



17 hours of CEEG

-ve



<5% risk

-ve EEG risk, sz



Has Sz, No Coma



13 hours screening EEG EEG risk



22 hours of CEEG

-ve



<5% risk

-ve EEG risk, sz



Has Sz, In Coma



17 hours screening EEG EEG risk



45 hours of CEEG

-ve



<5% risk

-ve EEG risk, sz

