A DEPARTMENTAL GUIDE FOR RESIDENTS AND FACULTY CAN BE VIEWED ONLINE ON NEW INNOVATIONS AND NEUROSURGERY WEBSITE:

Date updated: Fall/2016
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Overview of the Neurosurgery Residency Training Program

The Neurological Surgery Residency Training Program sponsored by NYU School of Medicine at the NYU Langone Medical Center is a seven-year program designed to provide residents with increasing clinical and surgical responsibility over the course of their training, in order to prepare graduates for an academic neurosurgical career; a high-quality practice in the private sector; or further training in a sub-specialty fellowship.

The overall goal of the Department of Neurological Surgery training program at New York University (NYU) School of Medicine is to train highly motivated, Confident, and clinically excellent neurological surgeons who are not only skilled in the technical aspects of the specialty but also appreciate the humanistic side of the practice of medicine and the collegiality of their peers.

The NYU Neurological Surgery Department is organized into sub-specialty teams that span across the participating institutions with each individual faculty member focused in an area of clinical and research expertise including: vascular/endovascular Neurosurgery, tumor and skull base neurosurgery, complex reconstructive and minimally invasive spinal surgery, pediatric neurosurgery, functional neurosurgery, peripheral nerve surgery, adult and pediatric epilepsy surgery, stereotactic radiosurgery, and neurotrauma. Affiliated faculty members from other subspecialties also participate in resident teaching in endovascular neurosurgery (Interventional Neuroradiology), skull base surgery (Neuro-otology), and Neuro-oncology.
Program Director, Associate Director, & Administrative Staff

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**John G. Golfinos, MD**  
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IT Manager  
**David Ton**  
David.Ton@nyumc.org
Facilities

Our residency-training program in clinical neurosurgery utilizes three medical institutions, all located in close geographical proximity to each other on the East Side of Manhattan between 23rd and 34th Street.

- **NYU Langone Medical Center (Tisch Hospital).**
  Located on NYU Langone’s main campus, Tisch Hospital houses a full-service, state-of-the-art acute care neurosurgical facility that performs approximately 1,800 neurosurgical procedures each year. At Tisch Hospital resources include: 5 state of the art neurosurgical suites are available daily. These OR's have full microsurgical capabilities. There is also a dedicated combined OR / angiography suite. Additionally, a 2-room digital neuroangiography suite is available to neurosurgery daily in the neuroradiology suite. We have added a new Gamma Knife® PERFEXION unit which has enhanced our capabilities in Stereotactic radiosurgery. We have also added five new Brain Lab Systems, a Stryker Navigation system, and a Stealth O-ARM system that enhance our frame based and frameless Stereotactic surgery and spinal navigation capabilities. Our state-of-the-art neurosurgical intensive care/postoperative unit has ten beds and is adjacent to our neurosurgical floor, which contains another 18 beds. In addition, the renowned Rusk Institute of Rehabilitation Medicine also part of NYU Langone Medical Center is often used for the sub acute neurosurgical rehabilitation of our patients.

- **Bellevue Hospital Center.**
  This world famous city hospital and America’s oldest public hospital and a regional Level 1 Trauma Center, is a flagship of the NYC Health and Hospital corporation and the heart and soul of the NYULMC Neurosurgery program. Its mission is to provide the best available medical care to the residents of NYC regardless of income or socioeconomic status. Bellevue provides comprehensive neurosurgical care in facilities that include a brand-new six-bed neurosurgical ICU, and 24 beds on the neurosurgery/neurology floor. In addition to trauma, Bellevue Hospital Center provides a unique clinical experience within the NYU Langone neurosurgical residency training program. At Bellevue hospital there is 1 dedicated state of the art neurosurgical suite with full microsurgical capabilities available to the Neurosurgical service on scheduled OR days and for neurosurgical emergency cases.

- **VA New York Harbor Healthcare System (formerly the Manhattan Veterans Administration Medical Center).**
  The VA New York Harbor Healthcare System is the primary veterans neurosurgical referral center for New York City and surrounding areas. It has 1 dedicated state of
the art neurosurgical suite with full microsurgical capabilities available to the neurosurgical service.

Currently under construction is NYU Langone’s new Kimmel Pavilion, a state-of-the-art clinical facility scheduled to open in 2018, which will be one of the most advanced neurosurgical facilities in the country. It will contain a dedicated neurosurgical operating suite comprised of 8 state-of-the-art OR’s (2 with intraoperative MRI capabilities, and 2 dedicated combined OR/angiography suites (hybrid operating rooms), comprising the second floor of the Kimmel Pavilion. This facility will also include a brand new neurological intensive care unit, neurological care step-down unit, patient rooms as well as a pediatric hospital within a hospital with additional dedicated pediatric neurosurgical space.
Core Faculty

Core Faculty by Sections

Brain Tumors & Skull Base Neurosurgery

John G. Golfinos, MD – Chairman of the Department of Neurosurgery / Co-Director, Brain Tumors Center

Chandranath Sen, MD – Professor / Director, Skull Base

Douglas Kondziolka, MD, MSc – Professor / Director, Center for Advanced Radiosurgery at NYU Langone Medical Center

Dimitris Placantonakis, MD, PhD – Assistant Professor

Jafar Jafar, MD – Professor / Director, Cerebrovascular Surgery, Neurosurgeon-in-Chief

David Gordon, MD – Assistant Professor

Spinal & Peripheral Nerve Neurosurgery

Anthony Frempong-Boadu, MD – Associate Professor / Director, Spinal Surgery / Co-Director, Spine Center

Noel Perin, MD – Associate Professor / Director, Minimally Invasive Spinal Surgery

Michael Smith, MD – Assistant Professor

Donato Pacione, MD – Assistant Professor

Ramesh Babu, MD – Associate Professor

Erich Anderer, MD – Assistant Professor

Cerebrovascular Neurosurgery

Howard A. Riina, MD – Professor / Director, Endovascular Surgery

Jafar Jafar, MD – Professor / Director, Cerebrovascular Surgery, Neurosurgeon-in-Chief

Paul Huang, MD – Assistant Professor
David Gordon, MD – Assistant Professor

**Center for Neuromodulation (Deep Brain Stimulation and Neurostimulation for Pain and Headache)**

Alon Mogilner, MD, PhD – Associate Professor / Director, Center for Neuromodulation

Douglas Kondziolka, MD, MSc – Professor / Director, Center for Advanced Radiosurgery at NYU Langone Medical Center

Michael Pourfar, MD – Associate Professor

**Epilepsy**

Werner Doyle, MD – Associate Professor

**Adult Hydrocephalus Program**

James B. Golomb, MD – Assistant Professor

**Pediatric Neurosurgery**

Jeffrey Wisoff, MD – Professor / Director

David Harter, MD – Assistant Professor / Associate Director, Neurosurgery Residency Training Program

Amanda Yaun, MD – Assistant Professor

E. Teresa Hidalgo, MD – Clinical Instructor

**Research**

Mitchell Chesler, MD – Professor / Vice Chair, Research

Douglas Kondziolka, MD, MSc – Professor / Vice Chair, Clinical Research

Margaret Rice, PhD – Professor

Dimitris Placantonakis, MD, PhD – Assistant Professor
Hae-Ri Song, MD – Assistant Professor

BELLEVUE Hospital
Paul Huang, MD – Assistant Professor / Chief Bellevue Neurosurgery Service
Stephen Russell, MD – Assistant Professor

NYU Lutheran Medical Center
Erich Anderer, MD – Assistant Professor / Chief
David Gordon, MD – Assistant Professor

VA NY Harbor Healthcare System, Manhattan Campus
James Stone, MD – Professor / Chief
Training Program Curriculum

CHRONOLOGICAL ROTATIONS, TRAINING STRUCTURE AND CURRICULUM

All rotations are required

Year 1: Internship

In the first postgraduate year (PGY-1) residents are required to participate in a neurosurgical internship at New York University. The intern year consists of a Neuroscience block that includes 3 months of Neurology and one month each of neuropathology, neuroradiology, and neurosurgery (at Bellevue Hospital and Tisch Hospital). The Neurosurgery rotation allows the new residents to become familiar with the day-to-day operation of the NYU neurosurgical service thus allowing them to gain insight into what will be required of them as they progress through the neurosurgical residency training program. The internship also includes a General Surgery experience that includes adult general surgery, ICU/Critical care, and trauma surgery. Most of these rotations have major critical care experiences as part of the overall internship experience.

Year 2: Clinical Neurosurgery, Neuropathology, and Neuroradiology

In the second year of neurosurgery residency (PGY-2), the residents have four three month rotations on four distinct NYU Neurosurgical Services: Tisch Hospital Team 1 (Tumor Vascular/Skull Base/Functional/Epilepsy Service), Tisch Team 2 (Spine/Peripheral Nerve Services), Bellevue Hospital Center, and New York Harbor Health Care System (VA). The rotations provide neurosurgical ward, neurosurgical clinic and critical care experiences in varied neurosurgical practice environments. With close supervision, the residents are introduced to basic ward and operative procedures including trauma craniotomy, CSF diversion (ventriculostomies and shunts), lumbar punctures, traction for spine trauma, basic spine procedures, peripheral nerve procedures and intracranial pressure monitoring. Residents are also introduced to interventional neuroradiology procedures including basic angiography.

Year 3: Clinical Neurosurgery, Neuropathology, and Neuroradiology with Graduated Responsibilities

In the third year of neurosurgery residency (PGY-3), the residents rotate with increased levels of ward, clinic, ICU and operative responsibilities through the same four three month rotations they did as a PGY 2 year - Tisch Hospital Team 1 (Tumor Vascular/Skull Base/Functional/Epilepsy Service), Tisch Team 2 (Spine/Peripheral Nerve Services), Bellevue Hospital Center, and New York Harbor Health Care System (VA). The rotations continue to provide neurosurgical ward, clinic and critical care experiences in varied neurosurgical practice environments. With close supervision from the chief residents and faculty, the residents are introduced to increasingly complex ward and operative procedures, and outpatient clinics at BHC and the VA (one day/wk), and management of neurosurgical emergencies in the BH and the NICU. This includes both increased responsibility for operative and non-operative patient care. spine traction, simple spine procedures, peripheral nerve procedures and intracranial pressure monitoring. Interventional Neuroradiology rotations at both
Bellevue and Tisch introduce the residents to interventions including aneurysm treatment, management of vasospasm and tumor embolization. Residents also are introduced to Gamma Knife radiosurgery including head frame application and lesion treatment planning.

**Year 4: Pediatrics/Epilepsy/Trauma**
In the fourth year of neurosurgery residency (PGY-4), is divided between six months as the senior resident on the pediatric neurosurgery service at NYU Langone’s Tisch Hospital and six months as the senior resident on the neurosurgical trauma service at Bellevue Hospital. These rotations provide graduated clinical and operative responsibility with a defined patient population. The six-month rotation period as chief resident on the Pediatric Neurosurgery service with Drs. Wisoff and Harter allows for a in-depth exposure to the sub-discipline of pediatric neurosurgery. Resident experience a continuity of care learning experience by participating in the medical as well as surgical management of these patients. Patients see patients in the clinic and follow them thru their pre-operative, operative and post operative care. During these six months, the chief is exposed to the full range of operative pediatric neurosurgical disorders, including an extensive experience with pediatric brain tumors, epilepsy and cranial endoscopy. The division has collaborative efforts with the Department of Plastic Surgery in the treatment of craniofacial disorders. The trauma experience at the Bellevue Hospital represents a unique neurosurgical experience at one of the busiest level 1 trauma centers in New York City.

**Year 5: Research/Elective**
The fifth neurosurgery year (PGY-5) is entirely devoted to a hypothesis-driven basic science research project in order to establish the foundation for an academic or other innovative neurosurgical career or under special circumstances, a dedicated yearlong subspecialty clinical elective. In the past, residents have chosen focused clinical electives in Functional Neurosurgery, Endovascular Neurosurgery, Radiosurgery, and Complex Spine Surgery. The PGY 5 resident takes night call as the primary emergency consult resident and first assistant for the Bellevue Hospital Chief Resident in emergency / trauma cases with graduated levels of operative responsibility. Residents continue to attend neurosurgical didactic conferences and other major Departmental events during this year. The Neurological Surgery department’s effort and commitment to research for House Staff will now include the Intensive Training in Research Statistics, Ethics, and Protocol Informatics and Design (INTREPID) Summer Intensive Program for each and every resident starting their fifth or research year.

**Year 6: Clinical Neurosurgery (Chief Resident Year #1)**
The sixth neurosurgery year (PGY-6) is divided between two 6-month senior /service chief resident rotations on the Tisch Hospital Neurosurgery services: Team 1 (Tumor/Vascular/Skull Base/Functional/Epilepsy Service), and Team 2 (Spinal and Peripheral Nerve Services). These rotations provide the opportunity to manage a clinical service with directed supervision and
educational responsibility for junior residents and rotating medical students. Under the supervision of the Neurosurgical Faculty, the resident assumes increasing operative and non-operative patient care responsibility. This includes greater participation in the crucial portion of neurosurgical operative procedures.

**Year 7: Clinical Neurosurgery (Chief Resident Year #)**
The seventh neurosurgery year (PGY-7) is devoted to 6 months of Chief Residency each at Bellevue Hospital Center and at the New York Harbor Health Care System. The Bellevue chief resident also serves as administrative chief resident for the NYU Neurosurgery Residency Program. With appropriate supervision, these rotations provide the residents with an opportunity to essentially completely direct a clinical service with longitudinal follow-up of all patients from initial consultation (in the clinics or ER) through to postoperative follow-up. The New York Harbor Health Care System is the regional VA Neurosurgical referral center for the tri-state region and Bellevue Hospital is a busy Level -1 trauma center and the main facility of the public hospital system (HHC system) in New York City.
Training Program Schedules

Duties of the residents in the NYULMC Neurological Surgery program are structured to provide a graduated experience and involvement in neurosurgical patient management and preoperative, intraoperative, and postoperative patient care, foster a learning environment to develop the resident as a neuroscientist, and mentor the resident to mature as a thoughtful, caring, and compassionate physician/neurosurgeon.

The standard rotation schedule for neurosurgery rotations is depicted below. Note that variations will occur based on individual circumstances and personnel changes.

Site 1 New York University Langone Medical Center
Site 2 Bellevue Hospital Center
Site 3 VA Medical Center

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Conferences

Neurosurgery Department Conferences

The conferences occur during a block of time protected from elective clinical activity. Residents are required to attend at least 75% of all mandatory resident conferences. Conference attendance, punctuality and participation will be reviewed and discussed at the Milestone Evaluation Committee and with individual residents at their semi-annual review. Designated faculty are assigned to oversee each conference. All faculty members are in addition encouraged to attend all conferences and are required to attend selected conferences.

The Neurosurgery Department holds intra- and interdepartmental teaching conferences throughout the week, with Fridays devoted to conferences from 7:30 a.m. to 3:00 p.m. as an academic day. Elective surgery may be performed but without dedicated resident coverage. Conferences are structured with an emphasis on resident education, as trainees present clinical problems and are questioned in order to sharpen their decision-making skills. The format and topics or subject matter is modeled after the oral neurosurgical board examination. Grand Rounds guest presenters/visiting professors are selected based on their areas of clinical and research expertise. Following grand rounds presentations, visiting professors spend additional time with the residents discussing complex cases, issues in academic neurosurgery and career choices.

Conference Schedule
Monday 9:00 am Craniofacial Conference
Monday 3:30 pm Epilepsy Case Conference

Wednesday 7:30 am Cerebrovascular Conference

Thursday 7:30 am Pituitary Conference (Second Thursdays of the month)

Friday:
7:30 am Spine and Peripheral Nerve Conference
8:00 am Neurosurgery Grand Rounds, (Speakers, Unknowns, Morbidity and Mortality)
9:30 am Neuro-Oncology Tumor Board
12:00 pm Pediatric Neurosurgery Case Conference
1:00 pm Chairman Rounds

Conference Descriptions/Topics

Craniofacial Conference: Held weekly in conjunction with the Department of Plastic Surgery, this internationally recognized clinic-conference focuses on children with complicated craniofacial abnormalities.
Epilepsy Case Conference: This is a multidisciplinary conference held to discuss surgical management of patients with treatment resistant epilepsy. Location: The conference room at the NYU Comprehensive Epilepsy Center, 223 E. 34th St. in Manhattan. For information, contact Margie Hernandez at 646-558-0801 or Elizabeth Odewale at 646-558-0802.

Cerebrovascular Conference: This conference is a combined neurosurgery and interventional neuroradiology case management conference. Interesting and difficult cases are reviewed and decisions are made regarding the most appropriate management strategies.

Pituitary Conference (second Thursday of each month): This is a multi-institutional and multi-disciplinary conference of the departments of Neurosurgery, Endocrinology, Neuro-Ophthalmology and Radiation Oncology. Interesting cases and difficult clinical problems are presented and their management discussed.

Spine and Peripheral Nerve Conference: This conference is held every Friday throughout the year under the direction of Dr. Anthony Frempong of Neurosurgery. Pre- and postoperative cases are presented, and residents are asked to interpret imaging studies and discuss management strategies and technical aspects of surgical procedures. In addition to spine cases, one peripheral nerve case is reviewed each week.

Neurosurgery Grand Rounds: This conference is held every Friday during the months of September through June. Grand Rounds is attended by Neurosurgery faculty, residents, and interested community neurosurgeons. During the first hour, a lecture related to the neurosciences is given by medical school faculty or visiting professors (about five per year). The second hour is devoted to presentation of interesting cases by residents, followed by discussion of their management by residents and faculty. The Grand Rounds on the first Friday of each month is devoted to a discussion of morbidity and mortality occurring at our three teaching hospitals during the prior month. Only medical professionals and trainees are allowed to attend.

Neuro-Oncology Tumor Board: This is a multi-disciplinary conference of Neurosurgery, Neuro-Oncology, and Neuropathology. In the conference, brain tumor cases of the prior week are presented, imaging studies are reviewed, and management strategies are planned.

Pediatric Neurosurgery Case Conference: This conference, which takes place over lunch, is led by Dr. Jeffrey Wisoff, and Dr. David Harter of Pediatric Neurosurgery and a Neuroradiology attending. In the conference, management strategies for
patients scheduled for surgery in the upcoming week are discussed with active resident participation.

Chair’s Rounds: This conference is held every Friday except during the months of July and August. During the conference, residents present interesting and problem cases from Bellevue Hospital and the Veterans Affairs Medical Center to Neurosurgery Department Chair Dr. John Golfinos for discussion of imaging findings, management, and surgical strategies.
Didactic Resident Education

Journal Club:
Recent journal articles are presented and reviewed in depth by a resident and then discussed by faculty and housestaff. Both residents and faculty attend this late afternoon meeting over dinner. PGY 5 – residents on research delegate articles to the other residents and faculty for review and discussion. Students doing elective rotations also have opportunity to present casework or research at this meeting. For review articles, an analysis of the quality of the article should be presented critically by the resident. Faculty in attendance will judge both the quality of the choice of article, the analysis and presentation. Journal Club meets on a monthly basis.

Resident Cadaver Dissection Course– occur at least two to three times a year and cover areas of sub-specialty or anatomical interest. They are typically on Fridays, after morning conferences and run for the entire day. These courses are designed and coordinated by senior/service chief and chief residents with input from the other housestaff.

Summer lectures – occur throughout the months of July and August weekly on Fridays at 12pm. Lecture topics are chosen by faculty members and area of specialty.

Additional Educational Resources
SANS Course
Theme Text Subscription
Book and Conference Allowance
Meetings to present to Attribute
Neurosurgery Boot Camp
Woods Hole (RUNN)
iDevelop Learning Modules
Goals & Objectives – Overall

Overall Program Goals, Objectives, and Graduation Requirements

The overall goal of the residency program is to develop in our graduating residents a proficiency level appropriate for a new and independent practitioner in the six core competencies as outlined by the ACGME. We follow the standards put forth by the Neurosurgery RRC of the ACGME in the milestones project. Graduation is consistent with attainment of a Level 4 across all of these milestones. These guidelines can be seen at ACGME Milestones Project. The milestones reflect:

- Patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- Medical knowledge about the established and evolving biomedical, clinical and cognate sciences and the application of this knowledge to patient care.
- Practice based learning and improvement, which involves investigation and evaluation of patient care, the appraisal and assimilation of scientific evidence, followed by improvement in patient care.
- Interpersonal and communication skills resulting in effective information exchange with patients, their families, and other health professionals.
- Professionalism manifested through a commitment to carry out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
- Systems-based practice as manifested by actions that demonstrate an awareness of and responsiveness to the larger context in systems of healthcare and the ability to effectively mobilize system resources to provide care that is of optimum value.

Each rotation is designed with these overall goals in mind. In order to direct progress, goals and objectives have been formulated for each rotation and approved by the PEC (Program Evaluation Committee). Unique aspects of each rotation are outlined in this handbook, and the specific goals and objectives for each rotation are delineated in the appendix. Assessment tools are designed to demonstrate progress towards these objectives by directly mapping to the milestones requirements using a common format.
Goals & Objectives – By Site, Rotation AND Clinical year

Progressive Responsibility Of Residents In Each Year And In Each Rotation

Neurosurgery PGY-1 - (Residents rotate as Neurosurgery Interns)
The goal of the neurosurgery internship at New York University is to provide residents with an in-depth foundation in the principles and practice of neurosurgery and in the clinical neurosciences that are of fundamental importance to neurosurgery. Residents who have matched in Neurological Surgery in the New York University program are required to participate in a neurosurgical internship at New York University. This internship year consists of rotations under the direction of the neurological surgery-training program in neuroradiology, clinical neurosurgery and neurology. In addition, residents rotate in and gain additional experience in adult general surgery, ICU/Critical care, and trauma surgery all with major critical care experience as part of the internship experience. By the end of the internship year the PGY-1 resident should master the following:

1. Patient Care
   a. Perform and document a history and physical examination in a timely manner
   b. Generate a differential diagnosis
   c. Present synthesized and coherent clinical information to more senior members of the medical team
   d. Learn to prioritize clinical care
   e. Recognize when more senior help is needed and readily ask for assistance
   f. Interact with patients and families
   g. Become familiar and comfortable with operating room environment
   h. Learn to perform a thorough neurological exam
   i. Become competent with basic procedures/skills

2. Medical Knowledge
   a. Expand knowledge of fundamentals of neurology
      i. Specific readings
      ii. Department of Neurology didactic lecture series
   b. Expand knowledge of fundamentals of neuroradiology
      i. Specific readings
      ii. Neuroradiology lecture/conferences
   c. Expand knowledge of fundamentals of neuro-ophthalmology
      i. Specific readings
   d. Expand knowledge of fundamentals of neuropathology
      i. Specific readings
      ii. Neuropathology lecture/conferences
   e. Expand knowledge of fundamentals of neuroanatomy and neurophysiology
      i. Specific readings
ii. Case conferences
f. Expand knowledge of fundamentals of critical care
   i. Specific readings
   ii. Recognize medical emergencies
   iii. Basic ventilator management
   iv. Invasive monitoring

3. Practice-based Learning and Improvement
   a. Develop ability to learn from errors
   b. Learn to apply knowledge base to patient management

4. Interpersonal and Communication Skills
   a. Learn to be a productive member of surgical service
   b. Understand hierarchy of medical personnel and chain of command
   c. Develop good record keeping skills and habits
   d. Present complex cases succinctly
   e. Communicate effectively with patients

5. Professionalism
   a. Treat others with respect and sensitivity
   b. Accept responsibility
   c. Demonstrate reliability

6. System-based Practice
   a. Develop early awareness of need to practice in an efficient and cost-effective manner

**General Surgery Rotations (3 months)**

The general surgery rotations are under the direction of Dr. Russell Berman, Residency Program Director for the New York University Department of Surgery in close coordination with the Neurosurgical Program Director. All neurosurgery intern schedules include rotations in Trauma Critical Care, and Trauma surgery. These rotations are of great educational value to the future neurosurgeon. The general surgery rotations provide each neurosurgery resident with generous exposure to basic surgical and trauma critical care skill set. Upon completion of the general surgery block, each resident is expected to have completed the Goals and Objectives of the specific R1 general surgery rotations as follows:

**Trauma Critical Care -Rotation Goals and Objectives**

**Rotation: (R1)**
**Length: 4 weeks, two separate blocks**
**Summary:**
The main goal of this rotation is to provide the R1 Resident an organized experience to
enable him/her to acquire the basic knowledge and skills in the evaluation and management of patients in the intensive care setting.

OBJECTIVES:
The objectives of these rotations are for residents to develop knowledge and skills in:
1. The performance of a thorough and complete basic evaluation including history and physical exam in surgical critical care patients.
2. The preoperative evaluation and preparation.
3. The management of all post operative care including critical care management in high risk patients and those undergoing extensive surgical procedures requiring such care.
4. Formulation of a diagnostic and treatment plan for emergency room and inpatient consultations.
5. Introductory level operative skills.
7. Professional and compassionate communication and interactive skills with patients, colleagues and families.
8. Practice-based learning and improvement.

COMPETENCY BASED GOALS
1. Patient Care
The R1 will begin to learn to provide patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health, knowledge of acidosis/alkalosis and how to draw and interpret an arterial blood gas. At the end of the rotation, the R1 will be knowledgeable in and be able to perform:

Critical Care and Management of Shock
- Differentiate types of shock (hemorrhagic, cardiogenic, septic, neurologic) and initiate appropriate therapy
- Insert central venous and arterial catheters and obtain hemodynamic data; interpret data and initiate therapy
- Recognize clinic presentation of a pneumothorax and insert chest tube
- Recognize the indications for blood component therapy and initiate therapy
- Recognize a transfusion reaction and initiate management
- Institute measures to prevent upper GI bleeding in critically ill patients

Coagulation and Anticoagulation
- Choose the appropriate tests for diagnosis of a coagulopathy, and have a working knowledge of factor analysis
- Apply effective preventive measures for DVT and PE
- Initiate and monitor therapeutic anticoagulation and its complications
- Diagnose and manage acute deep venous thrombosis
- Acutely manage a patient with a suspected acute pulmonary embolus, and provide a differential diagnosis
Applied Cardiac Physiology

- Recognize rhythm disturbances, myocardial ischemia on EKG
- Assess, formulate a differential diagnosis and initiate therapy for hypotension
- Know and apply appropriate treatment for supraventricular tachycardia
- Treat congestive failure and acute pulmonary edema
- Manage hypertension in a surgical patient. Understand multidrug therapy and the toxic and side effects of antihypertensive drugs.

Applied Renal Physiology

- Know the pathophysiology of the development of acute renal failure; the differentiation of prerenal, renal obstructive types of renal failure; and the general concepts of prevention and treatment of ARF
- Recognize and treat simple electrolyte disturbances
- Understand appropriate fluid replacement and balance

Applied Pulmonary Physiology

- Know the manifestations – clinical and by laboratory testing – of obstructive pulmonary disease and pulmonary insufficiency, and their surgical perioperative management
- Recognize bronchoconstrictive disorders and their perioperative management

Applied Nutrition

- Learn to manage the nutritional needs of a critically ill patient
- Placement of nasogastric tube and Dobhoff feeding tube

Surgical Skills

- Develop surgical skills in CPR, CVC placement, arterial catheter placement, and chest tube placement
- Perform first assistant in bedside bronchoscopy, pulmonary lavage, and tracheotomy
- Obtain oropharyngeal control of airway, provide Ambu ventilation and perform orotracheal intubation

2. Medical Knowledge

The R1 will begin to demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, acidoses/alkalosis states and abg interpretation, as well as the application of this knowledge to patient care. At the end of the rotation, the R1 will be knowledgeable in:

- Understand and utilize basic principles of mechanical ventilation
- Recognize clinic presentation of a pneumothorax
- Recognize the indications for blood component therapy and initiate therapy
- Recognize a transfusion reaction and initiate management
- Recognize rhythm disturbances, myocardial ischemia on EKG
- Assess, formulate a differential diagnosis and initiate therapy for hypotension
- Know and apply appropriate treatment for supraventricular tachycardia
- Know the pathophysiology of the development of acute renal failure; the differentiation of prerenal, renal obstructive types of renal failure; and the general concepts of prevention and treatment of ARF
- Know the manifestations – clinical and by laboratory testing – of obstructive pulmonary disease and pulmonary insufficiency, and their surgical perioperative management
- Recognize and treat simple electrolyte disturbances
- Pathology
- Current literature

3. **Practice-Based Learning and Improvement**

   The R1 will begin to attain the ability to investigate and evaluate his/her care of patients, to appraise and assimilate scientific evidence and to continuously improve patient care. R1 residents will:

   1. Self-monitor to identify strengths and weaknesses and set goals for learning
   2. Incorporate feedback from peers, faculty, patients and ancillary staff for self-improvement
   3. Use information technology in patient care
   4. Analyze practice and implement improvements

4. **Interpersonal and Communication Skills**

   R1 residents must begin to demonstrate interpersonal and communication skills that facilitate the flow of information between patients, their families and health professionals. R1 residents will:

   1. Communicate effectively with patients and families across all socioeconomic and cultural backgrounds
   2. Communicate effectively with physicians, other health professionals and health agencies
   3. Work effectively in a health care team
   4. Act as a consultant
   5. Maintain comprehensive, timely and legible medical records

5. **Professionalism**

   The R1 resident will begin to demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles by showing:

   1. Compassion, integrity and respect to others not withstanding race, religion, age, gender or disabilities
   2. Responsiveness to patient needs that supersedes self-interest and respects the patient’s privacy and autonomy
   3. Accountability to patients, society and the profession

6. **Systems-Based Practice**

   The R1 resident must begin to demonstrate an awareness of and responsiveness to the larger context and system of health care by having the ability to call upon appropriate resources in the system to optimize health care. The resident will:
1. Work effectively in various settings and systems
2. Coordinate patient care within the health care system considering costs and risk-benefit analysis
3. Advocate for quality care within interprofessional teams to enhance safety and improve quality
4. Identify system errors and formulate solutions
5. Be familiar with ethical, socioeconomic and medical legal issues
6. Interact with social workers, at attend social work meetings to learn where patients need to go and how to get them there

**Trauma Surgery - Rotation Goals and Objectives**

Summary:
The overall goal of rotations on the Bellevue Hospital trauma service is to attain a thorough understanding of the pathophysiology of injury; to gain knowledge and experience in all phases of care of the trauma patient including resuscitation, operative judgment and technique, critical care, and rehabilitation.

**Rotation: Bellevue Hospital (R1)**
**Length: 4 weeks**

**OBJECTIVES:**
The objectives of this rotation are to for residents to develop knowledge and skills in:

1. Participate as a member of the surgical and emergency medicine team in the initial resuscitation of the injured patient and in the subsequent management of the trauma patient during the operative and post-operative phases.
2. Attain proficiency in diagnostic and therapeutic procedures.
3. Formulation of a diagnostic and treatment plan for emergency room and inpatient consultations.
4. Provide optimal patient care.
5. Professional and compassionate communication and interactive skills with patients, colleagues and families.
6. Practice-based learning and improvement.
7. Systems-based practice, particularly within the private hospital setting.

**COMPETENCY-BASED GOALS**

**Medical Knowledge**

At the completion of these rotations residents should:

1. Understand emergency airway management including endotracheal intubation, peripheral and central venous access, Swan-Ganz catheter insertion, closed tube thoracotomy, diagnostic peritoneal lavage, wound management, and performance of trauma ultrasonography (FAST).
2. Manage responsibilities such as wound care, nutritional and fluid management and chart documentation.
4. Be able to interpret radiographic findings, EKGs.
5. Learn the fundamental steps of operative management of trauma.

**Skills:**
R1 should be able to have the below specific skills at the end of this rotation:
1. Understand the principles and limitations of the ultrasound (FAST) and diagnostic peritoneal lavage.
2. Be able to initiate maneuvers to prevent hypothermia in the injured patient.
3. Perform basic wound management, simple suture repair, compression and antibiotic prophylaxis.
4. Interpret blood gases and understand the importance of base deficit.

**Patient Care**
At the completion of these rotations residents should:
1. Have an understanding of and be able to deliver compassionate care to pediatric patients.
2. Gain experience in delivering information to patients’ family members when appropriate, particular in the pediatric population.
3. Be able to use knowledge and skills learned to enhance care of patients.

**Practice-Based Learning and Improvement**
At the completion of these rotations residents should:
- Have gained insight into how to locate information relevant to a particular patient’s clinical situation and be able to apply that information to patient care.
- Have a working knowledge of how to access scientific information relevant to a particular patient and be able to assimilate that information and apply it to patient care.
- Be adept at using the available technology to access patient information.

**Interpersonal and Communication Skills**
At the completion of these rotations residents should:
- Understand the importance of effective communication to patients, ancillary staff and colleagues.
- Develop skills to communicate medical information to parents and family members of a pediatric patient.
- Develop skills to communicate with co-workers and colleagues to allow for optimum patient care.

**Professionalism**
At the completion of these rotations residents should:
- Understand the importance of a through commitment to carrying out professional responsibilities.
- Demonstrate adherence to ethical principals.
- Show sensitivity to diverse patient populations.

**System-Based Practice**
At the completion of these rotations residents should:
A. Understand the importance of working effectively in the health care delivery, particularly in the private hospital setting.
B. Understand the importance of coordination of patient care within the health care system and demonstrate a working knowledge of this.

**Neurology, Neuroradiology, Neuropathology, Neurosurgery**

The neurologic rotations are under the direction of Dr. Saran Jonas, Chief of the Neurology Service at Bellevue Hospital, Drs. Ajax George senior neuroradiologist at the New York University Division of Neuroradiology and Wendy Hotson Chief of the Neuroradiology Service at Bellevue Hospital, Dr. Zag Zag, Director of Neuropathology for the New York University Division of Neuropathology, Dr. Peter Kim Nelson, Director of Interventional Neuroradiology and Dr. Paul Huang, Chief of the Neurosurgery Service at Bellevue Hospital in close coordination with Dr. Howard Riina, Neurosurgical Program Director. These rotations provide the neurosurgery interns with an in depth exposure to basic neurological diagnosis and patient care. They gain experience with a wide range of neurological disorders, including cerebrovascular disease, neurodegenerative conditions, epilepsy, movement disorders, neuromuscular disorders, provides exposure to electroencephalography, electromyography, basics of neuropathology, and neurotrauma.

**Goals and objectives specific to the Neurology rotation include:**

Upon completion of the 2-month neurology block, each resident is expected to have completed the Goals and Objectives of the neurology rotations as follows:

1. Understanding the causal mechanisms of a wide variety of adult neurological diseases
2. Management of acute and chronic neurologic diseases
3. Comprehensive exposure to outpatient management of patients with neurological disease
4. Introduction to pediatric neurology
5. Interpretation of electroencephalograms (EEGs), electromyograms (EMGs), and nerve conduction and other electrophysiological studies
6. Interpretation of cerebrospinal fluid (CSF), LPs and serological tests for neurological conditions
7. Introduction to nerve and muscle biopsies and their interpretation in the diagnosis of complex neuropathies and myopathies
8. Refinement of neurological examination and history-taking skills
9. Acquire a basic understanding of the neuropathology that underlies neurological disease
10. Exposure to neurologic research topics

**Neuroradiology / Interventional Neuroradiology**

**Neuroradiology / Interventional Neuroradiology (1 month):**
This rotation provides an outstanding didactic experience in a field that is essential to
the practice of neurosurgery. Residents work closely with the members of the interventional neuroradiology faculty. The neurosurgery resident meets the NYU interventional neuroradiology faculty in the INR suite each morning to participate in all interventional neuroradiology procedures as they occur during the day. The resident will observe and participate in the performance of cerebral angiograms and embolization procedures with the interventional neuroradiology faculty. The resident is also required to complete assigned readings in interventional neuroradiology that will greatly enhance this experience.

**Goals and objectives Neuroradiology rotation:**

1. Understand the fundamental principles of current neuroradiological imaging techniques including MRI, CT, PET, functional MRI, MR perfusion, CT angiography, CT perfusion and digital subtraction angiography
2. Understand the appropriate, efficient, and cost effective use of imaging studies
3. Become adept in basic interpretation of neuroradiological studies including CT, MRI, MRA, CTA, MRP, CTP and digital subtraction angiography
4. Understand the role of interventional neuroradiology in diagnosis and treatment of neurological disease, including endovascular management of neurovascular problems
5. Become familiar with the relationship between imaging studies and neuropathological material

**Neuropathology**

**Neuropathology (1 month):**
This rotation provides an outstanding didactic experience in a field that is essential to the practice of neurosurgery. Residents work closely with the members of the neuropathology faculty. The neurosurgery resident meets the NYU neuropathology faculty in the reading room each morning to participate in the reading of all neuropathology specimens obtained during the previous day and as they occur during the day including preparing and reading frozen specimens. The resident will observe and participate in the interpretation of all pathologic specimen with the neuropathology faculty. The resident is also required to complete assigned readings in neuropathology and attend adult and pediatric Tumor board that will greatly enhance this experience.

**Goals and objectives Neuropathology rotation:**

A. Understand practical application of neuropathology to clinical practice
B. Understand the fundamental principles of current neuropathological staining techniques
C. Understand the appropriate, efficient, and cost effective use of pathology modalities including EM and special stains
D. Become adept in basic interpretation of neuropathological slides
E. Understand the role of neuropathology in the diagnosis, treatment and prognosis of neurological disease

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F. Become familiar with the relationship between imaging studies and neuropathological material
G. Expand knowledge of fundamentals of neuroanatomy and neurophysiology
H. Acquire a basic understanding of the neuropathology that underlies neurological disease
I. Gain exposure to neurologic research topics

**Neurosurgery**

**Neurosurgery (2 months Bellevue Hospital, 1 month Tisch Hospital):**
The three-month Neurosurgery rotation allows the new residents to become familiar with the day-to-day operation of the NYU neurosurgical service thus allowing them to gain insight into what will be required of them as they progress through the neurosurgical residency. The intern will observe and participate in the neurosurgical cases with the chief resident and the Neurosurgical faculty at both Tisch and Bellevue Hospitals. They will also be introduced to outpatient neurosurgery by attending and participating in the neurosurgery clinic at Bellevue Hospital. The PGY 2’s also cover the VA clinic occasionally. The resident is also required to attend the SNS (Society of Neurological Surgery) basic neurosurgical skills resident boot camp, complete assigned readings in neurosurgery and attend all neurosurgery didactic conferences.

**Goals and objectives of intern Neurosurgery rotation:**
- Perform and document a history and physical examination in a timely manner
- Generate a differential diagnosis
- Present synthesized and coherent clinical information to more senior members of the medical team
- Learn to prioritize clinical care
- Recognize when more senior help is needed and readily ask for assistance
- Interact with patients and families
- Become familiar and comfortable with operating room environment
- Learn to perform a thorough neurological exam
- Become familiar with neurosurgical standard of care and its scientific underpinnings
- Become competent with basic procedures/skills
  - Invasive ICP monitoring
  - Shunt Taps
  - Lumbar Punctures
- Recognize neurosurgical emergencies

**Neurosurgery PGY-2 - (Residents rotate as Junior Residents at Bellevue Hospital Center)**
- Neurosurgery R1 residents must have successfully completed an accredited Neurosurgery internship at NYU in accordance with Neurosurgery RRC guidelines. They must demonstrate competence in all of the general medical and surgical principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism at each stage throughout the training program. They
must also demonstrate knowledge of policies pertaining to patient rights, HIPPA, appropriate use of restraints and seclusion, recognizing fatigue, recognizing physician impairment, and those pertaining to patient safety, all in accordance with Bellevue Hospital Center policy and similar policies at Tisch Hospital, including completion of corresponding modules in the idevelop system. The residency program provides graduated levels of responsibility in patient evaluation, neurological disease management and neurological surgery, as residents rotate through the various neurosurgical services at the medical center. Junior level residents work directly with the Neurosurgical Faculty and chief residents at Bellevue Hospital Center and Tisch Hospitals neurosurgical trauma and elective services. During these rotations the residents assume more and more direct responsibility and surgical opportunities in the care of patients. Surgical techniques are learned and standards of care adopted. By the end of the PGY 2 Neurosurgery year the resident should master the following:

PATIENT CARE:
- The residents will learn how to take a neurological history, perform a neurological examination and derive a differential diagnosis
- Residents will learn to rapidly identify potential surgical risks preoperatively and learn methods to minimize those risks.
- With appropriate supervision, residents will learn to competently perform the following procedures:

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<tr>
<th>Procedures</th>
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<tbody>
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<td>History</td>
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<tr>
<td>Physical</td>
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<tr>
<td>Neurological Examination</td>
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<tr>
<td>Insertion nasogastric tube</td>
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<tr>
<td>Lumbar puncture</td>
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<tr>
<td>Arterial puncture</td>
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<tr>
<td>Insertion IV lines</td>
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<tr>
<td>Removal of sutures</td>
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<tr>
<td>Insertion of Foley catheter</td>
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<tr>
<td>EKG</td>
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<tr>
<td>Incision/drainage of superficial abscess</td>
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<tr>
<td>Suturing of lacerations</td>
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<tr>
<td>Wound debridement</td>
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<tr>
<td>Dressing changes</td>
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<tr>
<td>Insertion central venous catheter</td>
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<tr>
<td>Insertion Swan-Ganz</td>
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<tr>
<td>Emergency tracheotomy</td>
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<tr>
<td>Aspirate shunt reservoir</td>
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<tr>
<td>Insertion lumbar subarachnoid catheter</td>
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<tr>
<td>Twist drill craniotomy for ICP monitor</td>
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<tr>
<td>Burr hole for trauma</td>
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<tr>
<td>Burr hole/twist drill ventriculostomy</td>
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<tr>
<td>Twist drill for SEPS drainage of subdural hematomas</td>
</tr>
<tr>
<td>Application/insertion cervical traction</td>
</tr>
</tbody>
</table>
Suture simple laceration scalp/back
Suture complex laceration scalp/back
Opening and closure craniotomy incisions
Externalize shunts

MEDICAL KNOWLEDGE:
- The residents will learn the neurodiagnostic studies available for the evaluation of patients. They will learn the importance of correlative neuroanatomy in interpreting these studies.
- The residents will learn:
  - The anatomy of the brain, spine, peripheral nerves and the bony coverings of each.
  - The physiology of normal brain and normal vasculature.
- The residents will develop competence in the interpretation of neurodiagnostic examinations in disease states. These include: conventional radiographs, cranial and spinal computed tomography, cranial and spinal magnetic resonance imaging, MR angiography, CT angiography and venograms, cerebral and spinal angiography.
- They will learn critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology. They will discuss:
  - The definition of mild, moderate, and severe brain injury and identify the individual components and scores of the Glasgow Coma Scale and Glasgow Outcome Scale.
  - The clinical and radiologic pathways for clearance of the spine
  - The difference between complete and incomplete spinal injury and demonstrate the ability to accurately complete detailed ASIA grading and category assignment, and the prognosis of neurologic recovery for each.
  - The major patterns of spinal injury (complete, central cord, Brown-Sequard, cauda equina, etc). What mechanisms of injury and spinal column injury are most commonly associated with each? What is the prognosis for recovery for each?
  - The pathophysiology of craniocervical injuries in adults.
  - The pathophysiology of sub-axial spinal column and spinal cord injuries in adults.
  - Fundamental management of patients with head injuries, including intracranial pressure (ICP) monitoring
  - Stabilization and management of trauma to the spine, and spinal cord injury
  - Fundamental ICU care, particularly for multisystem-injured patients
  - Fundamental ER care of acute neurological injuries, including blunt and penetrating injuries and subarachnoid hemorrhage
  - Outpatient management of new and follow-up patients
  - Exposure to pediatric neurosurgical management while on call
- Residents will discuss the indications and potential complications for all neurosurgical procedures. This will be acquired from discussions with faculty, by participating in conferences and by reading textbooks and the corresponding literature. These skills will be evaluated in didactic case conferences, in resident evaluations and in the milestone committee meetings.
• They will learn how to write appropriate admission and medication orders for ward, ICU, and post-operative patients.
• They will discuss specific JCAHO hospital safety regulations.
• They will discuss the importance of timely and accurate medical record keeping including medication reconciliation.
• Knowledge of general medicine and surgical principles as well as the pathophysiology of neurosurgical diseases will be acquired with experience, reading and observation of the practice habits of senior neurosurgeons and nonsurgical consultants, and in didactic case conferences.

**INTERPERSONAL COMMUNICATION SKILLS:**
• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
• They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
• They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.
• They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.
• They will also learn to present in weekly didactic case conferences and at Journal Club.

**SYSTEMS BASED PRACTICE:**
• Residents will learn that patient care is a team effort where each member of the team is equally important in attaining satisfactory patient outcomes. The team includes all members of the healthcare delivery system including: floor nurses, nurse practitioners, operating room personnel, social workers, case managers, rehabilitation specialists, consultants and house staff from other services, other neurosurgical residents and medical students and consultant neurosurgeons.
• They will learn to coordinate and manage communication between services on co-managed patients.
• They will interact and coordinate the longitudinal care of neurosurgical patients through discussions with Neurosurgical NP’s, Physician Assistants, Psychiatrists, Physical Therapists, Social Workers, and Discharge Planning nurses.
• They will discuss the regulatory issues involved in reporting brain death and non-accidental neurologic injury (especially in the pediatric population).

**PRACTICE-BASED LEARNING:**
• The resident will learn to analyze his or her own practice for needed improvements.
• They will also learn to use evidence from scientific studies to guide their medical decision-making.
• They will discuss the application of research and statistical methods.
• They will participate in clinical research projects, where appropriate, including participating in the IRB and consent process.
• Residents will attend the Wood’s Hole Neurosurgical Research Course.

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, and with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to the team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-interest.
  o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

METHODS OF EVALUATION:
• Resident fund of medical knowledge will be evaluated annually beginning in the PGY 2 year by sitting for the written portion of the ABNS primary examination.
  o They are required to obtain a passing grade on this examination prior to completing their PGY 6 year of residency training, and prior to becoming chief resident.
  o They are also expected to improve their percentile performance on the ABNS primary examination each year.
• Resident will also attend weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
• The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
• The Neurosurgery Attending Staff reviews Resident Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
• Residents are required to publish 2 articles each year. This can be in the form of a peer reviewed article, a book chapter, peer review basic science research paper or published editorial.
• The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a biannual basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation and during milestone evaluation meetings. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal and written feedback to the residents on a biannual basis.
• Residents are promoted each year based on demonstration of competent performance of all milestone requirements as outlined above.

Neurosurgery PGY-2 - (Residents rotate as Junior Residents on Tisch teams 1 & 2)
• Neurosurgery PGY-2 residents must have successfully completed an accredited PGY-1 year neurosurgical internship. They must demonstrate competence in all of the general medical and surgical principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism at each stage throughout the training program. They must also demonstrate knowledge of patient rights, including HIPPA and the appropriate use of restraints and seclusion. Resident physicians are permitted to conduct face-to-face evaluation of patients in restraints or seclusion and to order patient restraints and seclusion in accordance with New York University Hospitals Center Policy on Restraints and Seclusion. The residency program provides graduated levels of responsibility in patient evaluation, management and surgery as residents rotate through the various neurosurgical services in the medical center. Junior and intermediate level residents work with master neurosurgeons on two distinct adult services at Tisch Hospital: (Tumor/Vascular/Skull Base/Functional/Epilepsy Service) (Spinal/Peripheral Services). They also rotate through the Pediatric/Pediatric Epilepsy services at Tisch Hospital. During these rotations the residents assume more and more direct responsibility and surgical opportunities in the care patients. Surgical techniques are learned and standards of care adopted. In
addition to mastering the procedures outlined below, by the end of the PGY 2 Neurosurgery year the resident should be able to master the following:

PATIENT CARE:
- The residents will learn how to take a neurological history, perform a neurological examination and derive a differential diagnosis
- Residents will learn to rapidly identify potential surgical risks preoperatively and discuss methods to minimize those risks.
- With appropriate supervision, residents will learn to competently perform the following procedures:

  **Procedures**
  - History
  - Physical
  - Neurological Examination
  - Insertion nasogastric tube
  - Lumbar puncture
  - Arterial puncture
  - Insertion IV lines
  - Removal of sutures
  - Insertion of Foley catheter
  - EKG
  - Incision/drainage of superficial abscess
  - Suturing of lacerations
  - Wound debridement
  - Dressing changes
  - Insertion central venous catheter
  - Insertion Swan-Ganz
  - Emergency tracheotomy
  - Aspirate shunt reservoir
  - Insertion lumbar subarachnoid catheter
  - Twist drill craniostomy for ICP monitor
  - Burr hole for trauma
  - Burr hole/twist drill ventriculostomy
  - Twist drill for SEPS drainage of subdural hematomas
  - Application/insertion cervical traction
  - Suture simple laceration scalp/back
  - Suture complex laceration scalp/back
  - Open and closure craniotomy incisions
  - Externalize shunts

MEDICAL KNOWLEDGE:
- The residents will learn neurodiagnostic studies available for the evaluation of patients. They will learn the importance of correlative neuroanatomy in interpreting these studies
- The residents will discuss:
  - The anatomy of the brain, spine, peripheral nerves and the bony coverings of each.
The physiology of normal brain and normal vasculature.

• The residents will develop competence in the interpretation of neurodiagnostic examinations in disease states. These include: conventional radiographs, carotid ultrasonography, cranial and spinal computed tomography, cranial and spinal magnetic resonance imaging, MR angiography, CT angiography and venograms, cerebral and spinal angiography.

• They will learn critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology. They will discuss:
  o The definition of mild, moderate, and severe brain injury and identify the individual components and scores of the Glasgow Coma Scale and Glasgow Outcome Scale.
  o The clinical and radiologic pathways for clearance of the spine
  o The difference between complete and incomplete spinal injury and demonstrate the ability to accurately complete detailed ASIA grading and category assignment, and the prognosis of neurologic recovery for each.
  o The major patterns of spinal injury (complete, central cord, Brown-Sequard, cauda equina, etc). What mechanisms of injury and spinal column injury are most commonly associated with each? What is the prognosis for recovery for each?
  o The pathophysiology of craniocervical injuries in adults.
  o The pathophysiology of sub-axial spinal column and spinal cord injuries in adults.

• Residents will discuss the indications and potential complications for all neurosurgical procedures. This will be acquired from discussions with faculty and by reading textbooks and the literature. It will also be evaluated in didactic case conferences.

• They will learn how to write appropriate admission and medication orders for ward, ICU, and post-operative patients.

• They will discuss specific JCAHO hospital safety regulations.

• They will learn the importance of timely and accurate medical record keeping including medication reconciliation.

• Knowledge of general medicine and surgical principles as well as the pathophysiology of neurosurgical diseases will be acquired with experience, reading and observation of the practice habits of senior neurosurgeons and nonsurgical consultants, and in didactic case conferences.

INTERPERSONAL COMMUNICATION SKILLS:

• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

• They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
• They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.
• They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.
• They will also learn to present in weekly didactic case conferences and at Journal Club.

SYSTEMS BASED PRACTICE:
• Residents will learn that patient care is a team effort where each member of the team is equally important in attaining satisfactory patient outcomes. The team includes all members of the healthcare delivery system including: floor nurses, nurse practitioners, operating room personnel, social workers, case managers, rehabilitation specialists, consultants and house staff from other services, other neurosurgical residents and medical students and consultant neurosurgeons.
• They will learn to coordinate and manage communication between services on co-managed patients.
• They will interact and coordinate the longitudinal care of neurosurgical patients through discussions with Neurosurgical NP’s, Psychiatrists, Physical Therapists, Social Workers, and Discharge Planning nurses.
• They will discuss the regulatory issues involved in reporting brain death and non-accidental neurologic injury (especially in the pediatric population).

PRACTICE-BASED LEARNING:
• The resident will learn to analyze his or her own practice for needed improvements.
• They will also learn to use evidence from scientific studies to guide their medical decision-making.
• They will discuss the application of research and statistical methods.
• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
• Residents will attend the Wood’s Hole Neurosurgical Research Course.

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel. Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Participate in discussion of ethical dilemmas related to care delivery,
consent, and life support in severely injured patients.

- Provide consultation to the ED (emergency department) and other services in timely fashion.
- Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
- Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
- Appear for duty appropriately rested and fit to provide the services required by their patients.
- Accurately self-report fatigue in situations that may compromise safety and/or patient care.
- Must be committed to and responsible for promoting patient safety.
- Must demonstrate responsiveness to patient needs that supersedes self-interest.
- Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

METHODS OF EVALUATION:

- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  - Residents are required to obtain a passing grade on this examination prior to completing their PGY 6 year of residency training and prior to becoming chief resident.
  - They are also expected to improve their percentile performance on the ABNS primary examination each year.
- Resident will also attend weekly didactic conferences and the monthly Journal Club.
- Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
- The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
- The Neurosurgery Attending Staff reviews Resident Medical Documentation.
- Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
- The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
- Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program
Director review these evaluations and give verbal feedback to the residents on a quarterly basis.

- Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

**Neurosurgery PGY-2 - (Residents rotate as Junior Residents at New York Harbor Health Care System)**

- Neurosurgery PGY2 residents must have successfully completed an accredited neurosurgery internship. They must demonstrate competence in all of the general medical and surgical principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism at each stage throughout the training program. They must also demonstrate knowledge of patient rights, including HIPPA and the appropriate use of restraints and seclusion. Resident physicians are permitted to conduct face-to-face evaluation of patients in restraints or seclusion and to order patient restraints and seclusion in accordance with Manhattan VA Hospitals Center Policy on Restraints and Seclusion. The residency program provides graduated levels of responsibility in patient evaluation, management and surgery as residents rotate through the various neurosurgical services in the medical center. Junior, intermediate level and senior residents work with attending neurosurgeons at the Neurosurgical Service at the Manhattan VA Medical Center. During these rotations the residents assume more and more direct responsibility and surgical opportunities in the care patients. Surgical techniques are learned and standards of care adopted. In addition to mastering the procedures outlined below, by the end of the PGY 2 Neurosurgery year the resident should be able to master the following:

**PATIENT CARE:**

- The residents will learn how to take a neurological history, perform a neurological examination and derive a differential diagnosis
- Residents will learn to rapidly identify potential surgical risks preoperatively and discuss methods to minimize those risks.
- With appropriate supervision, residents will learn to competently perform the following procedures:

  **Procedures**
  - History
  - Physical
  - Neurological Examination
  - Insertion nasogastric tube
  - Lumbar puncture
  - Arterial puncture
  - Insertion IV lines
  - Removal of sutures
  - Insertion of Foley catheter
  - EKG
  - Incision/drainage of superficial abscess
  - Suturing of lacerations
  - Wound debridement
Dressing changes
Insertion central venous catheter
Insertion Swan-Ganz
Emergency tracheotomy
Aspirate shunt reservoir
Insertion lumbar subarachnoid catheter
Twist drill craniotomy for ICP monitor
Twist drill for SEPS drainage of subdural hematomas
Burr hole for trauma
Burr hole/twist drill ventriculostomy
Application/insertion cervical traction
Suture simple laceration scalp/back
Suture complex laceration scalp/back
Open and closure craniotomy incisions
Externalize shunts

MEDICAL KNOWLEDGE:

• The residents will learn the neurodiagnostic studies available for the evaluation of patients. They will discuss the importance of correlative neuroanatomy in interpreting these studies.

• The residents will discuss:
  o The anatomy of the brain, spine, peripheral nerves and the bony coverings of each.
  o The physiology of normal brain and normal vasculature.

• The residents will develop competence in the interpretation of neurodiagnostic examinations in disease states. These include: conventional radiographs, carotid ultrasonography, cranial and spinal computed tomography, cranial and spinal magnetic resonance imaging, MR angiography, CT angiography and venograms, cerebral and spinal angiography.

• They will learn critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology. They will learn:
  o The definition of mild, moderate, and severe brain injury and identify the individual components and scores of the Glasgow Coma Scale and Glasgow Outcome Scale.
  o The clinical and radiologic pathways for clearance of the spine
  o The difference between complete and incomplete spinal injury and demonstrate the ability to accurately complete detailed ASIA grading and category assignment, and the prognosis of neurologic recovery for each.
  o The major patterns of spinal injury (complete, central cord, Brown-Sequard, cauda equina, etc). What mechanisms of injury and spinal column injury are most commonly associated with each? What is the prognosis for recovery for each?
  o The pathophysiology of craniocervical injuries in adults.
  o The pathophysiology of sub-axial spinal column and spinal cord injuries in adults.
Residents will discuss the indications and potential complications for all neurosurgical procedures. This will be acquired from discussions with faculty and by reading textbooks and the literature. It will also be evaluated in didactic case conferences.

They will learn how to write appropriate admission and medication orders for ward, ICU, and post-operative patients.

They will discuss specific JCAHO hospital safety regulations.

They will learn the importance of timely and accurate medical record keeping including medication reconciliation.

Knowledge of general medicine and surgical principles as well as the pathophysiology of neurosurgical diseases will be acquired with experience, reading and observation of the practice habits of senior neurosurgeons and nonsurgical consultants, and in didactic case conferences.

INTERPERSONAL COMMUNICATION SKILLS:

They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.

They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.

They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.

They will also learn to present in weekly didactic case conferences and at Journal Club.

SYSTEMS BASED PRACTICE:

Residents will learn that patient care is a team effort where each member of the team is equally important in attaining satisfactory patient outcomes. The team includes floor nurses, nurse practitioners, operating room personnel, social workers, rehabilitation specialists, consultants and house staff from other services, other neurosurgical residents and medical students and consultant neurosurgeons.

They will learn to coordinate and manage communication between services on co-managed patients.

They will interact and coordinate the longitudinal care of neurosurgical patients through discussions with Neurosurgical NP’s, Psychiatrists, Physical Therapists, Social Workers, and discharge planning nurses.

They will learn the regulatory issues involved in reporting brain death and non-accidental neurologic injury (especially in the pediatric population).

PRACTICE-BASED LEARNING:
• The resident will learn to analyze his or her own practice for needed improvements.
• They will also learn to use evidence from scientific studies to guide their medical decision making.
• They will learn the application of research and statistical methods.
• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
• Residents will attend the Wood’s Hole Neurosurgical Research Course

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patients.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds, patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-interest.
  o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

METHODS OF EVALUATION:
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  o They are required to obtain a passing grade on this examination prior to completing their residency training and becoming chief resident (PGY 7).
They are also expected to improve their percentile performance on the ABNS primary examination each year.

- Resident will also attend weekly didactic conferences and the monthly Journal Club.
- Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
- The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
- The Neurosurgery Attending Staff reviews Resident Medical Documentation.
- Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
- The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
- Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
- Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

Neurosurgery PGY3 - (Residents rotate as Intermediate level Junior Residents on Tisch Teams 1 & 2)

Neurosurgery PGY3 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism, as well as, in all procedures required of a Neurosurgery PGY2 resident prior to progressing to the Neurosurgery PGY3 year. During this year, the resident’s clinical responsibility increases. The resident will become adept with neurosurgical instruments, operating microscope, navigation systems, and patient positioning. An attending physician supervises all Operating Room procedures performed by residents.

PATIENT CARE:

- Residents will learn important details such as patient positioning and optimal surgical approaches for each procedure. This will be learned from experienced supervising senior neurosurgery house staff and the Neurosurgical faculty.
- They will learn the technical aspects of the operations and will be evaluated by supervising senior neurosurgical house staff and attending staff in the operative theater.
- They are responsible for the basic function of the Neurosurgery services and urgent daytime neurosurgery consultations in the Hospital and in the Emergency Department.
- They must demonstrate with the appropriate supervision the ability to recognize and treat neurosurgical emergencies:
They will learn to obtain and evaluate proper diagnostic radiological studies.

MEDICAL KNOWLEDGE:

- Residents will learn the necessary elements for a good surgical outcome: proper patient selection, identification and preoperative stabilization of other disease processes which can cause problems in the postoperative period such as hypertension, cardiovascular disease, pulmonary insufficiency, diabetes, alcoholism, clotting disorders, renal insufficiency, atherosclerosis and endocrinologic dysfunction.
- The residents will be taught to identify and manage emergency situations: epidural hematoma, cerebral herniation, postoperative hematoma, traumatic spinal cord injury, obstructive hydrocephalus, cerebral ischemia, spinal cord compression, status epilepticus and others. They will also learn the preoperative selection of endovascular neurosurgery candidates as well as the preoperative counseling, preoperative and postoperative care of endovascular neurosurgery patients.
- They learn this through extensive clinical exposure and didactic question and answer sessions in the multiple conferences offered throughout the academic year.
- With appropriate supervision, residents will learn to competently perform the following procedures:

**Procedures**

All Neurosurgery PGY2 procedures
- Incision, burr holes and removal of bone flap for craniotomy
- Incision, burr holes and removal of bone flap for sub-occipital craniotomy
- Ventriculo-peritoneal shunt
- Ventriculo-pleural shunt
- Ventriculo-atrial shunt
- Closure laminectomy wounds
- Closure anterior cervical fusion wounds
- Laminectomy for lumbar disc
- Lumbar laminectomy for stenosis
- CSF shunt lumbar
- Carpal tunnel release
- Ulnar nerve release
- Lumbar pedicle screw placement
- Lateral mass screw placement
- Fundamental cerebral and spinal angiography
INTERPERSONAL and COMMUNICATION SKILLS:

- They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
- They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
- They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
- They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.
- They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.
- They will also learn to present in weekly didactic case conferences and at Journal Club.

SYSTEMS-BASED PRACTICE:

- In addition to skills mastered in the PGY2 year, trainees will learn what the delivery of health care costs (daily hospitalization costs, the costs of imaging procedures and laboratory tests, surgical fees, anesthesia charges, etc.).
- They will be taught to practice cost-effective medicine without sacrificing good clinical outcomes.
- The resident will discuss JACHO patient safety standards regarding patient identification, medication order writing, surgical site preparation (including hair removal), peri-operative antibiotic administration, the pre-operative time out site and operative identification procedure, and peri-operative DVT prophylaxis algorithm.
- They will learn effective interaction with the peri-operative nursing and anesthesia personnel in delivering appropriate operative patient care including:
  - Site identification, confirmation and preparation (as above).
  - Communication of need for modification of anesthetic technique (i.e. neurophysiologic monitoring).
  - Availability of cell saver / blood products.
  - Alert nursing staff of potential for frozen section.
  - Review and correction of peri-operative risk factors and co-morbidities prior to starting procedure (i.e. Alerting electrophysiology of need to interrogate pacemaker or place a magnet).

PRACTICE-BASED LEARNING:

- Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.
- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to
obtain a passing grade on this examination prior to completing their residency training and becoming chief resident (PGY7).

- They will participate in clinical research projects where appropriate including participating in the IRB and consent process.

**PROFESSIONALISM:**

- Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, and with nurses and paramedical personnel.
- Residents will learn how to deal with patients and families in a compassionate and humanistic way.
- Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
- Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
- Demonstrate honesty in all professional interactions.
- Residents will maintain timely and accurate medical records.
- Residents will also:
  - Attend all required conferences in a timely fashion.
  - Pre-round on ICU patients and present timely, accurate data to neurosurgery team.
  - Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  - Provide consultation to the ED and other services in timely fashion.
  - Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  - Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  - Appear for duty appropriately rested and fit to provide the services required by their patients.
  - Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  - Must be committed to and responsible for promoting patient safety.
  - Must demonstrate responsiveness to patient needs that supersedes self-interest.
  - Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

**METHOD OF EVALUATION:**

- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  - They are required to obtain a passing grade on this examination prior to completing their residency training.
  - They are also expected to improve their percentile performance on the ABNS primary examination each year.
• Resident will also attend weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
• The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
• The Neurosurgery Attending Staff reviews Resident Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed
• The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
• Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

Neurosurgery PGY3 - (Residents rotate as Intermediate level Junior Residents at Bellevue Hospital Center)

Neurosurgery PGY3 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY2 resident prior to progressing to the Neurosurgery PGY3 year. During this year, the residents’ clinical responsibility increases. The resident will become adept with neurosurgical instruments, operating microscope, navigation systems, and patient positioning. An attending physician supervises all Operating Room procedures performed by residents. In addition to mastering the procedures outlined below, the Neurosurgery PGY3 resident must master:

PATIENT CARE:
• Residents will discuss important details such as patient positioning and optimal surgical approaches for each procedure. This will be learned from experienced supervising senior neurosurgery house staff and the Neurosurgical faculty.
• They will learn the technical aspects of the operations and will be evaluated by supervising senior neurosurgical house staff and attending staff in the operative theater.
• They are responsible for the basic function of the Neurosurgery services and urgent daytime neurosurgery consultations in the Hospital and in the Emergency Department.
They must demonstrate with the appropriate supervision the ability to recognize and treat neurosurgical emergencies:

- Status epilepticus
- Unstable spine and spinal cord injury
- Acute shunt malfunction
- Cerebral Herniation / Increased intracranial pressure
- Acute intracranial hemorrhage
- CNS infection
- Sub-arachnoid hemorrhage / Vasospasm
- Metabolic Disorders / intoxication / withdrawal (EtOH and Narcotic)

They will learn to obtain and evaluate proper diagnostic radiological studies.

**MEDICAL KNOWLEDGE:**

- Residents will learn the necessary elements for a good surgical outcome: proper patient selection, identification and preoperative stabilization of other disease processes which can cause problems in the postoperative period such as hypertension, cardiovascular disease, pulmonary insufficiency, diabetes, alcoholism, clotting disorders, renal insufficiency, atherosclerosis and endocrinologic dysfunction.

- The residents will be taught to identify and manage emergency situations: epidural hematoma, cerebral herniation, postoperative clot, traumatic spinal cord injury, obstructive hydrocephalus, cerebral ischemia, spinal cord compression, status epilepticus and others. They learn this through extensive clinical exposure and didactic question and answer sessions in the multiple conferences offered throughout the academic year.

- With appropriate supervision, residents will learn to competently perform the following procedures:

  **Procedures**
  - All Neurosurgery PGY2 procedures
  - Incision, burr holes and removal of bone flap for craniotomy
  - Incision, burr holes and removal of bone flap for sub-occipital craniotomy
  - Ventriculo-peritoneal shunt
  - Ventriculo-pleural shunt
  - Ventriculo-atrial shunt
  - Closure laminectomy wounds
  - Closure anterior cervical fusion wounds
  - Laminectomy for lumbar disc
  - Lumbar laminectomy for stenosis
  - CSF shunt lumbar
  - Carpal tunnel release
  - Ulnar nerve release
  - Lumbar pedicle screw placement
  - Lateral mass screw placement

**INTERPERSONAL and COMMUNICATION SKILLS:**
• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
• They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
• They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.
• They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.
• They will also learn to present in weekly didactic case conferences and at Journal Club

SYSTEMS-BASED PRACTICE:
• In addition to skills mastered in the PGY3 year, trainees will learn what the delivery of health care costs (daily hospitalization costs, the costs of imaging procedures and laboratory tests, surgical fees, anesthesia charges, etc.).
• They will be taught to practice cost-effective medicine without sacrificing good clinical outcomes.
• The resident will discuss JACHO patient safety standards regarding patient identification, medication order writing, surgical site preparation (including hair removal), peri-operative antibiotic administration, the pre-operative time out site and operative identification procedure, and peri-operative DVT prophylaxis algorithm.
• They will learn effective interaction with the peri-operative nursing and anesthesia personnel in delivering appropriate operative patient care including:
  o Site identification and preparation (as above).
  o Communication of need for modification of anesthetic technique (i.e. neurophysiologic monitoring).
  o Availability of cell saver / blood products.
  o Alert nursing staff of potential for frozen section.
  o Review and correction of peri-operative risk factors and co-morbidities prior to starting procedure (i.e. Alerting electrophysiology of need to interrogate pacemaker or place a magnet).

PRACTICE-BASED LEARNING:
• Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to
obtain a passing grade on this examination prior to completing their residency training.
• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, and with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-interest.
  o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

METHOD OF EVALUATION:
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  o They are required to obtain a passing grade on this examination prior to completing their residency training.
  o They are also expected to improve their percentile performance on the ABNS primary examination each year.
• Resident will also attend weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
• The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
• The Neurosurgery Attending Staff reviews Resident Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
• The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
• Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

**Neurosurgery PGY3 - (Residents rotate as Intermediate level Junior Residents at New York Harbor Health Care System (VA))**

Neurosurgery PGY3 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY2 resident prior to progressing to the Neurosurgery PGY3 year. During this year, the residents clinical responsibility increases. The resident will become adept with neurosurgical instruments, operating microscope, navigation systems, and patient positioning. An attending physician supervises all Operating Room procedures performed by residents. In addition to mastering the procedures outlined below, the Neurosurgery PGY3 resident must master:

**PATIENT CARE:**

• Residents will learn important details such as patient positioning and optimal surgical approaches for each procedure. This will be learned from experienced supervising senior neurosurgery house staff and the Neurosurgical faculty.
• They will learn the technical aspects of the operations and will be evaluated by supervising senior neurosurgical house staff and attending staff in the operative theater.
• They are responsible for the basic function of the Neurosurgery services and urgent daytime neurosurgery consultations in the Hospital and in the Emergency Department.
• They must demonstrate with the appropriate supervision the ability to recognize and treat neurosurgical emergencies:
  o Status epilepticus
  o Unstable spine and spinal cord injury
- Acute shunt malfunction
- Cerebral Herniation / Increased intracranial pressure
- Acute intracranial hemorrhage
- CNS infection
- Sub-arachnoid hemorrhage / Vasospasm
- Metabolic Disorders / intoxication / withdrawal (EtOH and Narcotic)
- They will learn to obtain and evaluate proper diagnostic radiological studies.

**MEDICAL KNOWLEDGE:**

- Residents will learn the necessary elements for a good surgical outcome: proper patient selection, identification and preoperative stabilization of other disease processes which can cause problems in the postoperative period such as hypertension, cardiovascular disease, pulmonary insufficiency, diabetes, alcoholism, clotting disorders, renal insufficiency, atherosclerosis and endocrinologic dysfunction.
- The residents will be taught to identify and manage emergency situations: epidural hematoma, cerebral herniation, postoperative clot, traumatic spinal cord injury, obstructive hydrocephalus, cerebral ischemia, spinal cord compression, status epilepticus and others. They learn this through extensive clinical exposure and didactic question and answer sessions in the multiple conferences offered throughout the academic year.
- With appropriate supervision, residents will learn to competently perform the following procedures:

**Procedures**

- All Neurosurgery PGY2 procedures
- Incision, burr holes and removal of bone flap for craniotomy
- Incision, burr holes and removal of bone flap for sub-occipital craniotomy
- Ventriculo-peritoneal shunt
- Ventriculo-pleural shunt
- Ventriculo-atrial shunt
- Closure laminectomy wounds
- Closure anterior cervical fusion wounds
- Laminctomy for lumbar disc
- Lumbar laminctomy for stenosis
- CSF shunt lumbar
- Carpal tunnel release
- Ulnar nerve release
- Lumbar pedicle screw placement
- Lateral mass screw placement

**INTERPERSONAL and COMMUNICATION SKILLS:**

- They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.
- They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge
of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

- They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
- They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.
- They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.
- They will also learn to present in weekly didactic case conferences and at Journal Club

SYSTEMS-BASED PRACTICE:

- In addition to skills mastered in the R1 year, trainees will learn what the delivery of health care costs (daily hospitalization costs, the costs of imaging procedures and laboratory tests, surgical fees, anesthesia charges, etc.).
- They will be taught to practice cost-effective medicine without sacrificing good clinical outcomes.
- The resident will discuss JACHO patient safety standards regarding patient identification, medication order writing, surgical site preparation (including hair removal), peri-operative antibiotic administration, the pre-operative time out site and operative identification procedure, and peri-operative DVT prophylaxis algorithm.
- They will learn effective interaction with the peri-operative nursing and anesthesia personnel in delivering appropriate operative patient care including:
  o Site identification and preparation (as above).
  o Communication of need for modification of anesthetic technique (i.e. neurophysiologic monitoring).
  o Availability of cell saver / blood products.
  o Alert nursing staff of potential for frozen section.
  o Review and correction of peri-operative risk factors and co-morbidities prior to starting procedure (i.e. Alerting electrophysiology of need to interrogate pacemaker or place a magnet).

PRACTICE-BASED LEARNING:

- Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal "Journal Clubs", in conferences and in day-to-day discussions with faculty members.
- Residents will attend the Chicago Neurosurgical Review Course.
- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to obtain a passing grade on this examination prior to completing their residency training.
- They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, and with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-interest.
  o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

METHOD OF EVALUATION:
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  o They are required to obtain a passing grade on this examination prior to completing their residency training.
  o They are also expected to improve their percentile performance on the ABNS primary examination each year.
• Resident will also attend weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
• The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
The Neurosurgery Attending Staff reviews Resident Medical Documentation.

- Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
- The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
- Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
- Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

Neurosurgery PGY 4 - (Residents rotate as Senior Residents on Pediatric Neurosurgery and Epilepsy/Functional Neurosurgery)

Neurosurgery PGY4 residents must demonstrate competence in all the competency based principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY3 resident prior to progressing to the Neurosurgery PGY4 year. An attending physician supervises all Operating Room procedures performed by residents and supervises all patient contact. In addition to mastering the procedures outlined below, the Neurosurgery PGY4 resident must master:

**PEDIATRICS**

**PATIENT CARE PEDIATRICS:**

- Perform all of the diagnostic, procedural and communicative skills and competency-based requirements outlined in the previous years, and apply those to the pediatric and the functional/epilepsy patient population.
- With appropriate supervision, residents will learn to competently perform the following procedures in the pediatric patient population:

**Pediatric Neurosurgical Procedures**

- Incision, burr holes and removal of bone flap for craniotomy
- Incision, burr holes and removal of bone flap for sub-occipital craniotomy
- Ventriculo-peritoneal shunt
- Ventriculo-pleural shunt
- Ventriculo-atrial shunt
- Closure laminectomy wounds
- Laminectomy for lumbar disc
- Craniotomy for trauma
- Craniotomy for craniofacial repair
- Cranioplasty
- Ventriculooendoscopic procedures and equipment – fiberoptic and rod lens scopes and cameras, endoscopic third ventriculostomy, tumor biopsy and resection, cyst fenestration
Laminectomy lumbar
Laminectomy thoracic/cervical
Peripheral nerve repair/decompression
Craniotomy/microsurgical technique for tumor
Craniotomy/microsurgical technique for vascular lesion

Demonstrate the ability to position, prepare and drape pediatric patients, including infants, for insertion of CNS implanted devices (including CSF shunt)

Demonstrate appropriate placement of cranial immobilization devices, including Mayfield and Sugita pins, in young children

Considerations for wound closure in pediatric patients, suture material and cranial plating options.

Collect, edit and present high quality intraoperative photographs and video for use in conferences and publication.

MEDICAL KNOWLEDGE PEDIATRICS:

- Discuss the embryology of congenital CNS malformation.
- Demonstrate the proper performance of a complete and a targeted neurological examination in different age groups and circumstances:
  - Infant
  - Child
  - Adolescent
  - Developmentally delayed patient.
- Demonstrate the ability to obtain and evaluate proper radiological studies in children:
  - MRI brain and spine
  - Cine MRI CSF flow study
  - MRA/MRV
  - CT brain and spine
  - 3D CT skull for synostosis
  - CSF shunt and baclofen pump x-ray series
  - VNS x-ray series
  - Nuclear Medicine Shunt Patency study
- Demonstrate ability to recognize, understand and manage, with supervision, neurosurgical emergencies in children:
  - Status epilepticus (this is managed by neurology)
  - Cerebral herniation
  - CNS infection
  - Unstable spine
  - Severe CNS metabolic abnormality
  - Severe CSF shunt malfunction.
- Demonstrate the ability to evaluate patients for CSF shunt infection and/or failure.
- Demonstrate the ability to evaluate pediatric neurotrauma patients.
- Demonstrate the ability to perform basic bedside and ICU procedures in children:
  - CSF shunt tap
  - ICP monitor
- Ventriculostomy
- Lumbar puncture/Lumbar drain placement.

- Discuss the intra- and peri-operative physiology of the premature infant, infant and child.
- Discuss the pathophysiology and management of congenital, post-hemorrhagic, post-infectious, post-traumatic, oncologic, and myelomeningocele associated hydrocephalus.
- Discuss the tumor biology of CNS malignancy in children.
- Discuss management of myelomeningocele patients in pre-natal, infant, child and adult age groups.
- Discuss the pathophysiology of childhood epilepsies, cortical dysplasia and heterotopia.
- Discuss the appropriate medical, surgical and endoscopic management of obstructive and communicating hydrocephalus.
- Discuss primary and secondary management of tethered spinal cord, including diagnosis of secondary tethering.
- Discuss ICU management of severe traumatic brain injury in children
- Discuss the diagnosis and management of non-accidental trauma including notification of the appropriate authorities.
- Discuss the role of surgery in medically refractory epilepsy treatment in children, including resective surgery and VNS.
- Discuss intra-operative and post-operative strategies for resection and adjunctive therapy in medulloblastoma, cerebellar astrocytoma and hypothalamic astrocytoma.
- Discuss appropriate post-traumatic and peri-operative narcotic orders in infants and children.
- Discuss appropriate pain management, sedation agents, doses and the regulatory limits on supervised sedation in pediatric patients.
- Discuss the principles of medical and surgical management of spinal cord injuries common to childhood: SCIWORA and craniocervical injury.
- Discuss and demonstrate the appropriate management for spinal cord and column injury in infants and children including ICU care, bracing, and surgery.
- Discuss the treatment of Chiari I malformation and syringomyelia, including the differential diagnosis of and various direct and indirect surgical treatments for syringomyelia.
- Discuss the management of congenital birth palsies.
- Discuss the medical and surgical management options in severe spasticity and dystonia related to cerebral palsy.
- Discuss the medical and surgical management principles in patients with neurocutaneous disorders, including neurofibromatosis types I and II, hereditary hemorrhagic telangiectasia, and tuberous sclerosis.
- Discuss the medical and surgical management of patients with intracranial and intraspinal cysts.
- Discuss the medical and surgical management of pediatric patients with intracerebral hemorrhage, including that related to arteriovenous malformations
- Discuss the medical and surgical management of CNS infections and parasitic
infection.

- Be able to discuss and write PICU and post-op orders appropriate for a premature infant, infant, child, and adolescent.
- Demonstrate the ability to participate in the multi-disciplinary management of craniosynostosis patients, including peri-operative planning and management, and postoperative care.
- Recognize different shunt valves, mechanisms and programming of programmable valves
- Understand the diagnostic a treatment paradigms for normal pressure hydrocephalus.
- Discuss the pathophysiology of craniofacial disorders, sporadic and syndromic, common manifestations and associations.

**INTERPERSONAL and COMMUNICATION SKILLS:**

- They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to neurosurgical attendings, and consulting physicians.
- They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians.
- They will present in weekly didactic case conferences and at Journal Club
- Provide accurate detailed sign out for all covering residents.
- They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
- Communicate treatment plans effectively with the pediatric house staff, nurse practitioners and nurses.
- They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with parents and with the patient as is appropriate.
- They will learn to communicate operative information regarding risks benefit and alternatives to parents and patient (as is appropriate) in an effective and compassionate fashion in order to obtain intervention or surgical consent.

**SYSTEMS-BASED PRACTICE:**

- Trainees will learn what the delivery of health care costs (daily hospitalization costs, the costs of imaging procedures and laboratory tests, surgical fees, anesthesia charges, etc.).
- They will be taught to practice cost-effective medicine without sacrificing good clinical outcomes.
- Discuss specific JCAHO hospital safety regulations that are particularly important in the management of non-verbal, very young, and very low weight patients.
- Discuss the appropriate notification procedures upon the diagnosis of non-accidental trauma in the pediatric population.
- Attend pediatric oncology, craniofacial, and spasticity conferences.
• Manage communication between the Pediatric ICU teams and pediatricians for co-managed patients.

PRACTICE-BASED LEARNING:
• Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to obtain a passing grade on this examination prior to completing their residency training.
• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
• The resident will present at pediatric tumor board and will present the pediatric M&M’s in the monthly M&M conference.
• Residents will learn that their best teachers are their patients. Much can be learned by studying their patients’ symptoms, whether these are relieved by a surgical procedure or other therapy, what benefit they derive from procedures and at what cost and, of course, the long-term follow-up.

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, and with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions,
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
Must be committed to and responsible for promoting patient safety.
Must demonstrate responsiveness to patient needs that supersedes self-interest.
Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

METHOD OF EVALUATION:
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  o They are required to obtain a passing grade on this examination prior to completing their residency training and becoming chief resident (PGY7).
  o They are also expected to improve their percentile performance on the ABNS primary examination each year.
• Resident will also attend weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
• The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
• The Neurosurgery Attending Staff reviews Resident Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
• The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
• Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

EPILEPSY
PATIENT CARE EPILEPSY:
• Perform all of the diagnostic, procedural and communicative skills and competency-based requirements outlined in the previous years, and apply those to the pediatric and the functional/epilepsy patient population.
• With appropriate supervision, residents will learn to competently perform the following procedures in the functional/epilepsy patient population:

**Epilepsy/Functional Neurosurgery Procedures:**
1. Craniotomy for Grid Placement –
2. Craniotomy for Functional Resection –
3. Craniotomy for Functional Brain Mapping –
4. Awake Craniotomies: craniotomies under local anesthesia with unique technical considerations for “awake” craniotomies.
5. Burr Holes for Deep Brain Stimulation
6. Burr Holes for Placement of linear electrode arrays and depth electrodes using natural landmarks, frameless and stereotactic frame based techniques for localization and trajectory planning.
7. Multistage Cortical resection for medically refractory epilepsy
8. Vagus Nerve Stimulator Implantation
   a. de novo implantation
   b. removal and revision of the system
   c. rudimentary programming of the stimulation parameters.
9. Laminectomy lumbar/thoracic for implantation of Spinal Cord Stimulators
   a. percutaneous and laminectomy implantation
   b. de novo implantation
   c. revisions and, and removal
   d. rudimentary programming
11. Laminectomy lumbar/thoracic for implantation of Intrathecal Pumps
12. DBS placement for movement disorders
13. All Neurosurgery PGY3 procedures

**MEDICAL KNOWLEDGE EPILEPSY:**
• Discuss the pathophysiology of childhood epilepsies, cortical dysplasia and heterotopia, benign and low-grade neoplasms, and common syndromes that are associated with epilepsy such as Tuberous Sclerosis.
• Discuss the role of surgery in the treatment of medically refractory epilepsy in children and adults.
• Discuss the role of vagus nerve stimulation related to intracranial surgery for epilepsy management.
• Discuss the role of the various diagnostic and therapeutic surgical procedures in light of the various characteristic medically resistant epilepsies.
• To relate the resective and augmentative techniques to the evolving understanding of epilepsy from a functional and physiologic rather than a purely anatomic problem.
• Discuss the relationship of experimental options such as responsive neurostimulation and deep brain stimulation to the current neurosurgical understanding of epilepsy management.
• Discuss the role of and the interpretation in the epilepsy surgery evaluation process in formulating a surgical plan that includes:
- video EEG monitoring
- Wada testing
- functional imaging (fMRI, PET, SPECT, MEG)
- neuropsychological evaluation and seizure semiology

- Discuss the various surgical approaches, electrode designs and implantation options to be able to sample from the convexity as well as hidden cortical surfaces.
- Discuss post implant care for the implanted patient.
- Discuss electrode removal.
- Discuss complication unique to electrodes.
- Discuss the options and considerations required for anatomic and functional resections in light of functional neurologic consequences.
- Discuss how functional imaging relates to the use of intra-operative functional study.
- Discuss how functional imaging is useful for both for invasive EEG and functional mapping
- Discuss the common complications and risk avoidance issues in the setting for epilepsy surgery but also its appropriateness adapted to special cases of neoplasm associated with seizures or eloquent cortex.
- Discuss the limitations and design of the surgical implantation to maximize efficacy.
- Discuss the theory, limitations, and interpretation of physiologic findings, of the diagnostic-therapeutic staged craniotomy epilepsy surgery, compared and contrasted to the standard single stage procedures such as classic antero-medial temporal lobe resection.
- Discuss procedure design how specific electrodes are located and used to answer important physiologic questions to maximize epilepsy control and minimize functional deficits from resection.
- Design and discuss appropriate resective epilepsy surgical procedure based on interpretation of diagnostic modalities.
- Discuss the relationship to percutaneous implantation of Spinal cord stimulators, the revisions and de novo implantation, and removal, and rudimentary programming.

**Neurosurgery PGY 5 (Residents rotate as Senior Residents at all three Institutions or on elective/research )**

The PGY 5 neurosurgery resident year is primarily an elective one in which the resident can choose to pursue neuroscience research or a directed intense neurosurgical subspecialty experience. Past residents have had concentrated experiences in Functional neurosurgery, Spinal neurosurgery, Endovascular neurosurgery, and Radiosurgery. The resident is expected to pass the ABNS primary examination during this year and to produce at least one manuscript for presentation at a national meeting and eventual publication. The R4 resident takes night call as the
primary emergency trauma consult resident and first assistant for the Bellevue Hospital Chief residents in emergency/trauma cases with graduated levels of operative responsibility. Neurosurgery PGY 5 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY4 resident prior to progressing to the Neurosurgery PGY5 year. Surgical techniques are learned and standards of care adopted. An attending physician supervises all Operating Room procedures performed by residents. In addition to mastering the procedures outlined below, the Neurosurgery PGY5 resident must master:

**PATIENT CARE:**
- They will demonstrate competence in performing operative procedures neatly and carefully, respecting tissue planes and preserving normal structures.
- Residents will master all prior items on this graduated level of responsibilities and program goals handout and with appropriate supervision, residents will learn to competently perform the following procedures:

**Procedures**
- Craniotomy for trauma
- Craniotomy for tumor
- Craniotomy for craniofacial repair
- Cranioplasty
- Stereotactic biopsies and resections
- Laminecctomy lumbar
- Laminecctomy thoracic/cervical
- Anterior cervical approach to spine
- Peripheral nerve repair/decompression
- Carotid endarterectomy
- Craniotomy/microsurgical technique for tumor
- Craniotomy/microsurgical technique for vascular lesion
- Transsphenoidal pituitary surgery
- Skull base craniotomy for tumor
- Extracranial / Intracranial vascular bypass surgery
- Transthoracic decompression of the spine
- Retroperitoneal decompression of the spine
- Complex spinal reconstruction for tumor/trauma
- All Neurosurgery R3 procedures

**MEDICAL KNOWLEDGE:**
- The resident will master the knowledge applicable to the chosen area of research and clinical expertise during this elective year.
- The resident will also demonstrate under appropriate supervision the ability to master the evaluation and care of operative and non-operative neurosurgical emergencies.

**INTERPERSONAL and COMMUNICATION SKILLS:**
• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

• They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians in an accurate and timely fashion.

• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.

• They will learn to communicate clearly and promptly with the nursing and support staff in order to obtain the best patient care.

• They will learn to communicate patient information, care plans, and prognosis effectively and compassionately with patients and their families.

• They will organize Journal Club including selecting and assigning the articles.

• They will also learn to present in weekly didactic case conferences.

SYSTEMS-BASED PRACTICE:

• Residents will be prepared for the regulatory and financial aspects of a clinical practice when they finish their residency. Residents will learn what it costs to run a practice and be cognizant of such information as: the mechanics of billing and collection, diagnostic and billing codes, Medicare and Medicaid regulations, etc.

• As trainees become more mature it will be important for them to realize that we have very few answers in neurological surgery. There will always be better ways of helping our patients: more efficient, less invasive, less morbid procedures, alternative therapies, better instrumentation, translational research, etc. In our program we stress to residents, as they become young neurosurgeons that during their subsequent careers they must strive leave the field better than they found it. During their residency they must question the validity of every procedure we do, especially in terms of cost/benefit and patient outcome. Residents are encouraged to be creative and use facilities that are available throughout the institution for development of instrumentation, software development, statistical analysis and basic science collaboration.

PRACTICE-BASED LEARNING:

• Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are organized by the PGY 5’s and discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.

• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.

• Residents will be involved in clinical prospective and retrospective follow-up studies and will learn the necessary data acquisition and analysis tools so that they can continue their investigations during their training and throughout their careers.

• Residents will learn that neurosurgery is not insular. Reading the literature in our field as well as other disciplines will spawn ideas for the improvement of
our techniques and practices. Development of web pages and sharing knowledge with colleagues in other countries by means of the Internet increases the excitement of and enriches our field.

- Participation at national meetings is encouraged. Post-residency fellowships overseas are also encouraged and contacts made with foreign colleagues support these. Trainees will realize early on that neurosurgery is international.
- Senior residents will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.
- Residents will learn that their best teachers are their patients. Much can be learned by studying their patients’ symptoms, whether these are relieved by a surgical procedure or other therapy, what benefit they derive from procedures and at what cost and, of course, the long-term follow-up

PROFESSIONALISM:
- Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.
- Residents will learn how to deal with patients and families in a compassionate and humanistic way.
- Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
- Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
- Demonstrate honesty in all professional interactions.
- Residents will maintain timely and accurate medical records.
- Residents will also:
  - Attend all required conferences in a timely fashion.
  - Pre-round on ICU patients and present timely, accurate data to team.
  - Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  - Provide consultation to the ED and other services in timely fashion.
  - Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  - Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  - Appear for duty appropriately rested and fit to provide the services required by their patients.
  - Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  - Must be committed to and responsible for promoting patient safety.
  - Must demonstrate responsiveness to patient needs that supersedes self-interest.
  - Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.
METHOD OF EVALUATION:

- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination.
  - They are required to obtain a passing grade on this examination during this year of their residency training and becoming chief resident (PGY7).
  - They are also expected to improve their percentile performance on the ABNS primary examination each year.
- Resident will also attend weekly didactic conferences and the monthly Journal Club.
- Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 75% of all mandatory resident conferences.
- The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
- The Neurosurgery Attending Staff reviews Resident Medical Documentation.
- Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
- The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
- Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
- Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

Research
After discussion with the Program Director, Department Chairman and Vice Chairman for Research, residents may elect to spend a year in the laboratory working on a pre-designed research project. All residents prior to reaching the PGY5 year will have developed research and investigative interests and may have begun specialized projects. Residents will have been assigned a research mentor and may identify a research project and laboratory in which to work.

Neurosurgery PGY 6 (Residents rotate as Senior Residents at Tisch Hospital on Teams 1 & 2)

Neurosurgery PGY6 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY5 resident prior to progressing to the Neurosurgery PGY6 year. The PGY6 resident works directly as the primary assistant for the attending neurosurgeons on all operations performed.
at the Tisch Hospital. The PGY6 resident is also primarily responsible, with attending supervision, for the in-patient care and evaluation of neurosurgical patients at Tisch Hospital. At Tisch Hospital, senior level residents work with master neurosurgeons on two distinct adult services; (Tumor/Vascular/Skull Base/Functional/Epilepsy Service) (Spine/Peripheral Services). During these rotations the residents assume more and more direct responsibility and surgical opportunities in the care of private patients. Surgical techniques are learned and standards of care adopted. An attending physician supervises all Operating Room procedures performed by residents. In addition to mastering the procedures outlined below, the Neurosurgery R6 residents must master:

**PATIENT CARE:**
- They will demonstrate competence in performing operative procedures neatly and carefully, respecting tissue planes and preserving normal structures. The will master the use of physiologic mapping techniques and neuronavigation (frame based and frameless) as adjuncts to surgery.
- Residents will master all prior items on this graduated level of responsibilities and program goals handout and with appropriate supervision, residents will learn to competently perform the following procedures:

**Procedures**
- Craniotomy for trauma
- Craniotomy for tumor primary and metastatic
- Craniotomy for craniofacial repair
- Cranioplasty
- Frame Based and Frameless Stereotatic biopsies and resections
- DBS and motion disorders surgery
- Carotid endarterectomy
- Craniotomy/microsurgical technique for tumor
- Craniotomy/microsurgical technique for vascular lesion (aneurysm and AVM)
- Transphenoidal pituitary surgery
- Endoscopic surgery for tumor and CSF diversion (3rd Ventriculostomy)
- Skull base craniotomy for tumor
- Craniotomy for posterior fossa surgery
- Extracranial / Intracranial vascular bypass surgery
- Serve as primary interventionalist for all INR cases, including highly complex procedures
- Carotid Endarterectomy
- Fundamental procedures in Interventional Neuroradiology (including treatment of aneurysms, arteriovenous malformations and fistulas, cranial and spinal tumor embolizations, and carotid occlusive disease)
- Craniocervical decompressive surgery
- Laminection lumbar for tumor (intra and extra dural)
- Laminection thoracic/cervical for decompression and resection of tumors (intradural –inc. intramedullary- and extra dural)
- Peripheral nerve repair/decompression
- Anterior cervical approach to spine inc. transoral
Anterior spinal instrumentation
Anterolateral spinal instrumentation
Transthoracic decompression of the spine
Retroperitoneal decompression of the spine
Transpedicular and extracavitary decompression of the spine
Cranio-cervical reconstruction
Complex spinal reconstruction for tumor/trauma/deformity
Anterior and posterior spinal osteotomies for deformity
Posterior spinal instrumentation (cranio-cervical-thoracolumbar-sacral-pelvic)
All Neurosurgery R3 procedures

MEDICAL KNOWLEDGE:
• Discuss the appropriate management of low back pain and spondylosis prior to surgical consideration, including PT, epidural steroids, pain management, etc.
• Discuss appropriate pre-operative smoking cessation protocols.
• Discuss ASA anesthetic risk classes and appropriate pre-operative anesthesia evaluation.
• Discuss cardiac ischemia risk assessment and reduction prior to surgery.
• List the principal factors that influence successful wound healing.
• Discuss the appropriate use of bracing in the evaluation of lumbar spondylolisthesis/instability.
• Discuss management protocols for patients on either anti-platelet or anti-coagulant therapy for various indications prior to spinal or cranial surgery.
• Review the signs, symptoms and pathophysiology of common syndromes of degenerative spinal disorders such as radiculopathy, myelopathy, instability and neurogenic claudication.
• Identify the common syndromes of spinal cord injury.
• Discuss the biomechanics of the craniocervical junction, cervical and thoracolumbar spine
• Discuss the definition of spinal instability and recognize the radiographic signs of congenital, degenerative, neoplastic and traumatic spinal instability.
• Identify the classical brain stem ischemic syndromes.
• Explain the concepts of cerebral blood flow, cerebral autoregulation, ischemic thresholds, intracranial pressure and cerebral perfusion pressure.
• Recognize the common causes of brain ischemic states.
• Discuss the epidemiology, physiology and underlying pathophysiology of ischemic brain injury, including concepts of critical therapeutic window.
• Recognize the common causes of intracranial, subarachnoid and intraspinal hemorrhage.
• Recognize the typical clinical course of patients with ischemic and hemorrhagic stroke, including peak risk intervals for edema, vasospasm and re-bleeding.
• Discuss the cutting edge practice of Interventional Neuroradiology.
• Discuss the differential diagnosis of ring-enhancing intracranial masses.
• Discuss the various tumors that may arise in the cerebellopontine angle.
• Discuss the classification schemes, anatomic location, cell of origin, clinical presentation, age at presentation, molecular biology and natural history of
common intrinsic brain neoplasms.

- Discuss the pathophysiology of Parkinson’s disease and essential tremor.
- Discuss the benefits and limitations of frame-based stereotactic procedures versus frameless stereotactic procedures.
- Discuss the classification of trigeminal facial pain and its therapeutic implications.
- Demonstrate an understanding of the anatomy, physiology, pathophysiology and presentation of peripheral nerve disease.

**INTERPERSONAL and COMMUNICATION SKILLS:**

- They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination to senior residents, neurosurgical attendings, and consulting physicians.
- They will learn how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians.
- They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
- They will present in weekly didactic case conferences and at Journal Club.

**SYSTEMS-BASED PRACTICE:**

- Residents will be prepared for the regulatory and financial aspects of a clinical practice when they finish their residency. Residents will learn what it costs to run a practice and be cognizant of such information as: the mechanics of billing and collection, diagnostic and billing codes, Medicare and Medicaid regulations, etc.
- As trainees become more mature is will be important for them to realize that we have very few answers in neurological surgery. There will always be better ways of helping our patients: more efficient, less invasive, less morbid procedures, alternative therapies, better instrumentation, translational research, etc. In our program we stress to residents, as they become young neurosurgeons that during their subsequent careers they must strive leave the field better than they found it. During their residency they must question the validity of every procedure we do, especially in terms of cost/benefit and patient outcome. Residents are encouraged to be creative and use facilities that are available throughout the institution for development of instrumentation, software development, statistical analysis and basic science collaboration.

**PRACTICE-BASED LEARNING:**

- Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.
- They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
- Residents will be involved in clinical prospective and retrospective follow-up studies and will learn the necessary data acquisition and analysis tools so that
they can continue their investigations during their training and throughout their careers.

- Residents will learn that neurosurgery is not insular. Reading the literature in our field as well as other disciplines will spawn ideas for the improvement of our techniques and practices. Development of web pages and sharing knowledge with colleagues in other countries by means of the Internet increases the excitement of and enriches our field.

- Participation at national meetings is encouraged. Post-residency fellowships overseas are also encouraged and contacts made with foreign colleagues support these. Trainees will realize early on that neurosurgery is international.

- Senior residents will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.

- Residents will learn that their best teachers are their patients. Much can be learned by studying their patients’ symptoms, whether these are relieved by a surgical procedure or other therapy, what benefit they derive from procedures and at what cost and, of course, the long-term follow-up.

**PROFESSIONALISM:**

- Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.

- Residents will learn how to deal with patients and families in a compassionate and humanistic way.

- Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.

- Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.

- Demonstrate honesty in all professional interactions.

- Residents will maintain timely and accurate medical records.

- Residents will also:
  - Attend all required conferences in a timely fashion.
  - Pre-round on ICU patients and present timely, accurate data to team.
  - Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  - Provide consultation to the ED and other services in timely fashion.
  - Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  - Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  - Appear for duty appropriately rested and fit to provide the services required by their patients.
  - Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  - Must be committed to and responsible for promoting patient safety.
  - Must demonstrate responsiveness to patient needs that supersedes self-interest.
o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

**METHOD OF EVALUATION:**

- Resident will present at weekly didactic conferences and the monthly Journal Club.
- Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 90% of all mandatory resident conferences.
- The senior residents who report directly to the attending surgeons will also evaluate the junior residents.
- The Neurosurgery Attending Staff reviews Resident Medical Documentation.
- Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed.
- The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
- Faculty members, a senior resident (as is appropriate), and the Neurosurgical NP’s evaluate all residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
- Residents are promoted each year based on demonstration of competent performance of all requirements as outlined above.

**Neurosurgery PGY 7)(Resident rotates as Chief Residents at Bellevue Hospital Center for 6 months)**

Over the six previous years of the training program, residents progress from supervised patient care providers and surgical assistants to competent practitioners who can function and operate independently with faculty acting as back-up. Neurosurgery PGY7 residents must demonstrate competence in all principles of patient care, medical knowledge, interpersonal & communication skills, and professionalism as well as in all procedures required of a Neurosurgery PGY6 resident prior to progressing to the Neurosurgery R6 year. An attending physician supervises all Operating Room procedures performed by residents. The PGY7 neurosurgical experience offers the residents a unique experience that is duplicated in very few programs in the country. During this year the residents with strict attending supervision get the opportunity to run very busy diverse neurosurgical practices with the emphasis placed on the evaluation and management of neurosurgical patients from the “start to finish.” This includes an extensive outpatient practice where the PGY7 resident has the primary responsibility to evaluate and manage all out patient neurosurgical problems including emergencies and transfers from other institutions. This also includes the pediatric patient population. This year allows the residents a seamless transition into the world of a fully independent practicing neurosurgeon. The
PGY7 resident sits in with the attendings at Bellevue hospital when purchasing decisions are made for the clinics and the operating room. They interface with the other services as the primary neurosurgical contact. These interactions are all done with close attending supervision but it does allow for the sense of autonomous decision-making. In particular:

The Bellevue Hospital chief resident, who consults with full time faculty, runs the neurosurgical service and functions at the level of a fully trained neurosurgeon in this primarily elective practice. The rotation allows the resident more autonomy as they run the neurosurgical service and performs all surgical procedures under close faculty supervision. Bellevue exposes residents to outpatient, emergency patient, and trauma patient management in addition to a large elective caseload in a large city hospital. The chief resident with attending supervision employs the methods and high standards learned at Tisch Hospital and gains confidence, enabling he or she to become a competent independent neurosurgical practitioner.

PATIENT CARE:

• Chief resident will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.
• Chief resident will manage all ICU and ward neurosurgical patients and obtain consultations.
• Formulate treatment plans for neurosurgical patients utilizing the best available evidence based studies.
• Discuss the appropriate use of peri-operative and chronic anti-coagulation in patients with cerebrovascular disease.
• With appropriate supervision, residents will learn to competently perform the following procedures:
  o Craniotomy for anterior circulation aneurysm
  o Craniotomy for AVM
  o Craniotomy for tumor:
  o Carotid endarterectomy
  o Transsphenoidal hypophysectomy
  o Skull base repair of CSF leak
  o Combined surgery for cranial base tumor resections and reconstruction
• Demonstrate an understanding of indications for surgical intervention for neurological diseases.
• Provide in-patient neurosurgical consultation with faculty supervision.
• Provide outpatient neurosurgical clinic care at Bellevue with faculty supervision.
• Independently perform all Neurosurgery PGY5 and PGY6 procedures with appropriate faculty supervision.
• Demonstrate the ability to recognize and treat complications related to neurosurgical diseases and procedures, including cerebral vasospasm, CSF leak, stroke, seizure, metabolic disorder, etc.
• Determine discharge readiness and direct discharge planning.
• By the end of this year, the Chief Resident will demonstrate competence in
independently performing (under faculty supervision) all of the common neurosurgical procedures performed by contemporary neurological surgeons in the United States.

• The Chief Resident will master all items on the program goals handout and demonstrate the ability to perform independently and competently as a neurological surgeon.

MEDICAL KNOWLEDGE:
8. Discuss the relevant surgical anatomy of the brain, spine, peripheral nerves and the bony coverings of each, particularly as they relate to diagnosis, surgical approaches, and treatment of neurosurgical diseases.
9. Discuss the pathophysiology of aneurysmal subarachnoid hemorrhage, cerebral vasospasm and communicating hydrocephalus after SAH.
10. Discuss and discuss the bleeding risk according to aneurysm type, location, and family history and Hunt-Hess classification.
11. Describe the pathophysiology, classification (typological, anatomical and surgical grade) and bleeding risk of arteriovenous malformations.
12. Discuss and discuss the pathophysiology of carotid stenosis, TIA, RIND, stroke, reperfusion syndrome, and chronic cerebral ischemia.
13. Identify threshold levels for flow-related cerebral ischemia in gray and white matter for electrical dysfunction and irreversible neuronal death and describe the various available methodologies for measuring or clinically estimating cerebral blood flow.
14. Discuss and discuss the pathophysiology of neoplastic diseases of the nervous system and its coverings.
15. Learn and discuss the differential diagnosis of skull base tumors presenting in various locations/compartments and the associated clinical presentations (with particular attention to associated cranial nerve deficits).
16. Learn and discuss current theory in adjunctive neuro-oncology care,
17. Learn and discuss the physiology and pathophysiology of the hypothalamic-pituitary endocrine axis and the associated diagnostic findings in pituitary tumor patients and patients with other sellar and supra-sellar lesions.

• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to obtain a passing grade on this examination prior to completing their residency training.

• Residents will master all items on this graduated level of responsibilities and program goals handout prior to completing residency training. Thus allowing them to be competent independent practitioners of Neurosurgery. This handout is given to all residents and reviewed with them annually.

INTERPERSONAL and COMMUNICATION SKILLS:
• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination neurosurgical attendings, and consulting physicians.
• Discuss how to evaluate, work up and treat patients in the out patient clinic setting.
• Discuss how to effectively communicate with patients and their families regarding the patient’s diagnosis, condition, need for intervention (or not), and the risks, benefits, and alternatives of it.
• They will discuss how to effectively communicate with patients and their families regarding bad news including poor outcome, death, and brain death.
• They will discuss how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians.
• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
• They will present in weekly didactic case conferences and at Journal Club.
• They will communicate with social work, rehabilitation specialists, and discharge planning nurses to coordinate the follow-up and long term care of their patients.
• Communicate with post-operative patients in the outpatient clinics regarding their progress, prognosis, activity level, and return to work status.

SYSTEMS-BASED PRACTICE:
• Coordinate the pre-operative clearance and scheduling of all surgical patients.
• Schedule the appropriate consulting surgeons and OR equipment in order to ensure ability to perform the appropriate procedure.
• Present all outpatient clinic patients to the attendings during the weekly outpatient teaching rounds including pertinent positives and negatives and treatment plan.
• Coordinate the outpatient work up of all potential surgical patients and ensure appropriate follow up for non-surgical patients.
• Residents will be prepared for the regulatory and financial aspects of a clinical practice when they finish their residency. Residents will discuss what it costs to run a practice and be cognizant of such information as: the mechanics of billing and collection, diagnostic and billing codes, Medicare and Medicaid regulations, etc.
• As trainees become more mature is will be important for them to realize that we have very few answers in neurological surgery. There will always be better ways of helping our patients: more efficient, less invasive, less morbid procedures, alternative therapies, better instrumentation, translational research, etc. In our program we stress to residents, as they become young neurosurgeons that during their subsequent careers they must strive leave the field better than they found it. During their residency they must question the validity of every procedure we do, especially in terms of cost/benefit and patient outcome. Residents are encouraged to be creative and use facilities that are available throughout the institution for development of instrumentation, software development, statistical analysis and basic science collaboration.

PRACTICE-BASED LEARNING:
• Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between
residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.

- Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to obtain a passing grade on this examination prior to completing their residency training.
- They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
- Residents will be involved in clinical prospective and retrospective follow-up studies and will learn the necessary data acquisition and analysis tools so that they can continue their investigations during their training and throughout their careers.
- Residents will learn that neurosurgery is not insular. Reading the literature in our field as well as other disciplines will spawn ideas for the improvement of our techniques and practices. Development of web pages and sharing knowledge with colleagues in other countries by means of the Internet increases the excitement of and enriches our field.
- Participation at national meetings is encouraged. Post-residency fellowships overseas are also encouraged and contacts made with foreign colleagues support these. Trainees will realize early on that neurosurgery is international.
- Senior residents will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.
- Residents will learn that their best teachers are their patients. Much can be learned by studying their patients’ symptoms, whether these are relieved by a surgical procedure or other therapy, what benefit they derive from procedures and at what cost and, of course, the long-term follow-up.

**PROFESSIONALISM:**

- Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.
- Residents will learn how to deal with patients and families in a compassionate and humanistic way.
- Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
- Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
- Demonstrate honesty in all professional interactions.
- Residents will maintain timely and accurate medical records.
- Residents will also:
  - Attend all required conferences in a timely fashion
  - Pre-round on ICU patients and present timely, accurate data to team
  - Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  - Provide consultation to the ED and other services in timely fashion.
  - Demonstrate dress, grooming and behavior consistent with institutional
and departmental guidelines
  o Comply with all GME and Departmental regulations regarding duty hour
    restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services
    required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety
    and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-
    interest.
  o Must recognize that under certain circumstances, the best interests of the
    patient may be served by transitioning that patient’s care to another
    qualified and rested provider.
• Residents will learn how to “run” an operating room including instructing staff and
  anesthesia colleagues in an effective and professional manner.

METHOD OF EVALUATION:
• Resident will present at weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the
  resident. They are required to attend at least 90% of all mandatory resident
  conferences.
• The Neurosurgery Attending Staff reviews the residents Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting
  presentations, and published manuscripts, awards, etc. are also reviewed
• The resident will also be evaluated on their attainment of these goals and
  objectives as well as on their performance in conferences on a quarterly basis
  through written evaluation of all 6 ACGME competencies (see resident
  evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, and the Neurosurgical NP's evaluate the residents after each
  rotation. They are evaluated on all 6 competencies (see resident evaluations).
  Their attendance and performance in didactic teaching conferences and their case
  logs are also reviewed. The Chairman and Program Director review these
  evaluations and give verbal feedback to the residents on a quarterly basis.
• Residents are graduated at the end of this year based on demonstration of
  competent performance of all requirements as outlined above and based on a clear
  demonstration that they have become competent independent practitioners of
  Neurosurgery.

Neurosurgery PGY 7 (Residents rotate as Chief Residents at the New York
  Harbor Health Care System (VA) for 6 months)
Over the six previous years of the training program, residents progress from
  supervised patient care providers and surgical assistants to competent practitioners
  who can function and operate independently with faculty acting as back-up. Neurosurgery PGY7 residents must demonstrate competence in all principles of
  patient care, medical knowledge, interpersonal & communication skills, and
  professionalism as well as in all procedures required of a Neurosurgery PGY6 resident
  prior to progressing to the Neurosurgery PGY7 year. An attending physician
supervises all Operating Room procedures performed by residents. The PGY7 neurosurgical experience offers the residents a unique experience that is duplicated in very few programs in the country. During this year the residents with strict attending supervision get the opportunity to run very busy diverse neurosurgical practices with the emphasis placed on the evaluation and management of neurosurgical patients from the “start to finish.” This includes an extensive outpatient practice where the PGY7 resident has the primary responsibility to evaluate and manage all out patient neurosurgical problems including emergencies and transfers from other institutions. This also includes the pediatric patient population. This year allows the residents a seamless transition into the world of a fully independent practicing neurosurgeon. The PGY7 resident sits in with the attendings at the Veterans hospital when purchasing decisions are made for the clinics and the operating room. They interface with the other services as the primary neurosurgical contact. These interactions are all done with close attending supervision but it does allow for the sense of autonomous decision-making. In particular;

The Chief resident consults with full time faculty, runs the neurosurgical service at the New York Harbor Health Care System (VA) in this primarily elective practice. At the VA, the chief resident supervises and mentors junior resident, and medical students. The rotation allows the resident more autonomy as they run the neurosurgical service and perform all surgical procedures under close faculty supervision. They gain exposure at the VA to out patient, emergency patient management in addition to a large elective caseload at a regional Neurosurgical referral hospital. The chief resident with attending supervision employ the methods and high standards learned at Tisch Hospital and gain confidence, enabling them to become competent independent neurosurgical practitioners.

PATIENT CARE:

- Chief residents will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.
- Chief residents will manage all ICU and ward neurosurgical patients and obtain consultation.
- Formulate treatment plans for neurosurgical patients utilizing the best available evidence based studies.
- Discuss the appropriate use of peri-operative and chronic anti-coagulation in patients with cerebrovascular disease.
- With appropriate supervision, residents will learn to competently perform the following procedures:
  - Craniotomy for anterior circulation aneurysm
  - Craniotomy for AVM
  - Craniotomy for tumor:
  - Carotid endarterectomy
  - Transphenoidal hypophysectomy
  - Skull base repair of CSF leak
  - Combined surgery for cranial base tumor resections and reconstruction
• Demonstrate an understanding of indications for surgical intervention for neurological diseases.
• Provide in-patient neurosurgical consultation with faculty supervision.
• Provide outpatient neurosurgical clinic care at the New York Harbor Health Care System with faculty supervision.
• Independently perform all Neurosurgery PGY5 and PGY6 procedures with appropriate faculty supervision.
• Demonstrate the ability to recognize and treat complications related to neurosurgical diseases and procedures, including cerebral vasospasm, CSF leak, stroke, seizure, metabolic disorder, etc.
• Determine discharge readiness and direct discharge planning.
• By the end of this year, the Chief Resident will demonstrate competence in independently performing (under faculty supervision) all of the common neurosurgical procedures performed by contemporary neurological surgeons in the United States.
• The Chief Resident will master all items on the program goals handout and demonstrate the ability to perform independently and competently as a neurological surgeon.

MEDICAL KNOWLEDGE:
18. Discuss the relevant surgical anatomy of the brain, spine, peripheral nerves and the bony coverings of each, particularly as they relate to diagnosis, surgical approaches, and treatment of neurosurgical diseases.
19. Discuss the pathophysiology of aneurysmal subarachnoid hemorrhage, cerebral vasospasm and communicating hydrocephalus after SAH.
20. Discuss and discuss the bleeding risk according to aneurysm type, location, and family history and Hunt-Hess classification.
21. Describe the pathophysiology, classification (typological, anatomical and surgical grade) and bleeding risk of arteriovenous malformations.
22. Learn and discuss the pathophysiology of carotid stenosis, TIA, RIND, stroke, reperfusion syndrome, and chronic cerebral ischemia.
23. Identify threshold levels for flow-related cerebral ischemia in gray and white matter for electrical dysfunction and irreversible neuronal death and describe the various available methodologies for measuring or clinically estimating cerebral blood flow.
24. Learn and discuss the pathophysiology of neoplastic diseases of the nervous system and its coverings.
25. Learn and discuss the differential diagnosis of skull base tumors presenting in various locations/compartments and the associated clinical presentations (with particular attention to associated cranial nerve deficits).
26. Learn and discuss current theory in adjunctive neuro-oncology care,
27. Learn and discuss the physiology and pathophysiology of the hypothalamic-pituitary endocrine axis and the associated diagnostic findings in pituitary tumor patients and patients with other sellar and supra-sellar lesions.
• Residents will master all items on this graduated level of responsibilities and program goals handout prior to completing residency training. Thus allowing
them to be competent independent practitioners of Neurosurgery. This handout is given to all residents and reviewed with them annually.

INTERPERSONAL and COMMUNICATION SKILLS:
• They will learn how to communicate the pertinent positives and negatives of a general medical and neurological examination neurosurgical attendings, and consulting physicians.
• They will discuss how to evaluate, work up and treat patients in the out patient clinic setting.
• They will discuss how to effectively communicate with patients and their families regarding the patient’s diagnosis, condition, need for intervention (or not), and the risks, benefits, and alternatives of it.
• They will also discuss how to effectively communicate with patients and their families regarding bad news including poor outcome, death, and brain death.
• They will discuss how to communicate critical interpretation and correlation of clinical and neurodiagnostic (imaging) examinations based on a sound knowledge of neurology and neuropathology to senior residents, neurosurgical attendings, and consulting physicians.
• They will learn to be competent in communicating with team members in the hand-over process in order to minimize errors during transitions of care.
• They will present in weekly didactic case conferences and at Journal Club.
• They will communicate with social work, rehabilitation specialists, and discharge planning nurses to coordinate the follow-up and long term care of their patients.
• Communicate with post-operative patients in the outpatient clinics regarding their progress, prognosis, activity level, and return to work status.

SYSTEMS-BASED PRACTICE:
• Coordinate the pre-operative clearance and scheduling of all surgical patients.
• Schedule the appropriate consulting surgeons and OR equipment in order to ensure ability to perform the appropriate procedure.
• Present all outpatient clinic patients to the attendings during the weekly outpatient teaching rounds including pertinent positives and negatives and treatment plan.
• Coordinate the outpatient work up of all potential surgical patients and ensure appropriate follow up for non-surgical patients.
• Residents will be prepared for the regulatory and financial aspects of a clinical practice when they finish their residency. Residents will discuss what it costs to run a practice and be cognizant of such information as: the mechanics of billing and collection, diagnostic and billing codes, Medicare and Medicaid regulations, etc.
• As trainees become more mature is will be important for them to realize that we have very few answers in neurological surgery. There will always be better ways of helping our patients: more efficient, less invasive, less morbidity procedures, alternative therapies, better instrumentation, translational research, etc. In our program we stress to residents, as they become young neurosurgeons that during their subsequent careers they must strive leave the field better than they found it.
• During their residency they must question the validity of every procedure we do, especially in terms of cost/benefit and patient outcome. Residents are encouraged to be creative and use facilities that are available throughout the institution for development of instrumentation, software development, statistical analysis and basic science collaboration.

PRACTICE-BASED LEARNING:
• Residents will learn to critically analyze the literature and presentations at meetings. Journal articles and conference presentations are discussed between residents and faculty in formal “Journal Clubs”, in conferences and in day-to-day discussions with faculty members.
• Resident fund of medical knowledge will be evaluated annually by sitting for the written portion of the ABNS primary examination. They are required to obtain a passing grade on this examination prior to completing their residency training.
• They will participate in clinical research projects where appropriate including participating in the IRB and consent process.
• Residents will be involved in clinical prospective and retrospective follow-up studies and will learn the necessary data acquisition and analysis tools so that they can continue their investigations during their training and throughout their careers.
• Residents will learn that neurosurgery is not insular. Reading the literature in our field as well as other disciplines will spawn ideas for the improvement of our techniques and practices. Development of web pages and sharing knowledge with colleagues in other countries by means of the Internet increases the excitement of and enriches our field.
• Participation at national meetings is encouraged. Post-residency fellowships overseas are also encouraged and contacts made with foreign colleagues support these. Trainees will realize early on that neurosurgery is international.
• Senior residents will teach, and mentor students and their junior residents, do clinical and basic science research throughout their residency and are encouraged to pursue an academic career upon completion of their training.
• Residents will learn that their best teachers are their patients. Much can be learned by studying their patients’ symptoms, whether these are relieved by a surgical procedure or other therapy, what benefit they derive from procedures and at what cost and, of course, the long-term follow-up.

PROFESSIONALISM:
• Trainees will learn constructive collegiality with faculty, their fellow residents, consultants and house staff from other specialties and services, but also with nurses and paramedical personnel.
• Residents will learn how to deal with patients and families in a compassionate and humanistic way.
• Maintain professional rapport and comportment with patient families, nurses, other physician teams and other hospital personnel.
• Demonstrate respect for patients and colleagues from diverse cultural, ethnic and religious backgrounds.
• Demonstrate honesty in all professional interactions.
• Residents will maintain timely and accurate medical records.
• Residents will also:
  o Attend all required conferences in a timely fashion.
  o Pre-round on ICU patients and present timely, accurate data to team.
  o Participate in discussion of ethical dilemmas related to care delivery, consent, and life support in severely injured patients.
  o Provide consultation to the ED and other services in timely fashion.
  o Demonstrate dress, grooming and behavior consistent with institutional and departmental guidelines.
  o Comply with all GME and Departmental regulations regarding duty hour restrictions and report personal schedule in timely and accurate fashion.
  o Appear for duty appropriately rested and fit to provide the services required by their patients.
  o Accurately self-report fatigue in situations that may compromise safety and/or patient care.
  o Must be committed to and responsible for promoting patient safety.
  o Must demonstrate responsiveness to patient needs that supersedes self-interest.
  o Must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.
• Residents will learn how to "run" an operating room including instructing staff and anesthesia colleagues in an effective and professional manner.

**METHOD OF EVALUATION:**
• Resident will present at weekly didactic conferences and the monthly Journal Club.
• Conference attendance and participation will be reviewed and discussed with the resident. They are required to attend at least 90% of all mandatory resident conferences.
• The Neurosurgery Attending Staff reviews the residents Medical Documentation.
• Resident academic productivity regarding published abstracts, meeting presentations, and published manuscripts, awards, etc. are also reviewed
• The resident will also be evaluated on their attainment of these goals and objectives as well as on their performance in conferences on a quarterly basis through written evaluation of all 6 ACGME competencies (see resident evaluations) and verbal feedback from the Chairman and Program Director.
• Faculty members, and the Neurosurgical NP's evaluate the residents after each rotation. They are evaluated on all 6 competencies (see resident evaluations). Their attendance and performance in didactic teaching conferences and their case logs are also reviewed. The Chairman and Program Director review these evaluations and give verbal feedback to the residents on a quarterly basis.
• Residents are graduated at the end of this year based on demonstration of competent performance of all requirements as outlined above and based on a clear demonstration that they have become competent independent practitioners of Neurosurgery.
Policies

All GME Policies can be found here https://nyumc.ellucid.com/home

Advancement Policy

Advancement in the program requires:

1. Completion of all scheduled rotations with supporting evaluations in all competencies. Graduation is at the discretion of the Program Director and the Clinical Competency Committee, typically based upon demonstrated improvement, and/or ongoing compliance with a remediation or probation plan.
2. Advancement along the Milestones to the satisfaction of the CCC and Program Director.
3. R4 residents should take the ABNS Primary Examination for credit during or in special circumstances prior to that year.
4. Complete and accurate procedure logs to substantiate future credentialing.
5. Completion/fulfillment of all “credentialing” requirements with the several hospitals and signoff by the Office of Graduate Medical Education.

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 06/10/2014
Reissue Date: 01/01/2016
Advancement Policy for House Staff Officers

I. Summary of Policy

NYULMC is committed to meaningful and enriching educational experiences for its House Staff Officers. This includes assurance that these House Staff Officers have the appropriate credentials to work in a clinical setting and remain gainfully employed while assuring meaningful education, personal health and safety for patients. In order to uphold these standards the NYU Office of GME has created the Advancement Policy for House Staff Officers in ACGME Accredited and Non-ACGME Accredited Programs which outlines the promotion requirements for each House Staff Officer to advance to the next progressively higher training level.

II. Definitions (if applicable)

C. House Staff Officer - a physician who is enrolled in an accredited or non-accredited NYUSoM Training Program for a clinical specialty or subspecialty this includes all Residents and Clinical Fellows.

D. ACGME – Accreditation Council for Graduate Medical Education
E. **AOA** – American Osteopathic Association

F. **CPME** – Council on Podiatric Medical Education

G. **Sponsoring Institution** – NYU School of Medicine and NYU Hospitals Center

H. **Office of GME** – Office of Graduate Medical Education

I. **Administrative LOA** - administrative leave of absence entails **no credit** for training and **no compensation** as the Resident or Fellow is not permitted to work during this Leave of Absence.

J. **House Staff Officer** – Trainees in specialty and subspecialty programs, whether or not ACGME-accredited.

K. **USMLE STEP 3** – The United States Medical Licensing Examination is a three-step examination for medical licensure in the United States and is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME). The Composite Committee, appointed by the FSMB and NBME, establishes policies for the USMLE program. Membership includes representatives from the FSMB, NBME, Education Commission for Foreign Medical Graduates (ECFMG), and the American public.

L. **COMLEX-USA Exam** - Developed by the National Board of Osteopathic Medical Examiners, COMLEX-USA is the new sequential three-level examination process for osteopathic medical licensure in the United States. The examination process is interdisciplinary and highly clinical, with even basic science components tested within a clinical context.

### III. Policy

#### A. **Advancing House Staff Officer Reappointment Criteria**

1. **Evaluation:** Advancing House Staff Officer Reappointment is dependent upon satisfactory demonstration of clinical competence and professional standards as determined by verbal and written evaluation by the Faculty. Unsatisfactory house staff officer evaluations can result in remediation, probation, and suspension from duties or termination of appointment as a house staff officer. A full description of NYULMC’s ‘Evaluation for Residents and Fellows Policy’ and ‘Corrective Action and Disciplinary Policy for House Staff’ can be viewed at on the GME website, under the “Policies and Procedures” section.

2. **Advancement Checklist:** Each Advancing House Staff Officer eligible to be promoted to the next progressively higher training level or transferring to another training program within NYULMC will receive an electronic
Advancement Checklist in New Innovations prior to their respective advancement date. House Staff Officers are required to complete the Advancement Checklist before they will be allowed to advance to the next training level. The requirements for advancement include completion of the following items:

a. E-Learning Compliance Modules
b. House Staff Contract

3. **USMLE Step 3 or COMLEX-USA Exam**: All House Staff Officers in ACGME-accredited programs with M.D. degrees must take USMLE Step 3 Exam prior to advancing to their final year of residency. House Officers with a D.O. degree may take either the USMLE exams (Steps 1, 2 & 3) or the COMLEX-USA exams (Levels 1, 2 & 3) – i.e. Medicine residents must take USMLE Step 3 before advancing to their third (3rd) year of residency; Surgery residents before advancing to their fifth (5th) year of residency. A full description of NYU Licensure Policy and USMLE requirements can be viewed at on the GME website, under the “Policies and Procedures” section. Foreign National Graduates are required to take and pass USMLE Step 3 to be eligible for an H1B Visa.

   All House Staff Officers in AOA-accredited programs must take and pass COMLEX 3 or USMLE Step 3 by the end of the PGY 2 year to continue training.

4. **Licensure**: A valid New York State medical license is required for all house staff in a non-accredited training program (or limited permit if the Fellow is not eligible for a License). (Note: Failure to take and/or pass USMLE Step 3 does not determine “eligibility.” See “Licensure Requirements for House Staff,” Sections V and VI.) This license must be obtained before training can begin and must remain valid throughout the duration of the training program. The Resident agrees to abide by NYU’s Licensure Policy in addition to the New York State licensure requirements for physicians in training, which can be found at: [http://www.op/nysed.gov](http://www.op/nysed.gov). NYU’s policy on licensure is more restrictive than that of New York State. A full description of NYU Licensure Policy can be viewed at on the GME website, under the “Policies and Procedures” section.

### IV. Policy Enforcement

#### J. **Failure to receive satisfactory evaluations.**

If a House Staff Officer receives unsatisfactory evaluations and fails to remediate, they may be subject to a delayed advancement date and corrective and/or disciplinary action may be taken as outlined in the ‘Corrective Action and Disciplinary Policy for House Staff’ which can be viewed at on the GME website, under the “Policies and Procedures” section.
K. Failure to complete the Advancement Checklist.

The Office of GME will track the submission of all documents and completion of all processes to obtain the status of House Staff Officer advancement and satisfaction of all checklist items. If a House Staff Officer fails to complete all requirements of the advancement checklist by the set due date, they will be required to petition the GME office for an extension of the deadline, with the support of the program director, in order to continue training without interruption.

L. Failure to take ULMLE Step 3 or COMLEX-USA Exam.

If a House Staff Officer fails to take USMLE Step 3 or COMLEX-3 prior to advancing to the last year of his/her residency, they will be placed on an Administrative LOA. A House Staff Officer placed on an unpaid Administrative LOA is not permitted to train and therefore cannot receive training credit or be paid for the time out on leave. House Staff Officers in AOA Accredited programs who fail to take USMLE Step 3 or COMLEX by the end of their PGY-2 year are subject to non-renewal of contract for the PGY-3 year.

M. Failure to pass USMLE Step 3 or COMLEX – USA.

If a House Staff Officer in an ACGME-accredited program takes the exam and fails, he/she should be placed on Remediation; however, they may be promoted and continue training. If a House Staff Officer in an AOA-accredited program takes the exam and fails, he/she will not be able to advance to the PGY 3 year and may be subject to non-renewal of contract for the PGY-3 year.

N. Failure to Obtain or Renew a License (Non-ACGME and Non-AOA Accredited Programs).

A resident or fellow who fails to maintain a valid NYS License (or limited permit) may not continue training. A resident or fellow who does not renew the valid NYS License (or limited permit) will be placed on an Administrative LOA. There are NO EXCEPTIONS.
NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 07/01/2013
Reissue Date: 01/01/2016
BLS/ACLS/PALS/NRP/ATLS Training Policy for House Staff Officers

I. Applicability of the Policy

NYU Hospital Centers BLS / ACLS / PALS / NRP/ATLS certification requirements for all House Staff Officers in ACGME and non-ACGME-accredited specialty and subspecialty programs.

II. Definitions (if applicable)

B. BLS – Basic Life Support
C. ACLS – Advanced Cardiac Life Support
D. PALS – Pediatric Advanced Life Support
E. NRP - Neonatal Resuscitation Program
F. ATLS – Advanced Trauma Life Support
G. ACGME – Accreditation Council for Graduate Medical Education
H. Director – The House Staff Officer’s NYU Director of Residency or Fellowship Training
I. NYULMC – NYU and its affiliated hospitals
J. House Staff Officer – In this document, all references to House Staff Officers include trainees in specialty and subspecialty programs, whether or not ACGME-accredited.
K. Office of GME – Office of Graduate Medical Education

III. Policy

1. The NYU Office of Graduate Medical Education requires the certification and maintenance of a current BLS, ACLS, PALS and NRP for all house staff officers in following training programs in accordance with the ACGME Program Requirements.
<table>
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<th>Program</th>
<th>BLS</th>
<th>ACLS</th>
<th>PALS</th>
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X = Required

2. Any programs excluded from the list above may still require BLS/ACLS/PALS/NRP certifications at the discretion of the Training Program Director and with approval of the Office of Graduate Medical Education.
3. All surgery residents must maintain ATLS certification in accordance with the New York State Trauma Program.

4. All certifications and record keeping is the responsibility of each training program, and must be made available to the Office of Graduate Medical Education upon request.

5. When re-certification is required as part of the residency or fellowship training program, the Office of Graduate Medical Education will provide the training without cost to the Resident/Fellow. BLS/ ACLS /PALS /NRP courses are available free of charge for all trainees excluding those in their final year of training through the NYU Department Emergency Medicine Training Division.

6. Each Training Program is responsible for registering their house staff for the BLS/ ACLS/ PALS/ NRP courses. The NYU Department Emergency Medicine Training Division will not accept registration requests submitted by house staff.

7. If a house staff officer does not attend a course they have been registered for, they will be marked, as a ‘no show’ for the class and the Training Program will be responsible for reimbursing the Office of Graduate Medical Education for the cost of the course.
Case Log Policy & Procedure

We adhere to the Case log guidelines of the Review Committee for Neurological Surgery as follows:

All ACGME neurological surgery residents are required to log their activity with the ACGME on the Resident Case Log system online on a regular basis.

The Clinical Competency Committee reviews the case log reports on a semi-annual basis to ensure that the residents are meeting predetermined minimum procedure requirements.

Resident Role:
Resident surgical procedures must be entered into the ACGME Case Log System. Residents must indicate their major role in each case: Assistant Resident Surgeon, Senior Resident Surgeon, or Lead Resident Surgeon. The definitions for these roles are:

- **Assistant resident surgeon**: includes positioning, sterile preparation, placement of monitoring devices, microscope preparation, participation in the initial (opening) or final (closing) portions of the case, and/or assisting the resident or staff surgeon(s)

- **Senior resident surgeon**: may include aspects of the above, and must include participation in the surgical procedure between opening and closing

- **Lead resident surgeon**: may include aspects of the above, and must include participation in the critical portion of the case

To claim a case, a resident must scrub in for the procedure (i.e., scrub hands, use sterile gloves, with or without gown). There can be several residents per case, but each resident may claim only one role per case (Assistant, Senior, or Lead). There can be only one Lead Resident Surgeon per case, but the Assistant and Senior Resident roles are not limited in number per case. Only those cases completed in the role of Senior Resident Surgeon or Lead Resident Surgeon will count towards the required minimum Case Log numbers. However, the Review Committee expects that the Case Log data will demonstrate increasing participation and progressive responsibility.

Credit:
Each resident may enter one or more CPT codes per case, but may claim credit for only one CPT code per case. If more than one resident participated in the same case, each resident may claim the same CPT code for credit for that case as appropriate, as long as the claimed roles are not the same, except for the Assistant Resident Surgeon role. For example, one Assistant Resident Surgeon may claim a CPT code for credit when participating in the initial (opening) portion of the case, while another Assistant Resident Surgeon may claim the same CPT code for credit when participating in the final (closing) portion of the same case. See critical care guidelines below for further information.
Patient Type:
- The Review Committee defines a pediatric patient as one who is less than 18 years old at the time of the procedure.
- An adult patient is defined as one who is 18 years or older at the time of the procedure.
- A pediatric patient who is 18 years or older at the time of a follow-up procedure must be logged as an adult patient.

Specific Coding Guidelines:
- Airway Management: The requirement for 10 procedures in this defined case category can be met by multiple procedures, including intubation, tracheostomy, thoracentesis, tube thoracostomy, and bronchoscopy. Bundling of CPT codes occasionally prevents a granular description of a procedure that is of interest to the Review Committee and central to neurological surgery education. Simple intubation, now bundled with anesthesia or critical care provision, is an example. Residents should search under DC26 (airway management) for the following code: 31575 (laryngoscopy, flexible fiberoptic; diagnostic)
  Though direct laryngoscopy is only a component of intubation and may not be performed fiber-optically, coding intubation in this manner will ensure appropriate credit.
- Critical Care: Residents are required to log 90 care critical procedures. Residents can pair one or more of these minor procedure codes with the primary code for a major procedure for a particular patient care episode. For example, if a resident intubates a patient, places a central line, and participates in a lumbar fusion, he or she may log a primary code for airway management as one case, a primary code for central line placement as a separate case, and a primary code for the lumbar fusion as a third case. Other elements of the spine surgery must still be included as secondary codes within the lumbar suffusion case.

Review Committee Expectations:
Residents graduating in 2014-2015 are expected to demonstrate compliance with all minimum numbers, except for the critical care (DC20-28) and endovascular (DC3b) procedures. Beginning with the 2015-2016 academic year, all program graduates are expected to demonstrate compliance with all minimum numbers without exception.

Monitoring of Case Logs:
Programs must monitor the accurate and timely entry of cases into the system. As part of monitoring resident progress towards developing competence in surgical skills, cumulative operative experience reports should be generated from the Case Log System and reviewed with each resident as part of his or her semiannual review. Program Administration completes monitoring of all resident Case Logs on a monthly basis. Reports are gathered and sent to
Program Director on an as needed basis. Program Administration also monitors Case Log Minimum Requirements notifies Program Director of any concerns or areas where resident may need fulfill or be on track to fulfilling requirements.
Chief Resident or Fellow Policy

NYU Hospitals Center
Issuing Department: Graduate Medical Education
Effective Date: 07/20/2011
Reissue Date: 01/01/2016
Chief Resident or Fellow Policy

I. Summary of Policy

This policy describes the appointment and duties of a Chief Resident or Fellow that are in addition to those regularly performed by other residents in his or her department and post-graduate year.

II. Applicability of the Policy

Applies to All NYU School of Medicine and NYU Hospitals Center trainees and Foreign National Physicians in ACGME and AOA accredited specialty and subspecialty programs.

III. Definitions (if applicable)

A. Chief Resident/Fellow – a senior-level resident or fellow who has been assigned administrative and training responsibilities within the residency training program.

B. Director – medical director of the residency-training program.

C. ACGME – Accreditation Council for Graduate Medical Education

D. AOA – American Osteopathic Association

E. Sponsoring Institutions – NYU School of Medicine and NYU Hospitals Center

IV. Policy

A. A Chief Resident or Fellow is appointed by his or her Director and is generally in his or her final year of Residency or Fellowship (e.g., Surgery) or is working for an additional year after residency is completed (e.g., Internal Medicine and Pediatrics). Some post-graduate training programs require that each resident serve as Chief Resident in the last or next to last year of training. The Director may give the title of Chief Resident or Fellow to as many residents in his or her program as available chief differentials and perform Chief Resident duties. Programs without Chief differentials are not allowed to give these duties to the house staff. Such duties frequently include:
a. supervising and training junior residents;

b. developing rotation, conference, journal club, lecture, and on-call schedules;

c. acting as a resident liaison;

d. providing formal medical student education;

e. monitoring and recording attendance;

f. reassigning residents as necessary for coverage issues when unplanned absences occur (due to illness, etc.);

g. making decisions on behalf of his or her department; and

h. performing other administrative duties as assigned by his or her Director of Training ("Director").

i. Extra Year Chief Residents must complete applications for and will be appointed to the Medical Staff at each institution (except the VA, in which case they will remain house staff.)

V. Compensation

A. Each training program is authorized to award additional compensation above the PGY compensation for one FTE Chief Resident per year, at the rate of $4,000 for NYU, $2,500 for NYU Lutheran and $4,162 for Bellevue ("differential"). Any program that has 10 residents or more is authorized to award the differential to additional Chief Residents, on the basis of one FTE differential for each 10 residents in the training program, not to exceed a total of 10 Chief Residents in a single program.

B. In the event the number of FTE Chiefs exceeds the number of allotted differentials, the program differential will be pooled and divided equally among the Chiefs. At the discretion of the Director, the differential may be prorated among Chiefs when the duration of a Chief Resident's term of appointment as Chief Resident is less than one year.

C. The Director must obtain approval from the Office of GME before the number of compensated Chief Residents may be increased beyond the total established for the program.

D. Directors have the discretion to develop Chief Appointment policies for their respective training programs that is more restrictive than this policy.
Concerns and Complaints Policy

Program Policy on Resident Concerns and Complaints

A concern is an issue, care, trouble, or distress that someone has about a residency or fellowship program and/or its sponsoring institution that creates uncertainty and apprehension. Examples include: inability to access one’s file; fear and/or intimidation within the program or institution; resident well-being issues; untimely verification of residency/fellowship education; inability to obtain a date for a grievance hearing; abuses of power or discretion.

The Neurological Residency Training Program maintains a policy that makes discussion regarding its functioning as open as possible for Residents to voice their concerns. Through the evaluation process, Residents are able to indicate their opinions, concerns and observations regarding their training in a confidential fashion. We will also strive to maintain the confidentiality of the individual who submits a concern.

The Program Director, Associate Program Directors and Site Directors are all readily available and willing to discuss any concerns at any time. In the event that the Resident prefers to discuss matters with someone else, faculty members in the division are readily available as well. Another avenue of communication is through your Chief Residents and/or Program Manager who can direct you to the proper individual(s) or, with your permission can transmit your concern to the Program administration.

In addition, the Associate Dean for Graduate Medical Education is also readily available. The DIO is the person in our institution’s graduate medical education (GME) office who has oversight over all of the programs at the institution.

We have a strict policy of non-retaliation for the reporting of any concerns/and/or complaints. Any member of the Faculty or the staff who engages in such behavior is subject to disciplinary action.

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 09/16/2011
Reissue Date: 01/01/2016
House Staff Officer Concerns or Complaints

I. Summary of Policy

The NYU School of Medicine is committed to maintaining an environment that is supportive and conducive to learning in which Residents/Fellows have the opportunity to raise concerns and provide feedback without intimidation or
retaliation and in a confidential manner as appropriate. As such, open communication with House Staff Officers is of utmost importance. In the event that an individual would like to discuss or report a concern or complaint, there are numerous opportunities for residents to do so, either directly or anonymously.

II. Applicability of the Policy

This policy applies to all House Staff Officers in GME residency or fellowship training programs at NYU.

III. Definitions (if applicable)

A. **GME** – Office of Graduate Medical Education

B. **GMEC** – Graduate Medical Education Committee

C. **CIR** – Committee of Interns and Residents - Bellevue Hospital

D. **DIO** – Designated Institutional Official

E. **Program Director** – Medical director of GME specialty or sub-specialty training program

F. **HSLC** - House Staff Leadership Council

G. **HSPSC** – House Staff Patient Safety Council

IV. Procedure

A. **House Staff Leadership Council (HSLC)** The ACGME Institutional Requirements state that the Sponsoring Institution and its programs must provide an environment in which residents may raise and resolve issues without fear of intimidation or retaliation. One forum that is required to provide this environment is an organization and/or forum for House Staff Officers to communicate, exchange information, and discuss and address House Staff Officer issues. The House Staff Leadership Council provides such a forum, and is comprised of representatives from each training program. The Council meets monthly, and all House Staff Officers are invited to attend, or are encouraged to express their comments or concerns to the House Staff Leadership Council representative from his/her program to speak on his/her behalf. House Staff Leadership Council is in regular contact with the DIO, and through him, the Vice Dean and Dean/CEO.
B. **House Staff Patient Safety Council** – Any issues or concerns related to quality and/or patient safety can also be brought to the House Staff Patient Safety Council (HSPSC). The HSPSC is comprised of NYU House Staff Officers who have an interest in quality and safety. House Staff Officers are welcome to bring concerns about patient safety or quality issues to this council, or, can ask the HSPSC representative from his/her program to speak on his/her behalf. To contact the House Staff Patient Safety Council, please contact the Office of GME.

C. **Annual Program Review** – The Annual Program Review, required by the ACGME and performed annually by Program leadership must include House Staff Officer representation from the program and must also include a review of written evaluations of the program, by the House Staff Officers. The Annual Program Review provides time for House Staff Officers to report any issues or concerns they may have with the training program and/or faculty. These issues or concerns will subsequently be reviewed by the Associate Dean for GME and the Senior Director of the Office of GME.

D. **Compliance Hotline (NYUHC/Tisch Hospital)** – A Compliance Hotline (1-866-NYU-1212) is also available to all members of the institution to allow for the confidential, anonymous reporting of activities that are contrary to hospital and School of Medicine regulations and policies such as violations of resident duty hours, and form of harassment, HIPAA violations, etc. Residents are reminded of and encouraged to use this Hotline on a regular basis.

E. **Compliance Hotline (Bellevue Hospital Center)** – A Medical Resident Hotline is also available through Bellevue Hospital Center intranet ([http://intranet.bellevue.org/](http://intranet.bellevue.org/)) Click directly on Resident Hotline Online Issues Form. The submission form will be forwarded to pertinent department Administrators, Chief's of Service, Medical Director and others in an effort to facilitate the resolution of the issues.

F. Incident/Error Reporting: House Staff Officers should report sentinel events, adverse events, and/or close calls. Reporting such events is the responsibility of all House Staff Officers, and will increase the focus on improving patient safety, help develop changes that result in improved outcomes, and increase our reporting of adverse events and our awareness of patient safety issues.

a. **At NYULMC:** House Staff Officers are encouraged to use the Patient Safety Intelligence (PSI) when working at an NYULMC facility. The PSI is a web-based application that allows users to electronically report events. Anyone can enter an event using the PSI, and these events can be reported anonymously. The PSI Icon can be found on every clinical...
desktop, or it can be access by navigating to The Link, selecting “web applications” on the right hand side of the screen, and clicking on “PSI for front line reporter.”

b. **At the Manhattan VA:** House Staff Officers can report events using a web-based reporting system, called Electronic Patient Event Reporting (ePER).

c. **At Bellevue:** To report events, please go to the Bellevue Hospital Center (BHC) Intranet, and click on the “Patient Safety Hotline” link on the right-hand side of the screen. Please follow all prompts.

d. **At NYU Lutheran:** House Staff Officers can report events using MIDAS.

**G. Residents on Bellevue Payroll** – When residents rotate onto the Bellevue Hospital pay line, they are also represented by a union, the CIR, that has additional avenues for the redress of grievances within its policies developed through collective bargaining.

**H. Program Director and/or DIO** – Residents may also contact their Program Director, DIO/Associate Dean for Graduate Medical Education, and/or the Office of Graduate Medical Education to discuss any issues of concern.
Corrective Action and Disciplinary Policy

NYU Hospitals Center
Issuing Department: Graduate Medical Education
Effective Date: 08/01/2013
Reissue Date: 01/01/2016
Corrective Action and Disciplinary Policy for House Staff

I. Summary of Policy

The Accreditation Council for Graduate Medical Education (ACGME) requires a written set of policies and procedures for House Staff Officer evaluation and for implementing corrective and/or disciplinary action when a House Staff Officer’s performance fails to meet required standards. This includes the criteria for any adverse action, such as placing a resident/fellow on probation or terminating a House Staff Officer whose performance is unsatisfactory. The procedures are designed to be fair to House Staff Officer, patients under care, and the training program and are applicable to all House Staff Officers in training at New York University School of Medicine (“NYU”) or any affiliated training sites.

All further references in this document to House Staff Officer shall include residents and fellows.

II. Applicability of the Policy

This policy applies to all House Staff Officers, including those in ACGME and non-ACGME- accredited specialty and subspecialty programs

III. Definitions

ACGME – Accreditation Council for Graduate Medical Education

AOA – American Osteopathic Association

CCC (for ACGME Accredited Programs)- Clinical Competency Committee, which is composed of at least three members of the Program faculty and may include faculty from other programs and non-physician members of the health care team. For each Program, there must be a written description of its CCC responsibilities, including: (a) review all resident evaluations semi-annually; (b) prepare and assure the reporting of Milestones evaluations of each resident semi-annually to ACGME; and (c) advise the program director regarding resident progress, including promotion, remediation, and dismissal.

CPH – Committee on Physicians’ Health of the Medical Society of the State of New York
**Director** – Director of Residency or Fellowship training program

**GME** – Office of Graduate Medical Education

**NYU** – New York University School of Medicine

**OPMC** – NYS Office of Professional Medical Conduct

**OPTI** - Osteopathic Postdoctoral Training Institution

**PTRC** - Program and Trainee Review Council at the NYU Lutheran site

**Sponsoring Institutions** - NYU School of Medicine and NYU Hospitals Center

**IV. Policy**

**A. Performance Deficiencies**

Upon receipt of satisfactory evaluations and compliance with all other terms of the House Staff Policies and Procedures, each House Staff Officer should expect to continue to the next level of training to program completion. If, however, a House Staff Officer’s performance is unsatisfactory, as determined by the CCC (or similar education committee for non-ACGME programs), the Director shall notify the House Staff Officer of that conclusion, both verbally and in writing, as soon as it is determined and initiate appropriate corrective and/or disciplinary action, as provided in *Section IV.A.1, Remediation*. In the ordinary course, corrective and/or disciplinary action should be imposed progressively, beginning with a plan for remediation and proceeding to probation and dismissal from the program if performance does not improve. In some cases, as outlined in *Section IV.A.3*, summary suspension may be appropriate. Prior to initiating any corrective and/or disciplinary action, the Director must consult with the Associate Dean for Graduate Medical Education and the Senior Administrative Director for NYU GME. In addition, the Director must inform all relevant Hospital Medical Directors of any disciplinary action initiated against the House Staff Officer under this *Section IV*.

1. **Remediation:** In the event that a House Staff Officer’s performance is unsatisfactory and summary suspension is not appropriate, the Director, after consultation with the NYU GME, shall issue a remediation letter to the House Staff Officer, which must include a detailed plan for remediation. Copies of the remediation letter and all subsequent administrative documentation relating to this corrective action shall be maintained in the Director’s and the NYU GME files.
a. The remediation letter may include documentary evidence, such as letters of complaint, attendance logs, reports from the licensure board, and other relevant documents and materials.

b. The remediation period must be defined in the remediation plan.

c. The plan for remediation must include directives for additional supervision and specific instructions with clear measurable educational goals and performance expectations.

d. The plan should provide for regular feedback from the Director (or Director's designee) to the House Staff Officer.

e. In determining the appropriate plan of remediation, the Director shall decide which action to take based on numerous factors, such as the nature and severity of the deficiency giving rise to the need for corrective action, the potential impact on patient health or safety, the impact of the House Staff Officer's conduct on the program or the facility, the likelihood that the deficiency can or shall be successfully remediated, and the degree of notice and opportunity to cure that the House Staff Officer has previously received.

f. At the end of the remediation period, the following may occur:

i. Conclusion of remediation, with a statement provided to the House Staff Officer stating that the conditions of remediation were satisfactorily resolved and there is no present need for further corrective action. Copies of such statement shall be maintained in the Director's and the NYU GME files;

ii. Continuation of remediation, provided the House Staff Officer has performed satisfactorily on a significant portion of his/her plan of remediation and the Director agrees to the assignment of an additional term of remediation. Continued remediation shall be approved for a specified period of time, with a redefinition of the problems and procedures to be followed in order to satisfy this additional term of remediation in accordance with this Section IV; or

ii. Imposition of a term of probation as specified under Section IV.A.2, Probation.
2. **Probation** - Following a summary suspension or the unsuccessful completion of a plan of remediation or as deemed necessary due to one or more recurring performance deficiencies after prior remediation periods, the Director or his/her designee shall place the House Staff Officer on probation, provided the House Staff Officer's continuation in the program does not constitute a serious threat to the welfare or safety of patients, employees, or other staff members or to the integrity of the program, as follows:

a. The Director or his/her designee shall meet with the House Staff Officer and present a written notice, drafted in conjunction with the NYU GME, stating:

i. the term of probation (ordinarily not to exceed six months);

ii. the reasons for probation (i.e., the House Staff Officer's specific actions or deficiencies that led to the recommendation for probation); and

iii. the conditions of probation (i.e., what the House Staff Officer shall be expected to do differently and the specific measures the department will take to provide the House Staff Officer the opportunity to achieve these goals). Copies of the written notice and all subsequent administrative documentation relating to this disciplinary action shall be maintained in the NYU GME files. Copies of the written instance also shall be forwarded to all relevant Hospital Medical Directors. The written notice shall advise the House Staff Officer of the right to appeal the decision of probation as provided in Section IV.B., Appeals.

b. At the end of the probationary period, the following may occur:

i. Termination of probation, with notice provided to the House Staff Officer stating that the conditions of probation were satisfactorily resolved and there is no present need for further probation. Copies of such statement shall be maintained in the Director's and the NYU GME files and forwarded to all relevant Hospital Medical Directors;

ii. Continuation of probation for an additional specified period of time with a written redefinition
of the problems and procedures to be followed in order to satisfy this additional term of probation in accordance with this Section IV.A.2; or

iii. Termination of the House Staff Officer’s participation in the residency or fellowship program in accordance with Section IVA.5, Dismissal.

c. A decision to place a House Staff Officer on probation may require reporting to the appropriate State agency, as discussed in Section IV.C., Reporting.

3. Summary Suspension - A House Staff Officer may be summarily suspended from participation in the residency/fellowship training program by the Director, the Department Chair, a Hospital Medical Director, or the Dean of the School of Medicine or his/her designee a) if the House Staff Officer’s actions or his/her continued participation in the program may constitute a threat to the welfare or safety of patients, employees, or other staff members or to the integrity of the program; or b) if his/her license or permit is suspended or revoked. When a House Staff Officer is summarily suspended from the program, the following procedures shall be followed:

a. The Director, in conjunction with the NYU GME, shall provide the House Staff Officer with written confirmation of his/her suspension. The notice shall specify the deficiencies that gave rise to the suspension, the term of the suspension, and any conditions that might be imposed for resuming participation in the residency/fellowship program after the period of suspension. Copies of this notice shall be maintained in the Director’s and the NYU GME files. Copies shall also be forwarded to all relevant Hospital Medical Directors. Credit for GME training shall not be given to a House Staff Officer during a period of suspension. No compensation is earned or paid to a House Officer during a period of suspension, but health insurance and professional liability insurance coverage is maintained.

b. The House Staff Officer shall be advised in writing of the right to appeal the suspension as provided in Section IV.B., Appeals.

c. The House Staff Officer shall be advised in writing regarding the program’s policy with respect to whether, upon return from suspension, any academic or clinical work and/or additional time will need to be made up, and/or completion of training extended due to the suspension period.
At the end of the suspension period, the Director, in conjunction with the NYU GME, shall notify the House Staff Officer in writing as to what further action, if any, is to be taken. Copies of this notice shall be maintained in the Director’s and the NYU GME files. Copies shall also be forwarded to all relevant Hospital Medical Directors. One of the following may occur:

i. Termination of suspension, with a statement provided to the House Staff Officer stating that such suspension occurred and there is no present need for additional disciplinary action;

ii. Termination of suspension and placement of the House Staff Officer on probation as specified under Section IV.A.2, Probation; or

iii. Termination of the House Staff Officer’s participation in the residency or fellowship program, in accordance with Section IV.A.5, Dismissal.

d. A decision to suspend requires reporting to the appropriate State agency, as discussed in Section IV.C., Reporting.

4. Denial of Academic Credit:

If a House Staff Officer fails to make up work missed during a summary suspension; does not satisfactorily complete remedial work during a probationary period; misses a significant component of the academic program during leave from the program; or has otherwise failed to make sufficient academic progress, the Director may require the House Staff Officer repeat all or part of the academic year’s work.

5. Dismissal:

a. The Director shall recommend the House Staff Officer’s dismissal from the program to the Department Chair or Dean or his/her designee, if the House Staff Officer has:

i. Misrepresented credentials upon which s/he had been accepted into the program, which will not be subject to the appeals process;

ii. Engaged in conduct that threatens the welfare or safety of patients, employees, or other staff members or the integrity of the residency or fellowship
training program, or if his/her license or limited permit is revoked or suspended;

b. Failed to meet standards for academic, clinical, or professional conduct/performance, as set forth in the NYU Office of GME “Evaluation Policy for Graduate Medical Education,” after summary suspension or probation.

i. The process of dismissal shall be initiated by recommendation of the Director to the Department Chair after consultation with the NYU GME. The Department Chair shall make the final decision to dismiss in consultation with the Director and/or the Dean or his/her designee and shall record the recommendation and the reasons thereof in writing.

ii. The House Staff Officer shall receive notice of dismissal from the Department Chair with a copy of the recommendation for dismissal and the reasons thereof. S/he also shall receive notice of his/her right to appeal, as provided in Section IV.B., Appeals. Notice of the recommendation for dismissal and all subsequent administrative documentation relating to this disciplinary action shall be maintained in the Director’s and the NYU GME files. A copy of the notice of dismissal shall be forwarded to all relevant Hospital Medical Directors.

iii. If the House Staff Officer does not request a hearing, the recommendation for dismissal shall be final and effective as of the date of receipt by the House Staff Officer, and the decision to dismiss shall not be subject to further review, in accordance with Section IV.B., Appeals.

iv. If a House Staff Officer is dismissed before the completion of his/her academic year, the Director shall determine the number of month’s credit to be given the House Staff Officer for that academic year.

v. A decision to dismiss requires reporting to the appropriate State agency, as provided in Section IV.C., Reporting.

6. **Training Extensions**
a. **For ACGME programs:** The Program has the authority to extend the house staff officer’s contract for a period of up to 1 month for leave or illness purposes without requesting approval from the RRC. All extensions beyond one month need to be approved by the RRC.

b. **For AOA programs:** The Program has the authority to extend the house staff officer’s contract for a period of up to 3 months for leave or illness purposes without requesting approval for overlap from the Specialty College and/or PTRC. There is no need to request temporary increase in complement from the PTRC for extension up to 3 months. If a remediation plan results in the extension of training in excess of 3 months, advanced approval must be obtained and reported to the AOA Division of Postdoctoral Training, specialty College and OPTI. A copy must be maintained in the house staff officer’s file.

**B. Appeals**

1. Neither the decision to place a House Staff Officer on a plan of remediation nor the plan of remediation itself is appealable.

2. The decision to summarily suspend, place on probation, not advance, deny academic credit, or dismiss a House Staff Officer is appealable, as follows:

   a. The House Staff Officer must submit a written request for a hearing to his/her Department Chair within seven calendar days after his/her receipt of written notice of an appealable adverse decision or recommendation. If no request is submitted within such seven-day period, the Director's decision shall become final and not subject to further review.

   b. The Dean or his/her designee in consultation with the Department Chair shall appoint an ad hoc Appeals Committee. The Appeals Committee shall consist of two attending physicians, each of whom hold faculty appointments in the New York University School of Medicine, and two House Staff Officers, none of whom have had prior direct involvement in the proceedings with respect to the House Staff Officer.

   c. The Appeals Committee shall be charged to review and make a recommendation to the Dean or his/her designee on the following issues:
i. Was the decision of the department or division made substantially in compliance with the procedures set forth in the *Corrective Action and Disciplinary Policy for House Staff Officers*?

ii. Was the decision of the department or division made arbitrarily and capriciously or in bad faith or in violation of anti-discrimination or other laws or regulations?

iii. It is not the role of the Appeals Committee to substitute its academic judgment for the academic judgment of the department or division. If the Appeals Committee determines the answer to i) is yes and the answer to ii) is no, the Appeals Committee should uphold the decision of the department or division. If the Appeals Committee determines that the department has failed to substantially comply with the procedures of the *Corrective Action and Disciplinary Policy for House Staff Officers* or that the decision of the department was made arbitrarily and capriciously or in bad faith or in violation of anti-discrimination or other laws or regulations, the Appeals Committee shall make an appropriate recommendation for remedy or reversal.

d. The Appeals Committee shall hold a hearing in a timely fashion. The House Staff Officer shall receive at least three calendar days’ prior notice of the hearing. Such notice shall include a statement of reasons(s) for the department or division’s decision to summarily suspend, place on probation, not advance, deny academic credit or dismiss the House Staff Officer. The Director, the NYU GME, and all relevant Hospital Medical Directors shall receive copies of the notice.

e. The Appeals Committee shall make rules it deems necessary to assure prompt, fair, and expeditious handling of the appeal. The Committee shall be permitted to have legal counsel present during the hearing. The rules of law relating to the examination of witnesses or presentation of evidence shall not apply. Any relevant matter upon which responsible persons may rely on the conduct of serious affairs may be considered.
f. The Appeals Committee shall conduct interviews and review documents, including medical records, as the Appeals Committee deems necessary or helpful in its conduct of the investigation. A recording of all interviews shall be made. The Appeals Committee may require a physical and/or mental evaluation of the House Staff Officer in any case where the Appeals Committee has reason to consider the physical or mental competency of the House Staff Officer. Appropriate consultants shall carry out such evaluation, and a report of the evaluation shall be forwarded to the House Staff Officer as well as to the Appeals Committee.

g. The Appeals Committee shall be authorized to recommend that the charges or proposed disciplinary action raised against the House Staff Officer be modified.

h. The physical presence of the House Staff Officer for whom the hearing has been scheduled shall be required. Failure to appear without good cause shall be deemed a waiver of the House Staff Officer's right to the hearing provided in this section, shall be considered an acceptance of an adverse decision, and is final.

i. At the hearing the House Staff Officer may elect to be accompanied or represented by an attorney or other persons of his or her choice. The role of this representative shall be limited to providing advice and counsel to the House Staff Officer; and addressing the members of the Appeals Committee. The role of the representative shall not include the questioning of witnesses. The Appeals Committee may, in its discretion, further define, expand, or limit the role of any such representative.

j. The House Staff Officer (or his/her representative) shall have the right to present the House Staff Officer's position to the Appeals Committee, together with such other documentation as the House Staff Officer may wish. The House Staff Officer may suggest witnesses who have information relevant to the issue under appeal. It shall be within the sole discretion of the Appeals Committee to determine if the witnesses will be interviewed.

k. Following the hearing, the Appeals Committee shall submit to the Dean or his/her designee a written report and recommendation, which may include a recommendation that the proposed charges or disciplinary action be modified. The House Staff Officer
and the Director, the NYU GME, and all relevant Hospital Medical Directors shall receive copies of the report for their files.

1. The Appeals Committee shall forward the record of its proceedings and interviews to the Dean. The proceedings and records of the Appeals Committee and the Dean's decision shall be, so far as possible, confidential, but shall be retained as an institutional record.

The Dean or his/her designee shall issue a final written decision within seven (7) calendar days after receipt of the Appeals Committee's report. The House Staff Officer and the Director, the NYU GME, and all relevant Hospital Medical Directors shall receive copies of the decision for their files.

a. The decision of the Dean or his/her designee is final and, therefore, not subject to further appeal.

C. Reporting

1. Whenever the Director takes any action under Subsections IV.A.2, 3, 4 or 5, *Performance Deficiencies*, s/he shall notify the Associate Dean for Graduate Medical Education, the Senior Administrative Director for NYU GME, and all relevant Hospital Medical Directors of the action taken and the circumstances surrounding it, as well as the ultimate disposition of the matter.

2. Hospitals are required, under § 405.3 (e), *Codes, Rules and Regulations of New York State*, to report to the OPMC any denial, suspension, restriction, termination, or curtailment of training, employment, association, or professional privileges or the denial of certification of completion of training of any physician licensed or registered by the New York State Department of Education for reasons related in any way to any of the following

   a. Alleged mental or physical impairment, incompetence, malpractice, misconduct, or endangerment of patient safety or welfare;

   b. Voluntary or involuntary resignation or withdrawal of association or of privileges with the Hospital to avoid the imposition of disciplinary measures; and

   c. The receipt of information concerning a conviction of a
misdemeanor or felony. The report must be made in writing to OPMC, with a copy to the appropriate area administrator of the New York State Office of Health Systems Management, within 30 days after the taking of such action, and must include:

1. The name and address of the individual;
2. The profession and license number;
3. The date of the Hospital’s action;
4. A description of the action taken; and
5. The reason for the Hospital’s action or the nature of the action or conduct which led to the resignation or withdrawal and the date thereof.

3. In cases involving unlicensed physicians practicing under a limited permit or serving in a clinical fellowship or residency, the Hospital must report to the New York State Education Department Office of Professional Discipline.

4. All licensed health professionals, including physicians, are required by state law to report colleagues whom they suspect may be guilty of misconduct as defined in New York State law. Failure to report suspected instances of misconduct is, in itself, misconduct. For physicians and House Staff Officers affiliated with a hospital, the report can be made to the hospital’s Chief Medical Officer, who will then inform OPMC; in the case of a House Staff Officer, the report may be made to the Program Director, the DIO, the Senior Administrative Director for NYU GME, and/or all relevant Hospital Medical Directors. If the colleague is not affiliated with a hospital, a report can be made to the county medical society, which will be responsible for reporting to OPMC. If a health professional is uncertain whether specific actions or behaviors constitute misconduct, s/he may request advice from OPMC without revealing the name of the practitioner. Once advice is provided, the health professional who requested the advice is required to follow it.

5. Practitioners suspected of having problems with alcohol, drugs, or mental illness, *but whose ability to practice is not impaired*, may be reported to the Committee on Physicians’ Health of the Medical Society of the State of New York (CPH). All calls are confidential. CPH identifies, refers to treatment and monitors impaired physicians. The program is voluntary and participation is confidential. The names of physicians participating in the program are not shared with OPMC without a participant’s approval unless there is a failure to comply with treatment recommendations. A physician whose medical performance may be impaired, however, also must be reported to OPMC. The
law does not exempt physicians from their duty to report colleagues practicing with a suspected impairment to OPMC because they have reported to CPH.

6. Nothing in this policy relieves the institution of its obligations to report incidents of possible professional misconduct under applicable laws and regulations. The results of drug or alcohol testing and matters related thereto shall be kept confidential except to the extent necessary to implement this policy.

7. A Plan for Remediation need not be reported.
Disaster Policy

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 05/16/08
Reissue Date: 01/01/2016
Disaster Policy

I. Policy Purpose

To define the basic procedures and assigned responsibilities to efficiently and effectively reconstitute and restructure the resident training experience following a disaster or a set of significant events, and/or interruption inpatient care. NYU SoM strives to provide a stable educational environment for House Staff Officers and to provide guidelines for administrative continuity and maintenance of the critical teaching mission of the NYU SoM.

When disasters occur elsewhere we will attempt to take on displaced residents from other programs when feasible. In order to credential House Staff displaced due to natural or other disasters. The GME may accept a modified list of credentials, agreed upon by the DIO, the Director, and the Senior Administrative Director of GME of the host institution. Under all circumstances, it is the responsibility of the GME to credential displaced House Staff.

II. Applicability of the Policy

All Trainees, including those in ACGME and non-ACGME accredited specialty and sub-specialty program.

III. Definitions (if applicable)

A. NYUHC – NYU Hospitals Center
B. NYU SoM – New York University School of Medicine
C. GMEC – Graduate Medical Education Committee
D. GME – Office of Graduate Medical Education
E. ACGME – Accreditation Council for Graduate Medical Education
F. DIO – ACGME Designated Institutional Official
G. IRIS – Medicare GME Reimbursement System – Intern & Resident Information System
H. Disaster – An event or set of events causing significant alteration to the residency experience at one or more residency programs.
I. Director – Medical Director of the ACGME-accredited or non-accredited specialty or sub-specialty program.
J. House Staff Officer – Trainees in specialty and subspecialty programs, whether or not ACGME-accredited.

V. Responsibilities
A. GMEC’s Responsibilities

1. The GMEC is responsible for assuring that all graduate medical education programs and Directors are aware of and comply with this policy and for monitoring program-specific contingency planning for a disaster or interruption in patient care.

B. NYUSoM’s Responsibilities

1. All NYUSoM sponsored graduate medical education Directors are responsible for implementing this policy as it pertains to program-specific disaster contingency planning and to communication with the Office of Graduate Medical Education, ACGME, and House Staff Officers regarding temporary and/or permanent transfers.

C. DIO and GME Responsibilities

1. The NYU SoM Designated Institutional Official to the ACGME and the NYU SoM Graduate Medical Education Program staff are responsible for working with disaster-affected programs and Directors to reconstitute or reconfigure the educational experience for residents and clinical fellows.

IV. Procedure

1. Prior to any expected emergency planning for an anticipated emergency (i.e. a hurricane or storm) the DIO will establish communication with all programs and provide ongoing communication and instructions.

2. Immediately after a disaster or interruption in patient care, each graduate medical education program affected by the disaster or interruption, under the direction of its Director, and in collaboration with the DIO and the Office of Graduate Medical Education, will undertake all reasonable measures to ascertain the whereabouts of its trainees and ensure their safety. If trainees are in immediate danger, the Director, in collaboration with the DIO and Office of GME, will coordinate all reasonable measures available to the NYUSoM to remove trainees from harm and return them to safety.

3. Communication: Consistent with the NYU Emergency Operations Plan, information concerning disaster operations can be found at www.med.nyu.edu. The Office of Graduate Medical Education will serve as a command center for House Staff Officers and Program Directors during a disaster. In the event that the NYU website or email is not available, alternate means of communication such as cell phones, personal emails may be used, including social media. NYUSOM/Hospital may also use Send Word Now (SWN) as a means of emergency communication to cell phones using text, voice and email messaging. To help ensure the effectiveness of their communications, all House Staff are strongly encouraged to update their
emergency contact cell phone numbers in PeopleSoft.

4. As soon as possible after the disaster or interruption in patient care, the DIO will notify the ACGME of the nature and details of the disaster or the interruption. The Executive Director of ACGME with consultation of the ACGME Executive Committee and the Chair of the Institutional Review Committee will decide if the disaster report warrants a declaration of disaster by the ACGME. Should the ACGME declare a disaster, a notice will be posted on the ACGME website, with information relating to the ACGME response to the disaster. The DIO will monitor this information and maintain ongoing communications with the ACGME.

5. Following declaration of a disaster or an interruption in patient care, the DIO, Office of Graduate Medical Education, working with the GMEC, and other NYU SoM administration will work to restructure, reconfigure or reconstitute the educational experience for trainees enrolled in NYU SoM sponsored graduate medical education programs affected by the disaster or interruption, as quickly as possible.

6. Within ten days after a declaration of disaster is issued by the ACGME, the DIO or his/her designee will contact the ACGME to discuss the due dates that the ACGME will establish for each affected program to: Submit proposed program reconfigurations for review by the ACGME Inform each House Staff Officer of a transfer decision

7. **Transfer**

   a. If the DIO determines that the NYU SoM sponsored graduate medical education program(s) affected by the disaster or interruption in patient care cannot be restructured or reconstituted to provide an adequate educational experience for House Staff Officers, or if the program cannot be restructured or reconstituted within an appropriate time frame to allow House Staff Officers to complete their training program requirements within the standard time required for certification within their specialty, then the DIO working in collaboration with the Director(s), the Office of Graduate Medical Education, and NYU SoM administration will:

      i. Arrange temporary transfers to other programs/institutions until such time as the training program can provide an adequate educational experience for each of its House Staff Officers.

      ii. Cooperate in and facilitate temporary/permanent transfers to other programs/institutions. Programs/institutions will make the keep/transfer decision expeditiously so as to maximize the likelihood that each resident will timely complete the training year.

      iii. A Memorandum of Understanding (MOU) will be created for each rotating
Institution to which our trainees are being displaced.

b. Inform each transferred trainee of the minimum duration of his/her temporary transfer, and continue to keep each trainee informed of the minimum duration. If and when a program decides that a temporary transfer will continue to and/or through the end of a training year, it must so inform each such transferred trainee.

c. During the period of time that NYU trainees spend in temporary transfer at the host program, NYU and affiliates will continue to provide salary, travel, and benefits to the trainee, consistent with applicable law.

8. NYUSoM trainees, who, as a result of the disaster or interruption in patient care, temporarily transfer to other training programs, will be provided by their Directors with a best estimate of the duration of time that relocation to the host program will be necessary. Should the time at the host program need to be extended, the House Staff Officers will be notified by their Director(s) using written or electronic means, indicating the estimated duration of the extension.

9. The DIO will be the primary institutional contact with the ACGME and the Institutional Review Committee Executive Director regarding disaster plan implementation and communication regarding specific graduate medical education needs within NYU SoM. The DIO will call or email the Institutional Review Committee Executive Director with information and/or requests for information as specified in the ACGME Policies and Procedure manual. Communications from Directors to the ACGME will be directed by phone or email to the appropriate Review Committee Executive Director. Communications from residents/clinical fellows to the ACGME also will be directed to the appropriate Review Committee Executive Director.

10. Individual NYU sponsored graduate medical education programs will take responsibility for establishing contingency plans and procedures to address continuation of program leadership, evacuation planning, relocation, program recovery, maintenance of communication and working with affiliates in the event of a disaster or interruption in patient care and coordinate all plans through the Graduate Medical Education Office.

11. Individual NYU sponsored graduate medical education programs will, to the extent permitted by available resources and program personnel, protect the academic and training files of residents or clinical fellows from loss or destruction by disaster.

12. Administrative Support

   a. All temporary Disaster Relief rotations to other institutions must be maintained in New Innovations.
b. In the event of a disaster, communication between the Senior Administrative Director of Graduate Medical Education, the DIO, Chief Medical Officers of NYU Tisch Hospital and the affiliate institutions, General Counsel, and the Vice Dean of Human Resources will be initiated to mobilize House Staff. During a disaster House Staff can obtain current information on the NYU Emergency Management website: http://central.nyumc.org/clin/admin/E-MGMT/Pages/home.aspx as well as the Employee Emergency Information Hotline: 212-263-2002. Communications may also be sent to all House Staff using Send Word Now (SWN), via text, voice or email messaging.

13. **Displaced Residents From Other Programs**

   a. If salary and support will continue to be provided by home institution, then the House Staff will only need to submit the following:

   i. In-Elective Form, Request, and Agreement
   ii. House Staff Application
   iii. Proof of approval of Director & DIO from host institution

   b. If the House Staff is to be employed in addition to the above, the necessary employment paperwork must be submitted, following the credentialing checklist of NYUSoM.

   c. If the displaced House Staff was in the accredited program at their home institution, the corresponding accredited program at NYUSoM and NYU Lutheran Medical Center must request ACGME permission to temporarily host displaced House Staff.

14. **Record Keeping**

   a. Documentation of all temporary assignments must be maintained for GME reimbursement purposes.
   b. Rotation assignments for all trainees must be entered and tracked in New Innovations to appropriately capture the FTE data for IRIS.
Neurosurgery Duty Hour Policy

It is the policy of the Department of Neurological Surgery to fully comply with both 405 regulations, i.e. New York State regulations (which are in effect for New York University Hospitals Center and Bellevue Hospital Center), as well as ACGME regulations, i.e. national regulations (which are in effect for the New York Campus of the Department of Veterans Affairs New York Harbor Healthcare System).

The Program Director discusses duty hour regulations with the Residents numerous times throughout the duration of the training Program, starting with orientation, and at each of semiannual individual meetings with each resident. He also reviews these regulations with faculty members at faculty and Program meetings and during his day-to-day running of the Program. This is also done in the context of teaching about the adverse effects of fatigue.

The program director, site directors, and clinical service chiefs are accountable for ensuring strict compliance with all work hours policies. The faculty are asked to assess duty hour compliance and fatigue with each Resident rotating on all clinical services.

The GME Committee receives periodic reports on work hour compliance as part of the QA process. Duty hours are defined as all clinical and academic activities related to the educational program: patient care, both inpatient and outpatient, administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities, time spent off site engaging in at home call activities, and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site. The NYU-Department of Neurological Surgery fully supports the Resident Work Hour Limitations established by New York State 405 Regulations, the Neurological Surgery Residency Review Committee and the ACGME.

Moonlighting is strictly prohibited by the NYU Department of Neurological Surgery.

Minimum Time Off between Scheduled Duty Periods is as follows:

- PGY-1 residents should have 10 hours, and must have eight hours, free of duty between scheduled duty periods.
- Intermediate-level residents (PGY 2-5) should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.
- Residents in the final years of education (PGY 6-7) must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.
  - This preparation must occur within the context of the 80-hour,
maximum duty period length, and one-day-off-in-seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty. The site directors and the program director strictly monitor circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by residents in their final years of education.

Maximum Frequency of In-House Night Float:

NYU Department of Neurological Surgery does not participate in in-House Night Float

Maximum In-House On-Call Frequency

PGY-2 residents and above must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).

At-Home Call

- Time spent in the hospital by residents on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.

- At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.

- Residents are permitted to return to the hospital while on at-home call to care for

- new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.

- Verbal inquires are made by the, site directors, and clinical service chiefs, or by The program director regarding if the At-home call was so taxing as to preclude rest or reasonable personal time for the resident. If this is the case resident is instructed to return home (car fare is provided) and not to return until the next schedule duty period at which point they are re-evaluated.

Our department in accordance has implemented procedures to relieve a postgraduate trainee due to fatigue (see Fatigue Policy). Stress and fatigue can be either self-reported or observed by other trainees, or responsible attending staff. All of our residents and faculty are required to take on line training modules to enable them to recognize undue stress or fatigue in themselves or others. Adequate backup through qualified physician extenders or supervising attending
physicians is always available and is utilized as needed to assure that patient care is not jeopardized by resident stress or fatigue. A stressed or fatigued resident is instructed to return home (car fare is provided) and not to return until the next schedule duty period at which point they are re-evaluated.

The facilities afforded the residents at NYU are there to ensure an appropriate environment for learning and providing patient care. This includes food service capabilities during assigned duty hours and suitable on-call rooms suitable for each resident on night duty in the hospital.

Duty hours are submitted for institutional review on a bi-annual basis (for the months of April and October) with plans of correction instituted for any violations. They are reviewed as a component of the resident’s professionalism during the resident semi-annual reviews. The program expects 100% compliance from all House Staff.

All duty hours violations should be reported immediately to the site directors, program director, Chief Resident or program manager. If need be, they can be reported anonymously to the compliance hotlines as below:

**How To Report Duty Hour Violations at NYU:**
An anonymous NYULMC Compliance Hotline has been established and is available 24 hours a day 7 days a week. For questions or concerns, faculty and staff can call the multilingual hotline and obtain a tracking number. Issues and concerns are forwarded to the Office of Compliance for follow-up. The Compliance Hotline number is (866)-NYU-1212.

**How To Report Duty Hour Violations at Bellevue:**
The Bellevue Resident Hotline can be found on the Bellevue Intranet Home Page. This hotline is completely anonymous.
On the left hand side:
1. Select “Patient Safet Hotline”
2. Then, go to the “blue” section
3. Select either one of the following:
   “Patient related issues”
   “Resident related issue”
   “Supply related issue”
   “Other”
4. fill in the fields
A self-selected password is required so you can follow-up on the response to your complaint.
New York State has longstanding regulations restricting Resident Duty Hours. Effective July 1, 2011, the Accreditation Council for Graduate Medical Education ("ACGME") adopted similar Duty Hour limitations.

All GME Training Programs at NYU are expected to meet all duty hour regulations for House Staff Officers as put forth by the ACGME, New York State Title 10 Section 405.4, and any other oversight bodies and report the findings to the Graduate Medical Education Committee and the Hospital Medical Board.
In its policy requirements, the ACGME states:

Programs and sponsoring institutions must educate residents and faculty members concerning the professional responsibilities of physicians to appear for duty appropriately rested and fit to provide the services required by their patients.

The program must be committed to and responsible for promoting patient safety and resident well being in a supportive educational environment.

The program director must ensure that residents are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.

The learning objectives of the program must:

- be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; and,

- not be compromised by excessive reliance on residents to fulfill non-physician service obligations.

The program director and institution must ensure a culture of professionalism that supports patient safety and personal responsibility. Residents and faculty members must demonstrate an understanding and acceptance of their personal role in the following:

a. assurance of the safety and welfare of patients entrusted to their care;

b. provision of patient- and family-centered care;

c. assurance of their fitness for duty;

d. management of their time before, during, and after clinical assignments;

e. recognition of impairment, including illness and fatigue, in themselves and in their peers;

f. attention to lifelong learning;

g. the monitoring of their patient care performance improvement indicators; and,

h. honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.

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4 https://www.acgme.org/acgmeweb/GraduateMedicalEducation/DutyHours.aspx
All residents and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. Physicians must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

In this document, all references to House Staff Officers are limited to trainees in ACGME, AOA, and CPME accredited specialty and sub-specialty programs.

II. Applicability of the Policy

This policy applies to House Staff Officers enrolled in all NYU Hospitals Center specialty and sub-specialty training programs.

III. Definitions (if applicable)

A. ACGME – Accreditation Council for Graduate Medical Education
B. AOA – American Osteopathic Association
C. Call –
   a) At-Home Call (or pager call) is call taken from outside the assigned institution;
   b) In-House Call is comprised of Duty Hours beyond the normal workday, when House Staff Officers are required to be immediately available in the assigned institution.
D. CPME - Council on Podiatric Medical Education
E. Program Director – Director of Residency or Fellowship Training
F. Duty Hours – Include all clinical and academic activities of the Resident; i.e., patient care (both inpatient and outpatient), administrative duties related to patient care, transfer of patient care, time spent in-house on-call, scheduled academic activities such as conferences, and any moonlighting activities. Duty Hours do not include reading and preparation time spent away from the duty site.
G. NYULMC – New York University School of Medicine and NYU Hospitals Center
H. Residents or House Staff Officers – All trainees enrolled in NYU Hospitals Center ACGME, AOA, or CPME -accredited specialty and sub-specialty training programs that involve clinical duties.
I. **Fatigue Management** – Recognition by either a resident or supervisor of a level of resident fatigue that may adversely affect patient safety and enactment of a solution to mitigate the fatigue.

J. **Strategic napping** – Short sleep periods, taken as a component of fatigue management, which can mitigate the adverse effects of sleep loss.

K. **External Moonlighting** – Voluntary, compensated, medically-related work performed outside the institution where the resident is in training or at any of its related participating sites.

IV. **Policy**

A. **Monitoring and Reporting Procedures** - Duty hours must be entered into New Innovations for a minimum of four weeks, twice over the course of an academic year (April and October). All programs must track duty hours during these required tracking times. Programs can individually require more tracking be completed within their program in addition to these set periods of time.

   1. Each resident is responsible for direct entry of honest and accurate reporting of their own duty hour information into the New Innovations (NI) system.

   2. New Innovations will allow programs the option to establish an automated email announcement to be sent to all residents who have not completed their duty hour calendar for the specified period of time.

   3. A global set of duty hour types are available to all programs to ensure reported data is consistent across programs.

   4. Programs should appropriately remediate any residents or fellows who do not enter Duty Hours into New Innovations

   5. Program Directors are responsible for reviewing all duty hour violations reported during the two required monitoring periods. The Program Director will “sign-off” on all violations where this option is available.

   6. The Program Director should review all violations, and make adjustments to program schedules or processes when recurrent violations are noted.

   7. Consecutive reporting periods will generate a required ‘Performance Improvement Plan’ to correct the deficiency to be submitted to the DIO and reported to the GMEC by the Program Director.

   8. The GME Office utilizes a standard report from New Innovations to track data relating to both reporting compliance and duty hour violations and report to the GMEC, and the GMEC will report to the Hospital Medical Boards for the two required monitoring periods.
B. **Regulations** - *New York Codes, Rules and Regulations (NYCRR), Title 10, Section 405.4*, and ACGME *Final Requirements, “Resident Duty Hours Language,”* promulgate Duty Hour restrictions in order that the working conditions and hours of House Staff Officers promote the provision of quality medical care. The regulations establish the following limits on Resident Duty Hours:

C. **Maximum Hours of Work per Week** – Duty hours must be limited to 80 hours per week, averaged over a four week period, inclusive of all in-house call activities and all moonlighting

D. **Duty Hour Exceptions** – Although a Review Committee may grant exceptions for up to 10% or a maximum of 88 hours, the GMEC has determined they cannot approve any requests since they would be in conflict with the NYS Duty Hour Regulations.

i. **Moonlighting**

   1. Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program.

   2. Time spent by House Staff Officers in Internal and External Moonlighting must be counted towards the 80-hour Maximum Weekly Hour Limit.

   3. PGY-1 House Staff Officers are not permitted to moonlight.

   4. House Staff Officers on J-1 Visas.

ii. **Mandatory Time Free of Duty** – House Staff Officers must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days. House Staff Officers may only work a total of 12 consecutive days.

iii. **Maximum Duty Period Length**

   1. Duty periods of PGY-1 House Staff Officers must not exceed 16 hours in duration.

   2. Duty periods of PGY-2 House Staff Officers and above may be scheduled to a maximum of 24 hours of continuous duty in the hospital. Programs must encourage House Staff Officers to use alertness management strategies in the context of patient care responsibilities. Strategic napping, especially after 16 hours of continuous duty and between the hours of 10:00 p.m. and 8:00 a.m., is strongly suggested.

   a. It is essential for patient safety and House Staff Officers education effective transitions in care occur. House Staff Officers may be allowed to remain on-site in order to accomplish these tasks; however, this period, referred to as
transitional time, must be no longer than an additional three hours.

b. House Staff Officers must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.

c. In unusual circumstances, House Staff Officers, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family

   i. Under those circumstances, the House Staff Officer must:

      a. Appropriately hand over the care of all other patients to the team responsible for their continuing care; and,

      b. Document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.

iv. Minimum Time Off between Scheduled Duty Periods

   1. PGY-1 House Staff Officers should have 10 hours, and must have eight hours, free of duty between scheduled duty periods.

   2. Intermediate-level House Staff Officers [as defined by the Review Committee] should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

   3. House Staff working ER shifts must not exceed 12 hours of duty, must have 12 hours off between shifts. Transitional time is not allowed.

   4. House Staff Officers in the final years of education [as defined by the Review Committee] must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.

      a. This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in-seven standards. While it is desirable that House Staff Officers in their final years of education
have eight hours free of duty between scheduled duty periods, there may be circumstances [as defined by the Review Committee] when these House Staff Officers must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

v. Maximum Frequency of In-House Night Float

1. House Staff Officers must not be scheduled for more than six consecutive nights of night float.

2. [The maximum number of consecutive weeks of night floats, and maximum number of months of night float per year may be further specified by the Review Committee.]

vi. Maximum In-House On-Call Frequency

1. PGY-2 House Staff Officers and above must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).

vii. At-Home Call

1. Time spent in the hospital by House Staff Officers on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.

   i. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.

   2. House Staff Officers are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.

V. Policy Enforcement

A. Violation of Duty Hour Limitations - Noncompliance with NYCRR, Title 10, Section 405.4, and/or ACGME requirements for Duty Hours in the Learning and Working Environment is a breach of policy that could jeopardize the accreditation status of the Resident's program and subject NYU to considerable financial penalties.
B. **Disciplinary Action** - Refer to the NYU GME “Corrective Action and Disciplinary Policy for House Staff” for relevant disciplinary action policy and procedure for compliance.

VI. **Related Policies** (if applicable)

A. Corrective Action and Disciplinary Policy for House Staff
B. Alertness Management/Fatigue Mitigation

VII. **Legal Authority/References** (if applicable)

A. NYCRR, Title 10, Section 405.4
B. ACGME Requirements for Duty Hours in the Learning and Working Environment
Evaluation Policy

The NYU Department of Neurosurgery Residency Program evaluates all faculty and trainees using an objective assessment of competence in the 6 ACGME competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. Our evaluations are performed using the New Innovations system. Timely evaluations are assured through the NI system, which automatically sends reminders to evaluators until evaluations are completed, which is currently set on a quarterly basis. All residents are provided access to evaluations via NI in a de-identified format and feedback discussed at both semi-annual review meetings. The Clinical Competency Committee receives feedback on a semi-annualized basis during faculty review meetings conducted with the Chair of the Department.

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 07/01/2013
Reissue Date: 01/01/2016
Evaluation for Residents and Fellows

I. Summary of Policy

The Accreditation Council for Graduate Medical Education (ACGME and the American Osteopathic Association (AOA) require a written set of policies and procedures for resident and fellow evaluation. The procedures are designed to be fair to residents/fellows, patients under care, and the training program and are applicable to all residents/fellows in training at New York University School of Medicine/NYU Hospitals Center (“NYU”). All residents and fellows must be evaluated at least semi-annually. A resident whose performance is deemed less than satisfactory should be notified of that conclusion, both verbally and in writing, as soon as it is determined, in accordance with the provisions of the Corrective Action and Disciplinary Policy for House Staff.

All further references in this document, to residents shall include fellows.

II. Definitions

A. ACGME – Accreditation Council for Graduate Medical Education

B. Director – Director of Residency or Fellowship training

C. GME – NYU Graduate Medical Education Office

D. NYU – NYU Hospitals Center

E. AOA – American Osteopathic Association
F. **Sponsoring Institutions** - NYU School of Medicine and NYU Hospitals Center

III. Evaluation

The program director must appoint the Clinical Competency Committee (CCC) for the ACGME program or the Medical Education Committee (MEC) for AOA programs.

- At a minimum the Clinical Competency Committee or Medical Education Committee must be composed of three members of the program faculty.
- Others eligible for appointment to the committee include faculty from other programs and non-physician members of the health care team.

There must be a written description of the responsibilities of the Clinical Competency Committee.

The Clinical Competency Committee should:

- Review all resident evaluations semi-annually;
  - Prepare and assure the reporting of Milestones evaluations of each resident semi-annually to ACGME; and,
  - Advise the program director regarding resident progress, including promotion, remediation, and dismissal.

Formative Evaluation

The Faculty must evaluate resident performance in a timely manner during each rotation or similar educational assignment, and document this evaluation at completion of the assignment.

The program must:

- Provide objective assessments of competence in patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice based on the specialty-specific Milestones;
- Use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff);
• Document progressive resident performance improvement appropriate to educational level; and

• Provide each resident with documented semiannual evaluation of performance with feedback, or more frequently based on ACGME program requirements. AOA accredited programs must also document formative feedback to interns on a quarterly basis.

• The evaluations of resident performance must be accessible for review by the resident, in accordance with institutional policy.

Summative Evaluation

• The specialty-specific Milestones must be used as one of the tools to ensure residents are able to practice core professional activities without supervision upon completion of the program.

• The program director must provide a summative evaluation for each resident upon completion of the program.

This evaluation must:

• Become part of the resident’s permanent record maintained by the institution, and must be accessible for review by the resident in accordance with institutional policy

• Document the resident’s performance during the final period of education; and,

• Verify that the resident has demonstrated sufficient competence to enter practice without direct supervision.

Residents' Rights - Evaluations maintained in the resident’s department file must be accessible to the resident. If a resident disagrees with or elects to comment on statements included in a written evaluation in his/her file, the resident has the right to submit a written response, which shall become part of the resident’s department file.

Basis for Evaluations - Each resident shall be evaluated based on written and oral feedback from faculty, peers, patients, self, and other professional staff at NYULMC and all affiliated sites. Evaluations shall be based on the written goals and objectives of the residency/fellowship program and on the assessment of a resident’s specific knowledge, skills, and attitudes in each of the following areas:

I. Professional competence, clinical performance, and judgment including, but not limited to:
a) **Patient care and Procedural skills** - Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

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

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

d) **Interpersonal and communication** - Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

e) **Professionalism** - Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

f) **Systems-based practice** - Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

g) **Osteopathic Philosophy, Principles and Manipulative Treatment (AOA Programs ONLY)** - AOA residents are expected to understand and apply the osteopathic principles (OPP) appropriate to the care of patients.

Compliance with established practices, rules, regulations, procedures, and policies of NYU.

1. Completion and verification of educational and training requirements.

   a. Compliance with standards of professional conduct as set forth in New York State law and/or applicable codes of professional ethics.

   b. In addition, the resident should:
• Develop a personal program of learning to foster continued professional growth with guidance from the teaching staff;
• Participate fully in the educational and scholarly activities of their program
• and, as required, assume responsibility for teaching and supervising other residents and students;

2. Participate in appropriate institutional committees and councils whose actions affect their education and/or patient care;

3. Submit to the program director or to a designated institutional official at least annually, confidential written evaluations of the faculty and of the educational experiences.
• Each resident also must participate actively in scholarly activity. Scholarship is defined as one of the following:
  The scholarship of discovery, as evidenced by peer-reviewed funding or publication of original research in peer-reviewed journals.

4. The scholarship of dissemination, as evidenced and in accordance with the following:

   All residents are required to have submitted for publications at least 2 articles: annually: This may include peer review articles, editorial articles, research related articles, and/or book chapters

   Resident presentation at regional, or national professional and scientific society meetings (e.g. cases, reports or clinical series) is encouraged.

5. Active participation in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship; the offering of guidance and technical support (e.g., research
• design, statistical analysis) for residents involved in research;
and the provision of support for resident participation, as appropriate, in scholarly activities.
Fatigue Mitigation Policy

New York University Neurosurgery Program, in compliance with the New York State Department of Health Regulations and ACGME program requirements, requires that all residents be monitored for signs of fatigue. It is the responsibility of the Program Director, site directors, and clinical service chiefs to monitor the on-call and assignment schedules of all post graduate trainees to ensure that residents are receiving ample time for rest, in compliance with NYS and ACGME duty hour regulations. Our program educates all of our faculty and residents about the signs and symptoms of fatigue and methods of fatigue mitigation to manage the potential negative effects of fatigue on patient care and learning by using the Sleep, Alertness, and Fatigue Education in Residency [SAFER] on line educational resources found on the NYU GME website Sleep, Alertness, and Fatigue Education in Residency [SAFER].

Any post-graduate trainee who is experiencing fatigue should immediately notify his/her program of his/her state of fatigue. Likewise, when a program director, site directors, or clinical service chiefs, or chief residents determine or identify that a resident is too fatigued to perform his/her duties effectively, the program director will arrange for the resident to be temporarily relieved from all on-call and clinical duties. Adequate backup through qualified physician extenders or supervising attending physicians is always available and is utilized as needed to assure that patient care is not jeopardized by resident stress or fatigue and to ensure continuity of patient care in the event that a resident may be unable to perform his/her patient care duties. Adequate sleep facilities options are provided for fatigued residents but, in general a stressed or fatigued resident is instructed to return home (car fare is provided) and not to return until the next schedule duty period at which point they are re-evaluated. It is the responsibility of the Program Director / designee to notify the appropriate individuals of the change in the on-call and clinical assignment schedule.

As stated in the duty hours policy, all duty hours violations should be reported immediately to the site directors, program director, Chief Resident, and/or program manager. If need be, they can be reported anonymously to the compliance hotlines as listed above.

Please note this is the departmental policy which is supplemental to the institutional policy listed below

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 09/16/2011
Reissue Date: 10/31/2014
Alertness Management/Fatigue Mitigation

I. Policy Purpose
In 2010, the Accreditation Council for Graduate Medical Education (ACGME) set new standards for House Staff Officer well-being based on recommendations made by the Institute of Medicine (IOM). One of the new standards was the need to set more specific requirements for alertness management and fatigue mitigation strategies designed to ensure continuity in both patient care and resident safety.

II. **Applicability of the Policy**

Applies to House Staff Officers enrolled in all NYU Hospitals Center specialty and subspecialty training programs.

III. **Definitions** (if applicable)

A. GME – Office of Graduate Medical Education  
B. ACGME – Accreditation Council for Graduate Medical Education  
C. IOM – Institute of Medicine

IV. **Policy**

A. The GME Training Program must:  
   a. Educate all faculty members and House Staff Officers to recognize the signs of fatigue and sleep deprivation  
      i. This education must be given to all program faculty and house staff officers via the Sleep Alertness and Fatigue Education in Residency (SAFER) module. This will partially satisfy the ACGME requirements.  
   b. Educate all faculty members and House Staff Officers in alertness management and fatigue mitigation processes;  
      ii. All House Staff officers and Program Faculty, must complete the SAFER online tutorial on Sleep Alertness and Fatigue Management on IDevelop.  
   c. Adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning, such as naps or back-up call schedules.

B. Each program must have a formal process to ensure continuity of patient care in the event that a House Staff Officer may be unable to perform his/her patient care duties. This process must be communicated to program trainees and faculty.

C. The sponsoring institution must provide adequate sleep facilities and/or safe transportation options for House Staff Officers who may be too fatigued to safely return home.
Impairment Policy

NYU Hospitals Center
Issuing Department: Graduate Medical Education
Effective Date: 09/01/2013
Policy Name: Impairment Policy for Residents and Fellows

I. Summary of Policy

The Accreditation Council for Graduate Medical Education (ACGME) requires a written policy and procedure for addressing resident and fellow impairment. The procedures are designed to be fair to residents/fellows, patients under care, and the training program and are applicable to all residents/fellows in training at New York University School of Medicine (“NYU”).

All further references in this document, to residents shall include fellows.

II. Definitions

ACGME – Accreditation Council for Graduate Medical Education
CPH – Committee on Physicians’ Health of the Medical Society of the State of New York
Director – Director of Residency or Fellowship training program
GME – Office of Graduate Medical Education

NYU – New York University School of Medicine

OPMC – NYS Office of Professional Medical Conduct

House Staff Officer - a physician who is enrolled in an accredited or non-accredited NYUSoM Training Program for a clinical specialty or subspecialty this includes all Residents and Clinical Fellows.

III. Physician Impairment

If, at any time, the Director has reasonable cause to suspect that a resident’s behavior is altered because of a physical or mental impairment or the use of drugs, narcotics, or alcohol, the resident shall, at the Director’s request, submit to a physical and/or mental examination by a nurse practitioner and/or physician(s)
acceptable to the NYU Hospitals Center Employee Health Service.

Reasonable cause shall include, but not be limited to:

- unsatisfactory, excessive, or deteriorating attendance record;
- unexplained absences;
- missed appointments,
- declining productivity or other unsatisfactory performance,
- accosting, striking, or assaulting an employee, patient, or visitor other than in self-defense;
- returning to work following participation in a drug or alcohol rehabilitation program or leave of absence;
- unkempt appearance, poor hygiene; trembling, slurred speech; bloodshot or bleary eyes;
- complaints or allegations of impairment by anyone interacting with the house staff officer;
- arguments, bizarre behavior;
- irritability, depression, mood swings, irresponsibility;
- poor memory, poor concentration;
- unexplained accidents or injuries to self;
- neglect of family, isolation from friends;
- DWI arrest, DUI violations, or any other arrest involving drugs or alcohol;
- financial and/or legal problems;
- unavailability by pager, phone or email;
- unexplained rounding at irregular times;
- loss of interest in professional activities, social or community affairs;
- neglect of patients, incomplete charting, or neglect of other clinical or academic responsibilities;
- inappropriate treatment or dangerous orders;
- excessive prescription writing;
- unusually high doses or wastage noted in drug logs;
- noticeable dependency on alcohol or drugs to relieve stress;
- intoxication at social events or odor of alcohol on breath while on duty; or
- any other behavior which suggests that the employee may be unfit for work or which may be reasonably attributable to the use of drugs, narcotics, or alcohol.

The Director shall, prior to making such request, consult with the NYU GME. The purpose of the examination(s) shall be to determine if the resident is free from health impairments which pose potential risk to patients or personnel or which may interfere with the performance of the resident's clinical duties. The examination shall include, but not be limited to, a breathalyzer, urinalysis, blood, and/or other similar tests to determine if drugs, narcotics, and/or alcohol are in the resident's system. Upon requesting a fitness for duty examination, the
Director must explain to the house staff officer that failure to undergo such examination when requested shall be grounds for immediate suspension and/or dismissal from the training program in accordance with the provisions of Corrective Action and Disciplinary Policy Section IV.A.4, Summary Suspension, and Section IV.A.5, Dismissal.

Pending and following medical evaluation, the resident may be placed on a medical leave of absence, administratively referred for further evaluation and recommended treatment, and/or subject to disciplinary action up to and including termination of the residency in accordance with The Corrective Action and Disciplinary Policy. The Director shall consult with the NYU GME prior to any decisions regarding medical leave of absence, treatment referral or disciplinary action.

IV. Reporting

Hospitals are required to report to the New York State Office of Professional Medical Conduct (OPMC) whenever any of the following actions are taken for reasons related in any way to alleged mental or physical impairment: denial, suspension, restriction, termination, or curtailment of, or voluntary or involuntary resignation or withdrawal from, training, employment, association, or professional privileges, or the denial of certification of completion of training.

All licensed health professionals, including physicians, are required by state law to report colleagues whom they suspect may be practicing while impaired. Failure to report is, in itself, professional misconduct. For attending physicians, the report can be made to the hospital’s chief medical officer, who must then inform OPMC; in the case of residents and fellows, the report should be made to the Program Director or the Senior Administrative Director for NYU GME, who must then inform OPMC.

Physicians suspected of having problems with alcohol, drugs, or mental illness, but whose ability to practice is not impaired, may be reported to the Committee on Physicians’ Health of the Medical Society of the State of New York (CPH). All calls are confidential. CPH identifies, refers to treatment, and monitors impaired physicians. The program is voluntary and participation is confidential. The names of physicians participating in the program are not shared with OPMC without a participant’s approval unless there is a failure to comply with treatment recommendations. A referral to CPH does not exempt physicians from their duty to report colleagues practicing with a suspected impairment to OPMC.

Nothing in this policy relieves the institution of its obligations to report incidents of possible professional misconduct under applicable laws and regulations. The results of drug or alcohol testing and matters related thereto shall be kept confidential except to the extent necessary to implement this policy.
Neurosurgery Moonlighting Policy

The NYUSOM Residency Program in Neurological Surgery DOES NOT allow moonlighting under any circumstances.
On-call Policy

Every resident is expected to take assigned call as set forth by schedules available on AMION and through the Chief Neurosurgery Residents. Pagers will be worn at all times during call and pages will be answered in a timely fashion.

The objective of on-call activities is to provide residents with continuity of patient care experiences throughout a 24-hour period. In-house call is defined as those duty hours beyond the normal workday when residents are required to be immediately available in the assigned institution.

The call schedule for each hospital is primarily the responsibility of the PGY 5 resident. Problems with, and changes in the schedule must be approved by the Chief Resident. Patient care and educational objectives must be monitored.

On-call rooms are available at Bellevue Hospital and Tisch Hospital for resident use. Resident work hours should be monitored by the chief resident on an on-going basis, with the aim of modifying call policies and manpower decisions to insure continued full compliance with the ACGME requirements.

NYU Department of Neurological Surgery does not participate in in-House Night Float

Maximum In-House On-Call Frequency

PGY-2 residents and above must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).

At-Home Call
  o Time spent in the hospital by residents on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.
  o At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.
  o Residents are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.
  o Verbal inquires are made by the, site directors, and clinical service chiefs, or by The program director regarding if the At-home call was so taxing as to preclude rest or reasonable personal time for the resident. If this is the case resident is instructed to return home (car fare is provided) and not to
return until the next schedule duty period at which point they are re-evaluated
Out-rotation/Elective Policy

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 04/21/11
Reissue Date: 01/01/2016
Out-Elective Policy and Procedure

I. Policy Purpose

Over the course of a House Staff Officer’s post-graduate training, s/he may be permitted a program-specific number of electives. Accordingly, the Resident/Fellow may request authorization to explore a clinical or research experience not available through the New York University School of Medicine (“NYUSoM”) /NYU Hospitals Center (“NYUHC”) by seeking approval for an Out-Elective.

II. Applicability of the Policy

House Staff Officer’s enrolled in ACGME-accredited, AOA-accredited, and CPME accredited specialty and sub-specialty programs

III. Definitions (if applicable)

A. ACGME – Accreditation Council for Graduate Medical Education
B. AOA – American Osteopathic Association
C. CPME- Council on Podiatric Medical Education
D. Agreement – Out-Elective Program Letter of Agreement
E. CPME- Council on Podiatric Medical Education
F. Director – NYU Director of Residency Training
G. House Staff Officer - a physician who is enrolled in an Accredited or non-Accredited
H. NYUSoM Training Program for a clinical specialty or subspecialty this includes all Residents and Clinical Fellows.
I. NYUHC- NYU Hospitals Center
J. GME – Office of Graduate Medical Education
K. **Host Institution** - The site of approved clinical study undertaken outside the NYU System. A Host Institution can be a hospital, a private practice office, or any other clinical entity.

L. **NYUSOM** - New York University School of Medicine

M. **NYUHC** - NYU Hospitals Center

N. **Out-Elective** - A program of study that is arranged on an individual basis and hosted by an institution that is outside the NYU System (as defined in this Section II). Out-Electives must be authorized by the NYU GME and be consistent with Residency Review Committee requirements.

O. **Request** – Out-Elective Request Form

P. **Standing Rotation** - A Standing Rotation is a required component of a residency-training program that takes place at a hospital or other setting where NYU has an institutional affiliation agreement. *This policy does not pertain to Standing Rotations.*

Q. **Supervisor** – Host Institution faculty responsible for the supervision and evaluation of an NYU Resident/Fellow.

IV. **Policy**

The Accreditation Council for Graduate Medical Education (“ACGME”) requires that Out-Electives a) be based on a clear educational rationale; b) have clearly stated learning objectives and activities; and c) provide resources not otherwise available within the House Staff Officer’s training program. In addition, Out-Electives must be of sufficient length to ensure a quality educational experience and should provide sufficient opportunity for continuity of care. Exceptions to those requirements must be justified and approved by the Out-Elective Subcommittee of the GMEC.

Out-Electives must be selected with the advice and approval of the House Staff Officer’s NYU Director of Residency Training (“Director”), who will base his/her recommendation on the House Staff Officer’s academic standing and factors which include whether or not the Out-Elective experience:

- Is available within the NYUHC;
- Enriches, but not replaces, the Resident/Fellow’s core experiences;
• Enhances the residency experience; and
• Provides sufficient and appropriate supervision to the Resident/Fellow.

When House Staff Officer’s education occurs outside NYU, NYU continues to have responsibility for the quality of that educational experience and must retain authority over the House Staff Officer’s activities.

In this document, references to Resident/Fellows are limited to NYU Resident/Fellows enrolled in specialty and sub-specialty programs accredited by the ACGME, AOA, and CPME.

V. Procedure

L. Initial Considerations - While it is within the Director’s discretion to grant initial approval for Out-Elective study to a Resident/Fellow in his/her program, under normal circumstances acceptable justification should include affirmation that the proposed training experience is not available within NYU.

M. Additional Acceptable Justification - The Director may, however, consider requests that:
  • Provide defined educational opportunities specific to the House Staff Officer’s career goals;
  • Are deemed valuable to NYU; or
  • Are humanitarian in nature.

N. Requirements.
1. Good Academic Standing - A House Staff Officer must be in good academic standing, as evidenced by his/her performance evaluations.
2. PGY Year. - A House Staff Officer must be a PGY-2 or higher to be eligible for an Out-Elective.

O. Compensation and Malpractice Insurance Coverage - Arrangements for the House Staff Officer’s compensation and malpractice insurance coverage during the Out-Elective must be in place (see Sections IV, Medical Licensure and Malpractice Coverage, and V, Financial Considerations, in this document).

P. Program-Specific Guidelines - The Director will establish general Out-Elective guidelines for his/her program consistent with this Out-Elective Policy and Procedure.
Q. **Selection of Out-Elective** - A House Staff Officer interested in pursuing an Out-Elective must select an area of interest and a location for such training. The House Staff Officer then must contact the supervising attending physician at the prospective Host Institution and obtain an informal promise of commitment from him/her.

R. **Completion of the Out Elective Request Form.**

1. **House Staff Officer’s Responsibility.** The House Staff Officer must initiate the application process at NYU by completing an Out-Elective Request Form, available online at the GME Website under Policies and Procedures. The Request form must be signed and approved by the Host Institution Supervisor. The House Staff Officer must submit the completed form to his/her Director for approval and signature.

2. **Director’s Responsibility.** The Director must approve or deny the House Staff Officer’s Request in writing:
   a. **Denial.** If the Director denies the House Staff Officer’s Request, the Director will return the form to the Resident/Fellow so indicating. A copy of the denied Request will be maintained in the House Staff Officer’s department file. The decision of the Director is final and not subject to appeal.
   b. **Approval.** In cases where the Director approves the Request, he/she will complete the appropriate area of the form, initiate an Out-Elective Program Letter of Agreement (“Agreement”), and submit a summary statement summarizing the elective and addressing the following criteria:
      • The educational value of the experience
      • Unique value the experience provides
   c. **Submission.** Submit all documents to the NYU Office of GME (three months prior to the scheduled out-elective). The elective will then need the approval of the Out-Elective Subcommittee of the GMEC, which meets quarterly.
   d. **NYU GME’ Responsibility.** The NYU Office of GME will forward the completed and signed Request and Agreement to the Out-Elective Subcommittee for final execution.

S. **Notification** - Once the Request and Agreement are fully executed, the NYU Office of GME will notify the Director and the Resident/Fellow of the final approval in writing.

T. **Recordkeeping** - Copies of the approved Request and Agreement will be sent to the House Staff Officer and maintained in the files of the NYU Office of GME. The original Request and Agreement will be maintained in the Resident/Fellow’s department file.
U. **Evaluation** - The Director must ensure that an evaluation of the House Staff Officer’s performance is obtained from the Supervisor or his/her designee at the end of the Out-Elective. The Director or his/her designee also should meet with the Resident/Fellow at the conclusion of the Out-Elective to discuss the experience and the evaluation with him/her.

V. **Continuity Experience** - For those programs that have continuity requirements, continuity experience must receive priority over other responsibilities and may be interrupted only for vacations and outside rotations located at too great a distance to allow Resident/Fellows to return.

VI. **Medical Licensure and Malpractice Coverage**

**A. Medical Licensure** - It is the responsibility of the House Staff Officer to understand and follow the applicable state licensure rules for House Staff Officer in Graduate Medical Education (“GME”) programs in the state in which s/he will be training. Many states require, at minimum, a training certificate to be issued by their state’s medical board prior to the commencement of any clinical activities; this requirement may include certain institutions within New York State.

**B. Malpractice Coverage** - Malpractice coverage provided to House Staff Officer by NYU is effective only within the standard clinical training program as defined within current affiliation and/or program agreements; therefore, the Resident/Fellow has the primary responsibility for ensuring that a malpractice policy, provided by either the Host Institution or by the NYU Insurance Office, is in force to cover his/her Out-Elective activities.

It is the policy of NYU School of Medicine that House Staff Officer who elect to participate in an out-elective contact the Host Facility to ensure that the Host Facility will provide professional liability insurance through a qualified professional liability insurance carrier or through self insurance to cover the Resident/Fellows as applicable in their activities at the Host Facility.

If the Host Facility elects not to cover the House Staff Officer and if the out-elective is needed to complete ACGME requirements for the training program, the Resident/Fellow may request that the NYU Insurance Office authorize malpractice coverage for the out-elective. The House Staff Officer will not be covered by NYU malpractice insurance during an out-elective in the absence of a written malpractice insurance coverage authorization from the Host Facility.
NYU Insurance Office. In most cases, this will result in a fee charged to the department for the extended coverage.
Professionalism Policy

NYU School of Medicine
Issuing Department: Graduate Medical Education
Effective Date: 04/08/2013
Reissue Date: 01/01/2016
Professionalism in Graduate Medical Education

I. Summary of Policy

The ACGME Common Program Requirements state the following with regard to professionalism in Graduate Medical Education:

Professionalism
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:
IV.A.5.e).(1) compassion, integrity, and respect for others;
IV.A.5.e).(2) responsiveness to patient needs that supersedes selfinterest;
IV.A.5.e).(3) respect for patient privacy and autonomy;
IV.A.5.e).(4) accountability to patients, society and the profession; and,
IV.A.5.e).(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

II. Policy Purpose

In addition to policies and expectations set by other organizations and institutions (such as the ACGME, AOA, AAMC, Joint Commission, and hospital policies), this policy sets the professionalism expectations of House Staff Officers and faculty in Graduate Medical Education at NYULMC.

III. Applicability of the Policy

This policy applies to all House Staff Officers at NYULMC. Additionally, when applicable, this policy sets expectations for program directors and faculty.

IV. Definitions (if applicable)
A. **House Staff Officer** - a physician who is enrolled in an accredited or non-accredited NYUSoM or NYUHC Training Program for a clinical specialty or subspecialty this includes all Residents and Clinical Fellows.

B. **Sponsoring Institutions** - NYU School of Medicine and NYU Hospitals Center

V. **Policy**

A. **Professionalism**

a. **Responsibilities:** All House Staff Officers are expected to:
   
i. Adhere to The NYULMC Code of Conduct and all policies of Office of GME, NYULMC, HHC, VA, and any other policies that apply to House Staff Officers or the institution/location at which they are working.

b. **In the Curriculum**
   
i. In the Common Program Requirements, the ACGME states that evaluation and teaching of professionalism “is most effective when done in the context of patient care and related activities, (e.g., conducting QI projects, leading a team, presenting M&M, reflections on practice, conversation with mentor.” Program Directors and faculty must ensure the integration of professionalism into all possible aspects of the curriculum.

   ii. Programs must incorporate education about the appropriate scenarios in which a House Staff Officer should ask for help. Each program must determine appropriate escalation procedures. These escalation procedures must be provided to House Staff Officers.

   iii. Programs must incorporate education about error reporting procedures for all locations at which House Staff Officers will work.

   iv. House Staff Officers must be appropriately educated about retaliation, how to recognize retaliatory actions, and the appropriate methods for dealing with such.

c. **Evaluations and Feedback:** Evaluations must be completed, as stipulated in the ACGME requirements and the NYU Evaluation Policy for Graduate Medical Education. In addition:

   i. Both the evaluator and the individual being evaluated are expected to respect diversity of opinion.

   ii. House Staff Officers must be open to accepting evaluations and feedback on their performance in all areas of training, and incorporate evaluations and feedback into their practice.
d. Error Reporting, Concerns, and Complaints: House Staff Officer are at the front line of patient care, and are expected to report any errors or incidents using the appropriate methods. This practice is essential to patient care and quality improvement, and should be encouraged. In addition:

i. House Staff Officers are expected to submit any concerns or complaints as defined by the “House Staff Officer Concerns or Complaints” Policy. The appropriate mechanisms for submitting such information at each institution are available in this policy.

ii. If a situation or concern does not need to go through the formal processes listed above, House Staff Officers should approach their supervisor, the next highest ranking individual if the issue involved the supervisor, the Office of GME, and/or the Associate Dean of Graduate Medical Education.

iii. Programs are responsible for educating House Staff Officers about the error reporting methods at each hospital. Please refer to the “In the Curriculum” section of this policy.

iv. Programs must ensure that error reporting mechanisms are available to House Staff Officers at all times.

e. Quality Improvement and Patient Safety: House Staff Officers are expected to:

i. Participate in quality improvement and patient safety projects during their time of training.

ii. House Staff Officers are expected to be aware of quality improvement initiatives that are taking place at the hospitals in which they work. When possible and appropriate, House Staff Officers should actively participate in these initiatives.

iii. Programs are responsible for providing the appropriate education to House Staff Officers about institutional/hospital quality improvement initiatives.

B. Retaliation

a. In order to provide all House Staff Officers with a culture of safety, and to ensure that they feel comfortable reporting errors and providing feedback, asking for help, and reporting lapses in professionalism by colleagues, any and all retaliatory actions taken against a House Staff Officer should be escalated to his/her supervisor, or the next highest ranking individual in the event that the House Staff Officer’s supervisor is involved. Such incidents can also be
reported directly to the Office of GME, and the Associate Dean of Graduate Medical Education.

C. Unprofessional Behavior and Remediation
   a. Any lapses in professionalism will be handled according to the “Corrective Action and Disciplinary Policy for House Staff Officers.”
Recruitment and Selection Policy

Recruitment, selection, and appointment of residents is performed by Neurosurgery faculty, the program director, associate directors, site directors, and the department chair, under the oversight of the Graduate Medical Education Committee (GMEC) and the Office of Graduate Medical Education (OGME) in accordance with the Accreditation Council for Graduate Medical Education (ACGME). The application review process ensures fair and consistent consideration of all applicants to the NYU Internal Medicine Residency Training Program.

Recruitment and Selection

Applications for NYU's Neurosurgery Residency Training Program are processed through the National Residency Matching Program (NRMP) and the Electronic Residency Application Service (ERAS). A central application process has allowed for a streamlined approach to securing a residency position.

Written or e-mailed applications will not be considered. More information about ERAS may be obtained by visiting the AAMC website.

All requested documents will be reviewed by the Department of Neurosurgery House Staff Selection Committee, and selected candidates will be invited for an interview and tour of our medical campus. Due to the large number of applications received each year via ERAS, not all qualified candidates can be accommodated with interviews and tours. We ask for your understanding in this regard. Interviews generally take place in the latter part of the year, from November through January.

Appointments to the neurosurgery residency program are made through the National Residency Matching Program (NRMP) and commence before July 1 of each academic year.

Eligibility:

- A medical degree prior to residency program start date from one of the following:
  - Medical schools in the United States and Canada accredited by the Liaison Committee on Medical Education (LCME)
  - A passing score on USMLE Step I.
  - Three letters of Recommendation not including Dean's Letter
  - Current CV and personal statement on file.

Non-U.S. citizens must possess a Permanent Resident Card or an appropriate educational visa prior to starting a postgraduate medical education program. Please note that we accept
applications with documentation of J-1 Visa status, but cannot accept any other category of visas (e.g. H1B).
Neurosurgery Supervision and Scope of Practice Policy (including Escalation)

Supervision of Residents

The training program is structured to encourage and permit residents to assume increasing levels of responsibility appropriate with their individual progress, experience, skill, knowledge and judgment.

In the clinical learning environment, each patient must have an identifiable, appropriately credentialed and privileged attending physician who is ultimately responsible for that patient’s care. At Tisch Hospital it is the admitting faculty member. At Bellevue Hospital and at the Manhattan VA Medical center it is the on call faculty member/admitting faculty member or the Site Director.

This information should be available to residents, faculty members, consulting faculty and residents, the nursing staff, and patients.

Residents and faculty members must inform patients of their respective roles in each patient’s care.

Levels of Supervision

The program must demonstrate that the appropriate level of supervision is in place for all residents who care for patients. Supervision may be exercised through a variety of methods.

Some activities require the physical presence of the supervising faculty member. For many aspects of patient care, the supervising physician may be a more advanced resident or fellow. Other portions of care provided by the resident can be adequately supervised by the immediate availability of the supervising faculty member or resident physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of resident-delivered care with feedback as to the appropriateness of that care. In these instances the Clinical Competency Committee will review of care delivered or any issues that arise.

To ensure oversight of resident supervision and graded authority and responsibility, the program must use the following classification and levels of supervision:

- Direct Supervision by Faculty - faculty is physically present with the resident being supervised.
• Direct Supervision by Senior Resident same as above but resident is the direct supervisor.
• Indirect with Direct Supervision IMMEDIATELY Available Faculty – the supervising physician is physically present within the hospital or other site of patient care and is immediately available to provide Direct Supervision.
• Indirect with Direct Supervision IMMEDIATELY Available Resident same but direct supervisor is resident.
• Indirect with Direct Supervision Available the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
• Oversight - The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

The program director and faculty members assign the privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each resident.

The program director evaluates each resident’s abilities based on the specific criteria set forth in the departments Program Goals and Rotational Responsibilities document. When available, evaluation should be guided by specific national standards-based criteria.

Faculty members functioning as supervising physicians should delegate portions of care to residents, based on the needs of the patient and the skills of the residents.

Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow.

The program provides guidelines for circumstances and events in which residents must communicate with appropriate supervising faculty members, such as the transfer of a patient to an intensive care unit, or end-of-life decisions (see the supervisory flow chart below).

Guidelines for Resident Mandatory Communication with Attending
The following situations require mandatory direct communication with the faculty responsible for patient care, during routine working hours, or after hours and weekends:
1. Death
2. Suicide attempt
3. Violence requiring physical restraints

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4. Pregnancy (initial notification)
5. Transfer of care to another medical or surgical service
6. Any serious adverse event from pharmacologic or psychotherapeutic intervention
7. Any complex decision making process that the resident does not feel adequately qualified to undertake without immediate input from faculty

Any lapse in this process will be reported to the program director, who will monitor the reporting process and review monthly.

Each resident must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence. In particular, PGY-1 residents should be supervised either directly or indirectly with direct supervision immediately available. For every progression in level, curriculum, performance and over technical ability are considered prior to change or revision in SOP.

Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each resident and delegate to him/her the appropriate level of patient care authority and responsibility and Completion of the SNS Boot Camp

The specific overview of resident supervision and graded authority and responsibility using the classifications of supervision is found in our departmental Scope of Practice document (included), which is available online on New Innovations. This document is reviewed and updated as required by institutional policy by our Clinical Competency Committee.

The sample diagram below details procedure for escalation of issues regarding supervision, grievances, work hours or any other resident concerns.
Clinical Supervision Tisch - Adult

- Junior Resident
- Nurse Practitioner
- Chief Resident
- Faculty
- Division Director
- Program Director or Associate Program Director
- Chairman
- GME Office
- Consulting and/or Primary service faculty and residents
Clinical Supervision Bellevue

Intern/Junior Resident

Nurse Practitioner

Chief Resident

Consulting and/or Primary service faculty and residents

Faculty

Chief of Service

Program Director
Or Associate Program Director

Chairman

GME Office
Clinical Supervision VA

- Junior Resident
- Nurse Practitioner/PA
- Chief Resident
- Faculty
- Chief of Service
- Consulting and/or Primary service faculty and residents
- Program Director
  Or Associate Program Director
- Chairman
- GME Office
Terms and Conditions of Employment Policy

NYU Hospitals Center and New York University School of Medicine
Issuing Department: Graduate Medical Education

Effective Date: 07/01/2016
Reissue Date: 11/03/2016

Terms and Conditions of Employment Page: 1 of 8

I. Summary of Policy

This Policy includes the Oral Maxillofacial Surgery Programs. The first condition for appointment is successful completion of the credentialing and employment processes as described in the Credentialing of House Staff Officers policy. The Credentialing Policy can be found in the GME Website under Policies and Procedures. House Staff Officers must be able to furnish all required credential documents and be legally employable. All House Staff Officers are required to undergo and pass a drug toxicology screening, pre-employment background check, and fingerprint investigation prior to beginning work. Following initial appointment, House Staff Officer annual reappointment is dependent upon the successful completion of the advancement checklist and the satisfactory demonstration of clinical competence and professional standards, including completion of learning modules required by the affiliate hospitals. Any resident not completing the required modules will be required to petition the GME office for an extension of the deadline with the support of the program director in order to continue training without interruption.

II. Definitions (if applicable)

A. ACGME – Accreditation Council for Graduate Medical Education
B. CODA – Commission on Dental Accreditation
C. AOA – American Osteopathic Association
D. CIR – Committee of Interns and Residents
E. CPME – Council on Podiatric Medical Education
F. GME – Office of Graduate Medical Education
G. House Staff Officer – In this document, all references to House Staff Officers include trainees in specialty, subspecialty and non-specialty dental residency programs, whether or not ACGME, AOA, CPME or CODA accredited.
H. LOA – Leave of Absence
I. NYULMC – New York University Langone Medical Center (including New York University School of Medicine and NYU Hospitals Center).

J. NYU Lutheran – the NYU Lutheran Medical Center site of NYU Hospitals Center in Brooklyn, NY.

III. Policy

A. Financial Support - The educational stipend effective January 1st, 2016 based upon the level of postgraduate training, and subject to all applicable withholdings, is shown in the table below.

a. In addition, if a House Staff Officer has completed or trained in a non-ACGME, non-AOA training or non-CODA program, they will be placed at the Payroll level that equals the years completed in an ACGME or AOA accredited training program plus one. Please note: This will include non-ACGME or non-AOA Research Programs and Extra Year Chiefs in Medicine and Pediatrics.

<table>
<thead>
<tr>
<th></th>
<th>NYU BASE RATE (effective 7/1/16, including meal stipend)</th>
<th>Bellevue Salary (effective 7/1/16, including meal stipend)</th>
<th>NYU Lutheran Salary (effective 7/1/16, including meal stipend)</th>
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B. Licensure – NYU Health System policy on licensure is more restrictive than that of New York State. A full description of the Licensure Policy can be viewed on the GME website, under the “Policies and Procedures” section.

a. For House Staff Officers in ACGME-accredited AOA- accredited programs:

   i. A valid NYS Medical License (or limited permit if not eligible for license) may be required by individual program.

   ii. For all House Staff Officers entering NYU-sponsored, ACGME-approved and AOA-approved post-graduate training programs, licensure is not required by New York State Law, because House Staff Officers fall under the “resident” exception of New York State Education Law 6526(1).

   iii. A valid NYS Medical License is required for Moonlighting (refer to Moonlighting policy). Moonlighting credentialing is a lengthy process and House Staff Officers are encouraged to submit their applications early.

b. For House Staff Officers in CPME Accredited Programs

   A valid limited permit is required to begin training.

c. For House Staff Officers in CODA Accredited Programs

   A valid State License (or permit) may be required by the individual program or according to the training site’s state licensure requirements.

d. For House Staff Officers in Non-accredited Programs

   i. House Staff Officers in a non-accredited program MUST have a valid New York State License or a limited permit. House Staff Officers may not begin training without a license (or limited permit) and are required to maintain licensure for the entire training period.

1 http://www.med.nyu.edu/gme/policies-procedures/policies
ii. House Staff Officers may obtain a limited permit in lieu of a license if:

1. He/she does not meet citizenship requirements.

2. He/she is an American citizen who graduated from a foreign medical school but does not have three years of post-graduate training. The limited permit will be acceptable until the trainee becomes eligible for a license and the license application can be processed.

C. USMLE Step 3 - All House Staff Officers in ACGME-accredited programs must take USMLE Step 3 (or COMLEX-USA for DO’s) prior to beginning their final year of residency, and must provide acceptable documentation of such. This will include applicant House Staff Officers that are entering their final year in a NYU sponsored Residency Training program. Foreign National Graduates are required to take and pass USMLE Step 3 to be eligible for an H1B Visa. A full description of the Licensure Policy can be viewed on the GME website, under the “Policies and Procedures” section. All House Staff Officers in AOA-accredited programs must take and pass COMLEX 3 by the end of the PGY 2 year to continue training.

D. CPME Programs shall accept only graduates of colleges of podiatric medicine accredited by CPME. Applicants shall have passed the Parts I and II examinations of the National Board of Podiatric Medical Examiners.

E. Payroll/Union - There are two separate major payroll systems: NYULMC (Tisch, VA, NYU Lutheran and Hospital for Joint Diseases) and Bellevue Hospital Center. House Staff Officers are initially placed on one of the two payrolls as determined by their program. For the sake of parity, House Staff Officers in NYU School of Medicine-sponsored training programs will rotate between the Bellevue and NYULMC payrolls throughout their training period. The payroll changes occur no more frequently than at yearly intervals. When a House Staff Officer rotates between hospital payrolls, their benefits change with the rotation, but coverage is always continuous. House Staff Officer

2 http://www.med.nyu.edu/gme/policies-procedures/policies
health benefits are fully covered at all times during the payroll switch. While on Bellevue payroll, House Staff Officers are required to join the union, Committee of Interns and Residents (CIR). If you have any concerns regarding benefits coverage or any related pay issues, please feel free to discuss them during your interview or at anytime. For further information you may also contact the NYU Office of Graduate Medical Education at 212-263-5506.

F. **Vacation** – House Staff Officers are entitled to four weeks paid vacation per annum. Such vacation shall be taken at a time in agreement with the provisions of the vacation policy of the Residency Training Program and the annual rotation schedule. Vacation time is not accruable and will not be paid out if not taken during a given academic year.

G. **Leave** – House Staff Officers are entitled to medical, family, personal, and educational leaves. A full description of the Time-Off and Leave of Absence Policy can be viewed on the GME website, under the “Policies and Procedures” section. Credit toward completion of the Residency Training Program requirements, with respect to leave time, shall be determined by the program’s individual policy on the effect of taking a LOA on completion of the program.

H. **Professional Liability Insurance** - The House Staff Officer shall be provided with professional liability insurance coverage for the duration of training. Such coverage shall provide legal defense and protection against awards from claims reported or filed after the completion of the residency Training Program if the alleged acts or omissions are within the scope of the Residency Training Program. Such insurance coverage does not extend to outside employment, such as moonlighting.

I. **Medical and Disability Insurance** - Medical and disability insurance benefits will be made available to the House Staff Officers in accordance with the medical and disability insurance employee benefits of NYULMC or Bellevue Hospital Center depending on which institution has the House Staff Officers on its payroll at the time. The medical and disability insurance benefits are described in the new employee orientation materials of each hospital.

3 [http://www.med.nyu.edu/gme/policies-procedures/policies](http://www.med.nyu.edu/gme/policies-procedures/policies)

K. Housing Information – Applications and updated housing information will be provided via email after the Match, to each new resident and clinical fellow. Applications and information can be downloaded from http://redaf.med.nyu.edu/housing. Housing priority is given to PGY-1 and PGY-2 House Staff Officers relocating from out-of-town. However, after a random lottery, most House Staff Officers will not receive a housing offer through NYU due to limited availability. New residents not offered housing may re-apply and go on a waiting list.

All NYULMC students and staff may access the off-campus housing website http://redaf.med.nyu.edu/och. That site includes relocation information, including a link to CitiHabitats, a real estate agency which discounts its commissions for NYU affiliates. If current House Staff Officers log in with the Kerberos I.D. and password, they can access information on a lease guaranty program.

L. Meals and Laundry –
   a. Both Bellevue and NYULMC have an annual meal allowance of $2,900, included in the annual salaries stated above.
   b. NYU Lutheran House Staff Officers receive an annual meal allowance of $1,440 via FreedomPay. Lab coats and scrubs are supplied and laundered by the hospitals for House Staff Officers.

M. Book and Conference Stipend Reimbursement – The Book and Conference stipends were instituted to help offset expenses incurred during the trainee Academic Year by House Staff in relation to purchase of medical equipment or Conference presentation/attendance. To view the Book and Conference Policy, you may log in to the Ellucid website and view the Graduate Medical Education manual.
N. **Background Information** - Several conditions must be met before a House Staff Officer can begin training:

a. All credentialing requests for verification of eligibility (reference house staff credentialing policy link)

b. Toxicology screening: This is done no more than five weeks before the start date

c. Background investigation: House Staff Officers must supply their social security number, driver’s license (when applicable), and previous addresses for the past seven years.

d. New York State’s Child Abuse Registry (SCR): House Staff Officers who will have contact with the pediatric population must successfully clear this investigation. House Staff Officers in the following programs must complete the SCR during the hiring process:

   i. Child & Adolescent Psychiatry

   ii. Psychiatry

   iii. Psychiatry – Addiction

   iv. Psychiatry – Forensic

   v. Psychiatry – Forensic (non-ACGME)

   vi. Psychiatry – Geriatric Psychiatry

   vii. Psychiatry – Psychiatry/Neurology

   viii. Psychiatry – Psychosomatic Medicine

   ix. Psychiatry – Public Psychiatry

   x. Psychiatry – Reproductive Psychiatry – Women’s Mental Health

e. Fingerprinting: All House Staff Officers who rotate through the VA Hospital will be fingerprinted. House Staff Officers on the Bellevue Hospital payroll must be
fingerprinted and a second background check is conducted by the New York City Health and Hospitals Corporation. The associated fee (currently $89.75) for fingerprinting at Bellevue Hospital will be taken out of the House Staff Officer’s first paycheck.

O. **Residency Closure/Reduction.** The Director will inform the House Staff Officer of any adverse accreditation actions taken by the ACGME, AOA, or CPME, CODA against the House Staff Officer’s training program or of any decisions by NYU to reduce the size of or to close the training program within a reasonable period after such action is taken. In the event of a training program reduction or closure, NYU either will allow the House Staff Officer to complete his/her training at NYU or will assist the House Staff Officer in enrolling in an ACGME, AOA, CPME, or CODA accredited program that will allow the House Staff Officer to continue his/her training.
Transitions of Care

NEUROSURGERY PROGRAM TRANSITIONS OF CARE POLICY

In accordance with institutional policy that all programs must design clinical assignments to minimize the number of transitions in patient care the department of Neurosurgery has adopted the follow policy for transitions of care. We acknowledge that the sponsoring institution and program must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.

1. Our program will ensure that residents are competent in communicating with team members in the hand-over process.
2. The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and residents currently responsible for each patient’s care.
3. Competence or adherence to this policy is monitored during every sign out to attending or chief resident supervising. Considerations are delineated and taken into consideration during formal evaluation periods or on a quarterly basis. The Clinical Competency Committee also reserves the right to review any concerns in adherence to transition of care.

All patient orders, results, medications, progress and consult notes are located in our EMR systems at the various sites and all patients must have a medication reconciliation when they are transferred between care settings or services at all of our institutions. This helps to alleviate opportunities for loss of information and continuity during transitions of care. Ultimately as is designated in our supervision policy the attending physician is responsible for the care of any individual patient. We do however recognize that transitions of care occur between house staff as the come on and off shifts in order to minimize the these effects our program encourages the following steps to minimize transitions, errors during transitions, and to maximize patient care:

Designate a quiet space where transitions of care occur.
This room should:
- Include computers so residents can access medical information using the hospital EMR
- Allow for private uninterrupted discussions about each individual patient
  - At Langone Medical Center/Tisch Hospital transition of care discussions should take place in the Chiefs office or in the 12-floor conference room.
  - At Bellevue Hospital transition of care discussions should take place in the
resident office in suite 7S.
  o At the **VA Medical Center** transition of care discussions should take place in the resident office.

Reduce interruptions during transition of care.
  o The chief or senior resident on the service resident leads the transition of care process
  o Residents to avoid distractions caused by pagers, phone calls, and other tasks
  o If an interruption occurs, residents should begin the discussion of the patient over again.

Use computerized templates (route sheets/lists) for all transitions of care.
  o These Electronic templates that are generated from the hospital EMR system and have pre-populate patient information, such as:
    a. Patient name
    b. Medical record number
    c. Date of birth
    d. Room number
    e. Date of admission
    f. Primary diagnosis
    g. Attending physician of record
    h. Residents should review every patient during the transition of care.
  o Verbally identify each patient
  o List the major medical issues and the to-do list the covering practitioner needs to complete.
  o Avoid nonstandard abbreviations.
  o State all of the anticipated problems that may arise.
  o The receiver should be an active listener, take notes, and should verify all of the items on the to-do list to ensure that they understood everything
  o Verify that they know the contact information of the attending physician of record

Identify sick patients upfront.
  o If the patient is sick or the team is particularly concerned, the giver should say that at the beginning of the patient's transition of care
  o This helps to ensure that the physician receiving the information understands the seriousness of the situation and asks the appropriate questions.
  o If appropriate the team should see these patients together at the conclusion of the sign out discussions.

Explain the rationale. Expectations:
  o Residents handing off patients to another physician should explain their rationale for each management plan.
  o Use if-then scenarios during transitions of care.
  o Focus the discussion on contingencies (e.g., if patient reacts this way, do X; if patient reacts that way, do Y)
  o Give the receiving physicians a clear understanding of what they should consider doing during their shift.
  o Empower givers and receivers.
Both parties should feel comfortable enough to ask the other practitioner to slow down or elaborate.

All House Staff Officers will be educated on how to perform appropriate and safe transitions of care.

- As a PGY1 – included in part of professionalism curriculum as a first year in the program, Residents will be educated on proper TOC procedures by senior residents and supervising attending’s at each site.
- They will be educated on the appropriate times of day that all handoff’s should be completed by and provided. List of patients on service should be run in the am and pm or at beginning or end of a shift.
- Service chiefs on at each site will communicate any changes to this schedule.
- Lists will evaluated based inclusion of above criteria in EMR templates. They will also evaluated based on timeliness and accuracy of information.
- It is an expectation that by competition of PGY 1 year, all trainees have learned procedures as stipulated by this policy. This is part of a trainee’s professionalism score.

The required level of supervision for transitions of care for different levels of trainees and/or patient care.

- All PGY 1 and junior residents will have direct supervision from service chiefs.
- Service Chiefs will report any and all issues that arise from TOC to supervising attending on service.
- The site directors, service chiefs, and program director will periodically monitor, observe and evaluate these transitions to ensure compliance with the above.
- Evaluation will also take place as part of their quarterly evaluations and as needed on the fly evaluations for a service.

Course of Action in the event that a House Staff Officer violates this policy

- In the event that a resident or fellow violates this policy, a written and or verbal warning will be issued by the program director to resident.
- Failure to provide the expected transition of care will be documented in resident file and discussed as part of semi-annual and milestone review.
- Where a consistent problem exists, the resident or fellow will held to the Corrective and Disciplinary Action Policy included in this manual.
I. Summary of Policy

The ACGME Common Program Requirements state:

- Programs must design clinical assignments to minimize the number of transitions of patient care.
- Sponsoring Institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.
- Programs must ensure that residents are competently in communicating with team members in the hand-over process.
- The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and residents currently responsible for each patient’s care.

II. Policy Purpose

The purpose of this policy is to ensure that all House Staff Officers and Program Directors are aware of the importance of safe and effective transitions of care. This policy aims to meet the requirements of the ACGME Institutional and Common Program Requirements with respect to transitions of care.

III. Applicability of the Policy

This policy applies to all House Staff Officers in ACGME accredited training programs at NYULMC.

IV. Policy

Transitions of Care/Handoff Standards – The policies that are developed by each individual program must be sure that transitions of care occur in a standardized fashion,
and include, at minimum, the following information/components:

- **a. Patient identifiers:** Name, medical record number, date of birth
- **b. Admission information:** Admitting physician, date and time of admission
- **c. Patient Summary:** Exam findings, lab results, any clinical changes since admission, including changes in level of patient care and severity of issue(s)
- **d. Active issues:** Current diagnosis, status, condition of patient, recent events.
- **e. Contingency plans ("If.../...then")
- **f. Family contacts
- **g. Discharge plans/instructions:** Any discharge information given to patient, anticipated discharge information. This should include discharge instructions to other facilities or levels or care.
- **h. Anticipated action/changes:** Expected tests or procedures.
- **i. Any changes in responsible attending physician and/or nurse
- **j. "Check for Understanding":** All transitions of care must be fortified with a “check-back” to ensure that the receiver of information correctly understands all information that has been provided.

### B. Office of GME Responsibilities

- **a. The Sponsoring Institution must monitor programs to ensure that each program has a handoff/transition of care policy that applies specifically to their specialty. These policies must be submitted to the Office of GME at least annually and whenever requested.

- **b. The Sponsoring Institution must have the appropriate mechanisms in place to allow all appropriate parties access to the schedule of physicians and House Staff Officers to allow for safe and effective transitions of care. In addition, these schedules should clearly delineate the responsible physician and/or House Staff Officer for a given patient at any time, to ensure that proper care and oversight is provided for each patient.

- **c. The Office of GME will monitor the entry of schedules into New Innovations to ensure that House Staff Officer and faculty schedules are entered.

- **d. The Office of GME will grant view-only access of these schedules to necessary parties, such as nurses who are working alongside House Staff
Officers in caring for a patient.

C. Training Program Responsibilities

a. Each program just have its own policy for transitions of care/handoff. These policies must address any specialty-specific tasks necessary for a safe and effective transition of care. These policies should address, but are not limited to:
   i. The accepted standard for transitions of care within the department or program
   ii. Expectations for following the Transition of Care Policy
   iii. Course of Action in the event that a House Staff Officer violates this policy
   iv. Instructions on how the program intends to educate all House Staff Officers on how to perform appropriate and safe transitions of care.
   v. The required level of supervision for transitions of care for different levels of trainees and/or patient care.

b. All schedules and call-schedules must be made available to nurses, attendings, and other House Staff Officers through New Innovations or other appropriate methods.

c. The Training program must ensure that the schedules of House Staff Officers minimizes the number of transitions of patients to maintain patient safety and continuity of care, and also allow House Staff Officers to comply with ACGME and New York State Duty Hour regulations.

V. Related Policies (if applicable)
A. Duty Hour Policy for House Staff Officers
B. Alertness Management/Fatigue Mitigation
I. Policy Purpose

The Book and Conference Stipends were instituted to help offset expenses incurred during the trainees Academic Year (July 1st thru June 30th) by House Staff in relation to purchase of medical equipment or Conference presentation/attendance.

II. Applicability of the Policy

House Staff Officers who are assigned to NYU Hospitals Center pay line are eligible for one or both of these stipends. House Staff Officers assigned to a Bellevue pay line are eligible for one or both of these stipends thru CIR. House Staff Officers assigned to a NYU Lutheran pay line are eligible for NYU Lutheran stipends only.

Effective July 1, 2008 House Staff Officers assigned to a State pay line will be eligible for Book Stipend reimbursement. House Staff Officers on the State line must be PGY 2 or below to be eligible for the $600.00 reimbursement.

Eligibility begins with the date training begins and the stipend amounts are non-accruable. Stipend requests for each academic year must be submitted for approval by June 30. House Staff Officers in non-ACGME, non-AOA, or non-CPME programs not funded by a Hospital pay line or whose salary is 100% funded by a grant, are not eligible for these stipends.

III. Definitions

A. ACGME – Accreditation Council for Graduate Medical Education

B. AOA- American Osteopathic Association

C. CPME- Council on Podiatric Medical Education
D. **GME** – Office of Graduate Medical Education

E. **CIR** – Committee of Interns and Residents

F. **PEP** – CIR Professional Education Plan

G. **HHC** – Health and Hospitals Corporation

H. **Sponsoring Institutions** – NYU School of Medicine and NYU Hospitals Center

**IV. Policy**

**NYU LANGONE MEDICAL CENTER STIPEND:**

A. **Book Stipend** – NYU Book Stipend follows CIR established guidelines set for the PEP for eligible reimbursable expenses.

1. **Eligibility** – All House Staff Officers assigned to NYU Hospitals Center pay line. House Staff assigned to a State line that are PGY 2 or below.

2. **Reimbursement** – Up to $600.00 per academic year for qualified academic expenses:
   a. Medical Books/electronic medical books
   b. Medical Audio or Video Tapes
   c. Medical Compact Discs
   d. Work-Related Medical Equipment
      i. Personal digital assistants (PDAs or "Palm Pilots") are work-related medical equipment and reimbursable.
      ii. Items that can be used only for work/medical purposes, such as the Pocket PDR®, are reimbursable.
      iii. Smartphone, BlackBerry, Treo's and i-Phone that have available medical software are reimbursable.
      iv. Items, other than PDAs, that can be used generally, that is either for work/medical purposes, or personal/non-work purposes, such as computers, laptops, cameras, or most software, are **not** reimbursable.
   e. Dues for Medical Specialty Societies
   f. Subscriptions for Medical Specialty Journals
   g. Medical License Application Fees
   h. Medical License Examination Fees
   i. Specialty Board Examination Fees
B. **Conference Stipend** – NYU Conference Fund follows CIR established guidelines for HHC Conference Fund for eligible reimbursable expenses.

1. **Eligibility**
   a. All residents to be used anytime during their basic residency program.
   b. Extra Year Chief Residents who have finished their basic residency.
   c. Fellows in subspecialty training programs.

2. **Reimbursement**
   a. $1,500.00 maximum benefit during basic residency
   b. $1,500.00 maximum each year for Fellows or Extra Year Chiefs.

**NYU LUTHERAN MEDICAL CENTER STIPEND:**

A. **Educational Stipend** – NYU Lutheran Educational Stipend follows established guidelines set for the NYU Lutheran House Staff for eligible reimbursable expenses.

1. **Eligibility** – All House Staff Officers assigned to NYU Lutheran Medical Center pay line.

2. **Educational Stipend Reimbursement** – Up to $250.00 per academic year for qualified academic expenses:
   a. Medical Books
   b. Medical Audio or Video Tapes
   c. Medical Compact Discs
   d. Work-Related Medical Equipment
      i. Personal digital assistants (PDAs or "Palm Pilots") are work-related medical equipment and reimbursable.
      ii. Items that can be used only for work/medical purposes, such as the Pocket PDR®, are reimbursable.
      iii. Smartphone, BlackBerry, Treo's and i-Phone that have available medical software are reimbursable.
      iv. Items, other than PDAs, that can be used generally, that is either for work/medical purposes, or personal/non-work purposes, such as computers, laptops, cameras, or most software, are not reimbursable.

3. **Reimbursement for final year of residency (for residency programs of two or more years)** – Up to $1,000 for final year in lieu of the $250 described above for a board review course approved by their Director. Other expenses such as travel, meals, or lodging are not to be included in the $1,000.

B. **Conference Stipend** – NYU Lutheran Conference stipend allows for up to $1,000 per trainee for eligible reimbursable expenses (available once during training period) towards attendance at a regional or national conference for advanced training or presentation of research projects.

1. **Eligibility**
a. All ACGME, AOA, and CPME residents to be used anytime during their basic residency program.
b. Fellows in accredited subspecialty training programs.

2. Reimbursement
   a. $1,000.00 maximum benefit during basic residency only if presenting.

**BELLEVUE HOSPITAL CENTER STIPEND**

House Staff on Bellevue Hospital are part of the HHC and are eligible for the Book and Conference Fund through their membership with CIR.

V. Procedure

**NYU LANGONE MEDICAL CENTER REIMBURSEMENT PROCESS:**

A. **NYU Hospitals Center and State Hospital**
   1. To apply for reimbursement, House Staff Officers should complete the NYU Hospitals Center Book & Conference Reimbursement Form. This form is to be submitted to the Program’s Residency Coordinator with the corresponding original receipts. (House Staff Officer, be sure to provide your mailing address on the form.)
   2. As requests are reviewed by the department, the Coordinator then enters/updates the data on the Book Stipend Tracking spreadsheet and the Book Stipend Submission template. The completed template should then be submitted via email to the applicable GME Training Program Specialist for review. Once it is approved, the GME Training Program Specialist will submit it to NYU Payroll Services for processing.
   3. Conference Reimbursement requests are reviewed by the department and the Coordinator enters the data on the NYU Medical Center - Hospital for Joint Diseases Conference Fee Travel Expense Reimbursement Form to be submitted to Accounts Payable for payment.
   4. **Program Coordinators may not add individuals to the Book or Conference reimbursement roster.** Please contact the Office of GME if an individual is missing from the reimbursement roster or to check eligibility status.
   5. House Staff Officers should contact the Program Coordinator with any questions.
   6. **NYU Finance process for reimbursement must be followed:**

http://finance.webdev.nyumc.org/policies-and-procedures
NYU LUTHERAN MEDICAL CENTER REIMBURSEMENT PROCESS:

A. NYU Lutheran
   1. To apply for reimbursement, House Staff Officers should complete the NYU Lutheran Educational Stipend Reimbursement Form (available on New Innovations). This form must be submitted to the Program’s Residency Coordinator with the corresponding original receipts.
   2. The Coordinator obtains approval from the Program Director (if applicable) then enters/updates the data on the Book Stipend Tracking spreadsheet and the Book Stipend Submission template. A Check request to submit reimbursement to the house staff officer is submitted to the GME Office for signatory. Once it is approved, the Coordinator will submit the Check request to the Finance, Accounts Payable for processing.
   3. Requests for Conference Reimbursement must have prior approval before the house staff officer attends a conference. The Educational Stipend Form (available on New Innovations) must be completed and signed by the Program Director prior to attendance. All requests are reviewed by the GME Office before Reimbursement is submitted to Finance, Accounts Payable for payment.
   4. House Staff Officers should contact the Program Coordinator with any questions.

BELLEVUE HOSPITAL CENTER STIPEND PROCESS

Professional Educational Plan (PEP)
The PEP reimburses costs associated with books, board exams, medical licensure fees, dues subscription journals, and mobile electronic medical devices. Effective July 1, 2011, the maximum benefit payable is $650 per plan year. Any unused funds can be rolled over to the next plan year, provided you remain on Bellevue payroll.

The CIR/SEIU Professional Education Plan (PEP) Reimbursement Claim Form can be found at: http://www.cirseiu.org/pep/

Continuing Learning Program (CLP)
The CLP (formerly known as Conference Reimbursement), reimburses Residents and Fellows a maximum of $1,500.00 every three years based solely on their PGY level. The CIR/SEIU Continuing Learning Program (CLP) Reimbursement Claim Form can be found at: http://www.cirseiu.org/hsclaims/.
NOTE: Effective July 1, 2014, the Conference reimbursement amount, for fellows on Bellevue payroll, is $1,500.00 maximum for the entire length of the fellowship. This differs from the reimbursement for fellows on NYUMC payroll.
Patient Safety/Quality Improvement Resources, Expectations & Curriculum

I. Program Evaluation Committee meetings – a portion of each meeting will be designated to discuss ongoing issues with patient safety. At these meetings we will identify issues with reporting systems as well as disseminate new information regarding patient communication, safety and new modules available in the tool-box. In addition to going over milestone evaluations, we use these meetings as opportunities to discuss issues with supervision, Scope of practice, TOC and professionalism. In particular, we have highlighted potential areas where professionalism is in questions and developed methods to educate our residents on these issues. We are also assessing our residents on these key areas at these meetings.

II. All residents, in collaboration with one of our faculty members will continually develop a quality improvement instrument in the form of a database that will monitor and track patient mortality and morbidity. The aim is to produce data that can be used to aide surgical decision-making and improve patient care outcomes. Residents are encouraged to participate in advanced data analysis to develop clinical research projects and publications on findings. It is our programs goal to not only improve the overall quality of our systems of care but in doing so also encourage our residents to participate in research and data gathering that will contribute to the promotion of effective and evidenced based care. In regards to reducing health care disparities, analysis of case numbers and areas of deficiency will assist in identifying areas for improvement. For example, we have recently begun an analysis of surgical morbidity in the elderly.

III. Transition of care process - is continuously being reviewed. Chair also meets with the residents during chair rounds, to discuss ongoing issues on the floors.

IV. QA committee - was established by our chair. Dr. Donato Pacione will be spearheading. They will occur on quarterly basis. GME and hospital wide initiatives will be discussed. Representation from the Program Director, Program Manager and going forward a PGY4 will be provided. The QPS goals were discussed and methods to disseminate to our residents developed. Minutes are available upon request.

V. 360 evaluations - are being utilized as methods for continuous development. Each resident will complete these on a quarterly basis for not each other but themselves. Information from 360 is being incorporated into the milestone meetings and Program Manager responsible for highlighting areas of deficiency.
VI. Portfolios will be rolled out to all residents in AY 2015. In addition to reporting scholarly activity, the program will be collecting the data from projects for its own database of ongoing projects related to quality and safety.
Education and Scholarly Activities for Trainees

I. All residents will demonstrate at least 2 publications. This can be in the form of Peer-reviewed publications, Abstracts/Presentations/Posters, or Book Chapters. Progress on this policy will be reviewed at semi-annual assessments. The CCC (Clinical Competency Committee) will also be reviewing all resident scholarly activity.

II. As part of Scholarly Activity Expectation, all residents and faculty must provide an updated CV with all scholarly activity and appropriate sections. The NIH format or NYU format are highly encouraged. Program manager will request CV on a semi-annual basis for compliance and reporting purposes.

III. Grand Round Presentations – Presenting at Grand Rounds is part of professional development. As such, as PGY 6’s and 7’s must present at least one topic of interest each year. Scheduling of this presentation must be coordinated with Program Manager. All faculty are also highly encouraged to participate in presenting at Grand Rounds on a yearly basis.

IV. Journal Club – all residents are expected to participate regularly in Journal Club. Abstracts and publications are distributed a week prior to Journal Club for review by residents. It is their responsibility to review and be prepared for discussion and Q and A. Faculty are strongly encouraged to attend all Journal Club Meetings.

V. CME offerings by Department – all residents and faculty are guaranteed registration, free of charge, to any and all CME offerings coordinated by the Department of Neurosurgery. This includes the annual Neurosurgery Symposium in December and Gamma Knife courses. Program Manager will distribute emails and schedules on a regular basis.

VI. Reporting of Scholarly Activity
Once a year, ACGME will distribute faculty and resident scholarly activity templates. Program manager will inform faculty and residents of need to provide information for template. Faculty and residents should completed template in a timely manner or at minimum provide updated CV. PMIDs for all publications should also be included. For any questions, please contact program administration.

We have added a research program manager and research coordinator to the Neurosurgery Department to assist the residents.


**Education and Scholarly Activities for Faculty**

I. Program Evaluation Committee meetings – a portion of each meeting will be designated to discuss ongoing issues with patient safety. At these meetings we will identify issues with reporting systems as well as disseminate new information regarding patient communication, safety and new modules available in the tool-box. In addition to going over milestone evaluations, we use these meetings as opportunities to discuss issues with supervision, Scope of practice, TOC and professionalism. In particular, we have highlighted potential areas where professionalism is in questions and developed methods to educate our residents on these issues. We are also assessing our residents on these key areas at these meetings.

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VI. Portfolios will be rolled out to all residents in AY 2015. In addition to reporting scholarly activity, the program will be collecting the data from projects for its own database of ongoing projects related to quality and safety.
Clinical Competency Committee Description (CCC)

Department of Neurosurgery
Clinical Competency Committee/Program Evaluation Committee

The Clinical Competency Committee serves at the invitation of the Program Director and forms the highest departmental authority in the evaluation of each resident in terms of attainment of milestones for reporting to the ACGME, and makes recommendations to the Program Director for advancement or remediation or dismissal.

The Clinical Competency Committee consists of faculty members across training sites. Members are appointed by the Program Director based on program requirement V.A.1.

Faculty Members: Drs. Golfinos, Riina, Frempong, Wisoff, Kondziolka, Sen, Mogilner, Harter, Huang, Pacione and Dr. Stone

Non-Physician Members: NP/PA, Program Manager

The CCC is charged with the following responsibilities:

1) Review all resident evaluations semi-annually (faculty and peer evaluations, self-assessment score reports, scholarly activities and consultations with teaching faculty, case logs, pre- and post-rotation examination scores).

2) Milestones evaluations of each resident
   a. Review all resident evaluation data completed by faculty
   b. Prepare and ensure the reporting of Milestones evaluations semi-annually June/Dec
   c. Make recommendations to PD for resident progress, including promotion, remediation and dismissal.

3) Advise the program director regarding resident progress, including promotion, remediation, and dismissal. The program director will make the final decision of each resident.
Program Evaluation Committee Description (PEC)

The role of the PEC members is to plan, develop, implement and evaluate the program’s educational activities. The PEC members’ responsibility is to review and to make recommendations for revision of the curriculum, including the goals and objectives of the program. The PEC uses ACGME and internal, faculty and resident feedback to review the residency program annually, and address areas of non-compliance to ACGME standards. The PEC is also responsible of rendering a formal, written Annual Program Evaluation (APE) and preparing a written plan of action. The PEC will meet, in person or virtually semi-annually.

The Program Evaluation Committee consists of faculty members across training sites, and includes the following members:

Faculty Members: Drs. Golfinos, Riina, Frempong, Wisoff, Kondziolka, Sen, Mogilner, Harter, Huang, Pacione and Dr. Stone

Rotating Members: PGY7 Chiefs, PGY 6s and PGY 4s – designated each year and Program Manager

The PEC will monitor and track, at minimum, each of the following, and anything else that may be specific to your program that is germane to program quality and /or outcomes:

- Resident performance
- Faculty development
- Graduate performance, including certification examination scores (ABNS certification)
- Program quality – as judged from trainee and faculty evaluations of the program.
- Progress on last year’s action plan (program improvement plan or PIP)
- Review all RRC Program Requirements/ Expectations
- Discuss all Program related issues including but not limited to: Evaluations and Process, curriculum, rotations, changes to program, interview process, ACGME accreditation issues/topics, and internal GME and hospital requirements for all trainees.
Evaluation of the resident/fellow by the faculty (by each learning experience)

Milestone-based evaluations are distributed during Residency Orientation and available on the New Innovations system. Note that evaluations of residents are based on the ACGME milestones and customized according to rotation.

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<tr>
<th>INTERPERSONAL AND COMMUNICATION SKILLS</th>
<th>Evaluate</th>
<th>Remarks</th>
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<tr>
<td>Informed consent</td>
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<td>Requires development</td>
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<td>Obtains with barriers</td>
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<td>Quantifies complex risk/benefit</td>
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<td>Did not observe</td>
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<td>Breaking bad news</td>
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<td>Requires development</td>
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<td>Effectively communicates/Manages unexpected outcome</td>
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<td>Did not observe</td>
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<td>Procedural pause</td>
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<td>Identifies elements</td>
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<td>Participates</td>
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<td>Advance directive</td>
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<td>Requires development</td>
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<td>Identifies elements</td>
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<td>Did not observe</td>
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<td>Hand offs</td>
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<td>Requires development</td>
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<td>Identifies elements</td>
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<td>Uses protocols &amp; checklists</td>
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<td>Supervises</td>
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<td>Did not observe</td>
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<td>Critical event management</td>
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<td>Requires development</td>
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<td>Prioritizes &amp; conveys simultaneous events</td>
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<td>Manages simultaneous events</td>
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<td>Leads response to critical event</td>
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<td>Did not observe</td>
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<tr>
<td>Interpersonal communications – patients and families</td>
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<tr>
<td>Requires development</td>
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<tr>
<td>Satisfactory</td>
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<tr>
<td>Did not observe</td>
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<tr>
<td>Interpersonal communications – physicians &amp; health care workers</td>
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<tr>
<td>Requires development</td>
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<td>Communicates effectively</td>
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<td>Acts as team leader</td>
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<td>Consulted to resolve conflict</td>
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<tr>
<td>Did not observe</td>
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<tr>
<td>Interpersonal communications – consultative role</td>
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<td>Requires development</td>
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<td>Satisfactory</td>
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<td>Did not observe</td>
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<tr>
<td>Technology</td>
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<td>Requires development</td>
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<tr>
<td>Satisfactory</td>
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<tr>
<td>Did not observe</td>
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<table>
<thead>
<tr>
<th>Uses EMR &amp; PACS for timely clinical reporting</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creates accurate, safe EMR orders</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Completes accurate, timely operative notes</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Respects HIPAA protections for PHI</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
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</tbody>
</table>

Narrative comments

Remaining Characters: 5,000

**PROFESSIONALISM**

**Compassion**

Demonstrates caring patient interactions

Respects cultural and socioeconomic differences

Acts as a mentor, role model and safe/effective supervisor

**Clinical ethics**

Requires development | Describes principles | Identifies and manages challenges | Manages complex challenges | Did not observe |

Puts patients' needs above self-interest

**Accountability**

Punctual for rounds and patient care duties

Manages fatigue

Appropriate attire & demeanor

Reliable and industrious

Prioritization

Requires development | Prioritizes daily activities | Prioritizes unanticipated events | Did not observe |

https://www.new-inniv.com/EvaluationForms/EvaluationFormsHost.asp...dPSLAI/UC99a03ZXKX%ZinvOmsPSreplacedSYKEMvQwDXY/GZjyn/HroQIlwz Page 2 of 4
Subcompetency questions are generated based on the resident's rotation.

Choose a rotation

Return to Questionnaire List
# Resident Patient Care Evaluation by Faculty - Pediatric

## Evaluation and Work-Up

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Requires Development</th>
<th>Satisfactory</th>
<th>Did Not Observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs comprehensive and age-appropriate history in a pediatric neurosurgical patient</td>
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<tr>
<td>Performs an appropriately comprehensive and age-appropriate medical examination in a pediatric neurosurgical patient</td>
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<tr>
<td>Performs an appropriately comprehensive, age-appropriate and targeted neurological examination in a pediatric neurosurgical patient</td>
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<tr>
<td>Work-up of a pediatric patient with a neurosurgical disorder</td>
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<tr>
<td>Adapts standard treatment plans to special circumstances (e.g., previous surgery, developmental delay, coagulopathy)</td>
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<tr>
<td>Interprets diagnostic imaging for pediatric patients including age-related variations</td>
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<tr>
<td>Evaluates CSF shunt function</td>
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<tr>
<td>Recognizes and initiates notification and evaluation of non-accidental trauma</td>
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<tr>
<td>Diagnoses brain death accurately in infants and children</td>
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<tr>
<td><strong>PARQ</strong></td>
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<tr>
<td>Performs PARQ counseling for pediatric patients undergoing neurosurgical procedures</td>
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<tr>
<td>Performs accurate risk analysis for complex or risky procedures</td>
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<table>
<thead>
<tr>
<th><strong>TECHNICAL SKILLS</strong></th>
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</thead>
<tbody>
<tr>
<td>Can perform components of <strong>routine</strong> procedures (e.g. CSF shunt, baclofen pump, Chiari decompression) competently</td>
</tr>
<tr>
<td><strong>Positioning, set-up, preparation and draping</strong></td>
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<tr>
<td>Observer</td>
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<td></td>
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<tr>
<td><strong>Approach</strong></td>
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<tr>
<td>Observer</td>
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<td><strong>Key portion</strong></td>
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<td>Observer</td>
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<tr>
<td><strong>Closure and transfer to recovery or critical care</strong></td>
</tr>
<tr>
<td>Observer</td>
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</tbody>
</table>

| Programs shunt valves and taps shunts |
| Requires development | Satisfactory | Did not observe |
| | | | |

Narrative comments
## PERI-OPERATIVE CARE

### Post-operative management plan

<table>
<thead>
<tr>
<th>Task</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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</thead>
<tbody>
<tr>
<td>Implements appropriate, safe, age and disease specific EMR orders</td>
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<tr>
<td>Communicates care plan appropriately</td>
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</table>

### Complications

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<thead>
<tr>
<th>Task</th>
<th>Requires development</th>
<th>Recognizes &amp; Initiates Workup</th>
<th>Manages with Assistance</th>
<th>Manages with Supervision</th>
<th>Did not observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizes and manages complications in pre-verbal and older children (e.g. hematoma, infection, device malfunction, acute mental status decline)</td>
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### Narrative comments

Remaining Characters: 5,000
<table>
<thead>
<tr>
<th>Evaluation and Work-Up</th>
<th>Requires Development</th>
<th>Satisfactory</th>
<th>Did Not Observe</th>
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</thead>
<tbody>
<tr>
<td>Performs comprehensive</td>
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<tr>
<td>history in a patient</td>
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<tr>
<td>with a spinal disorder</td>
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<tr>
<td>Performs an appropriately comprehensive medical examination in a patient with a spinal disorder</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Performs an appropriately comprehensive and targeted neurological examination in a patient with a spinal disorder</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Work-up of medical comorbidities in pre-operative spinal surgery patients</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Work-up of a patient with a degenerative spinal disorder (e.g., myeloradiculopathy, cervical and lumbar degenerative disease)</td>
<td>Requires development</td>
<td>Initiates Work-up</td>
<td>Formulates Treatment Plan</td>
</tr>
<tr>
<td>Work-up of a patient with a traumatic spinal disorder (e.g., spinal column fracture, spinal cord injury)</td>
<td>Requires development</td>
<td>Initiates Work-up</td>
<td>Formulates Treatment Plan</td>
</tr>
<tr>
<td>Work-up of a patient with a neoplastic spinal disorder (e.g., spinal column tumor)</td>
<td>Requires development</td>
<td>Initiates Work-up</td>
<td>Formulates Treatment Plan</td>
</tr>
<tr>
<td>Interprets diagnostic studies (e.g., imaging, EMG) for patients with a spinal disorder</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Initiates management of a patient with an acute spinal cord injury</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
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### Narrative comments

**Remaining Characters:** 5,000

<table>
<thead>
<tr>
<th>PARQ</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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<tbody>
<tr>
<td>Performs PARQ counseling for patients with a spinal disorder</td>
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| Performs accurate risk analysis for complex or risky procedures     | ☐                    | ☐            | ☐               |

**Narrative comments**

**Remaining Characters:** 5,000

### TECHNICAL SKILLS

**Can perform components of routine procedures (e.g. lumbar or cervical laminectomy, lumbar discectomy) competently**

<table>
<thead>
<tr>
<th>Positioning, set-up, preparation and draping</th>
<th>Observer</th>
<th>Assistant Surgeon</th>
<th>with staff</th>
<th>assist Surgeon</th>
<th>with staff</th>
<th>observer</th>
<th>Did not observe</th>
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<tr>
<th>Approach</th>
<th>Observer</th>
<th>Assistant Surgeon</th>
<th>with staff</th>
<th>assist Surgeon</th>
<th>with staff</th>
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<th>Did not observe</th>
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**Can perform components of complex procedures (e.g. ACFD, posterior lumbar fusion, spinal cord tumor resection, fracture stabilization) competently**

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**Can perform components of advanced procedures (e.g. thoracolumbar or craniocervical reconstruction, reconstruction after infection, vertebral tumor resection) competently**

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### Tumor

199
# Resident Patient Care Evaluation by Faculty - Tumor

## Evaluation and Work-Up

<table>
<thead>
<tr>
<th>Task</th>
<th>Requires Development</th>
<th>Satisfactory</th>
<th>Did Not Observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs comprehensive history in a patient with a brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Performs an appropriately comprehensive medical examination in a patient with a brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Performs an appropriately comprehensive and targeted neurological examination in a patient with brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Work-up of a patient with a brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Adapts standard treatment plans to special circumstances (e.g., previous surgery, anticipated neurological morbidity)</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Interprets diagnostic imaging for patients with a brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Work-up for neurological deterioration</td>
<td>☐ ☐ ☐</td>
<td>☐ ☐</td>
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Narrative comments:

Remaining Characters: 5,000

## PARQ

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<th>Task</th>
<th>Requires Development</th>
<th>Satisfactory</th>
<th>Did Not Observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs PARQ counseling for patients with a brain or spinal cord tumor</td>
<td>☐ ☐ ☐</td>
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</table>
Performs accurate risk analysis for complex or risky procedures

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Narrative comments

Remaining Characters: 5,000

**TECHNICAL SKILLS**

*Can perform components of routine procedures (e.g. resection of non-eloquent glioma or metastasis, stereotactic biopsy) competently*

<table>
<thead>
<tr>
<th>Positioning, set-up, preparation and draping</th>
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<tbody>
<tr>
<td>Observer Assistant Surgeon with staff assist Surgeon with staff observer Did not observe</td>
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</table>

*Can perform components of complex procedures (e.g. resection of eloquent glioma, ventricular or posterior fossa tumor) competently*

<table>
<thead>
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<th>Positioning, set-up, preparation and draping</th>
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<td>Observer Assistant Surgeon with staff assist Surgeon with staff observer Did not observe</td>
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</tbody>
</table>

Manages unexpected intra-operative events (sinus bleeding, cerebral edema)

<table>
<thead>
<tr>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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</table>

Narrative comments

Remaining Characters: 5,000

**PERI-OPERATIVE CARE**

*Post-operative management plan*

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<tr>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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Implements appropriate, safe, disease specific EMR orders
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<tr>
<th></th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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</thead>
<tbody>
<tr>
<td>Communicates care plan</td>
<td></td>
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<tr>
<td>appropriately</td>
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**Complications**

<table>
<thead>
<tr>
<th></th>
<th>Requires development</th>
<th>Recognizes &amp; Initiates</th>
<th>Manages with Assistance</th>
<th>Manages with Supervision</th>
<th>Did not observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizes and manages</td>
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<tr>
<td>complications (e.g.</td>
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<tr>
<td>hematoma, infection,</td>
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<td></td>
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<tr>
<td>seizure, hydrocephalus)</td>
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Narrative comments

Remaining Characters: 5,000

Close Window
<table>
<thead>
<tr>
<th>EVALUATION AND WORK-UP</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs comprehensive history in a trauma patient (e.g. coma, polytrauma)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Performs an appropriately comprehensive medical examination in a trauma patient (e.g. coma, polytrauma)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Performs an appropriately comprehensive and targeted neurological examination in a trauma patient (e.g. coma, polytrauma)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Work-up of a trauma patient (e.g. coma, severe TBI)</td>
<td>Requires development</td>
<td>Initiates Work-up</td>
<td>Formulates Treatment Plan</td>
</tr>
<tr>
<td>Manages polytrauma</td>
<td>Requires development</td>
<td>Initial Management</td>
<td>Prioritize Management of Injuries</td>
</tr>
<tr>
<td>Adapts standard treatment plans to special circumstances (e.g. medical comorbidity, coagulopathy)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Interprets diagnostic imaging in trauma patients (e.g. coma, polytrauma)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
<tr>
<td>Work-up for altered neurological examination</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
</tr>
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Narrative comments

Remaining Characters: 5,000
### PARQ

<table>
<thead>
<tr>
<th>Performs PARQ counseling for trauma patients undergoing neurosurgical intervention</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Performs accurate risk analysis for complex or risky procedures</th>
<th>Requires development</th>
<th>Satisfactory</th>
<th>Did not observe</th>
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**Narrative comments**

Remaining Characters: 5,000

### TECHNICAL SKILLS

**Can perform components of routine procedures (e.g. burr hole, craniotomy for hematoma or penetrating injury) competently**

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**Can perform components of complex procedures (e.g. repair of vascular injury or CSF fistual, posterior fossa hematoma) competently**

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**Selects cranial trauma patients appropriate for operative intervention**

**Requires development**

**Organizes emergency surgical team, prepares for emergency cranial surgery with cervical precautions**

**Requires development**

<p>| Implements intra-cranial pressure monitoring | Requires development | Places ICP Monitor | Places EVD | Manages Ventricular Drainage | Did not observe |
|---|---|---|---|---|---|---|</p>
<table>
<thead>
<tr>
<th>Implements intra-cranial pressure monitoring</th>
<th>Requires development</th>
<th>Places ICP Monitor</th>
<th>Places EVD</th>
<th>Manages Ventricular Drainage</th>
<th>Did not observe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manages unexpected intra-operative events (e.g., hemorrhage, air embolus)</td>
<td>Requires development</td>
<td>Satisfactory</td>
<td>Did not observe</td>
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**Narrative comments**

**Remaining Characters: 5,000**

### PERI-OPERATIVE CARE

#### Post-operative management plan

- Implements appropriate, safe, age and disease specific EMR orders

- Communicates care plan appropriately

**Complications**

- Recognizes and manages complications (e.g., hematoma, seizure, sepsis, monitor drift)

**Narrative comments**

**Remaining Characters: 5,000**
Faculty Evaluation

At least annually, the program and residents must evaluate faculty performance as it relates to the educational program. This evaluation must include at least annual written fully confidential evaluations by the residents. Evaluations are reviewed with the Faculty during the annual one to one meetings with the faculty and chair.

These evaluations:

• Clinical teaching abilities
• Commitment to the educational program
• Clinical knowledge
• Professionalism
• Scholarly activities
EVALUATION OF ATTENDING

[Subject Name]
[Subject Status]
[Evaluation Dates]
[Subject Rotation]

Evaluator
[Evaluator Name]
[Evaluator Status]

Exercise sound clinical judgment
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Clinical teaching skills
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Participation in conference
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Provides feedback to residents about their performance
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Ethical/moral conduct
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Relationship to nurses and peers
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Professionalism
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Role model
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Fund of knowledge
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A

Interest in teaching - ward
1 = Poor  2  3  4  5  6  7  8  9 = Excellent  N/A
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<tr>
<th>Attribute</th>
<th>Rating Options</th>
<th>Score Options</th>
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</thead>
<tbody>
<tr>
<td>Interest in teaching - OR</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Ability to teach</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Availability</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Interpersonal Communication</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Integrity</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
<tr>
<td>Overall Evaluation</td>
<td>1 - Poor</td>
<td>2 - 8</td>
</tr>
</tbody>
</table>

What were the strengths of this faculty member's teaching ability

Remaining Characters: 5,000

What were the weaknesses of this faculty member's teaching ability

Remaining Characters: 5,000

What suggestions would you give this faculty member to improve his/her teaching ability

Remaining Characters: 5,000

[Return to Questionnaire List](https://www.new-innov.com/EvaluationForms/EvaluationFormsHost.aspx?acedPSwgj12CL8PSreplacedPS2Z5D5w2jyKVD57AZjzesq7vPSreplacedPSk10)
Multiple Evaluators (peers, patient, self, etc)

These evaluations are completed by various individuals, other than the supervising/teaching faculty members, for a particular learning activity. Certain competencies will be addressed through multisource evaluations. For example, Interpersonal and Communication Skills (teamwork, management skill, communication) will be evaluated by nurses, technical staff, peers and patients. Typically, Medical Knowledge should not be evaluated by people who do not have the requisite expertise.

Examples of evaluators who participate in Multisource Evaluations:
- Nurses
- Allied Health Professionals
- Technical Staff
- Administrative and Clerical Staff
- Patients and Family Member
- Peers
- Other trainees and students
- Self evaluation
**INTERPERSONAL AND COMMUNICATION SKILLS**

**Relational**

- **Breaking bad news**
  - Requires development
  - Participates
  - Leads
  - Effectively communicates/Manages unexpected outcome
  - Did not observe

- **Advance directive**
  - Requires development
  - Identifies elements
  - Participates
  - Leads
  - Did not observe

- **Critical event management**
  - Requires development
  - Prioritizes & conveys simultaneous events
  - Manages simultaneous events
  - Leads response to critical event
  - Did not observe

- **Interpersonal communications – patients and families**
  - Requires development
  - Satisfactory
  - Did not observe

- **Interpersonal communications – physicians & health care workers**
  - Requires development
  - Communicates effectively
  - Acts as team leader
  - Consulted to resolve conflict
  - Did not observe

- **Interpersonal communications – consultative role**
  - Requires development
  - Satisfactory
  - Did not observe

- **Communicates effectively with patients and families from varied cultural and socioeconomic backgrounds**
  - Requires development
  - Satisfactory
  - Did not observe

**Technology**

- **Creates accurate, safe EMR orders**
  - Requires development
  - Satisfactory
  - Did not observe

- **Respects HIPAA protections for PHI**
  - Requires development
  - Satisfactory
  - Did not observe

**Narrative comments**
In summative evaluation findings and recommendations are designed to accumulate all relevant assessments for a go/no-go decision. In resident evaluation the summative evaluation is used to decide whether the resident qualifies to continue to the next training year. In program evaluation the summative evaluation is used to judge whether the program meets the accepted standards for the purpose of continuing, restructuring or discontinuing the program.
Semi Annual Eval of Resident

Collection of data, synthesis of data, clinical judgment Service
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A

Fund of fundamental surgical basic science and clinical knowledge; application of knowledge to solution of clinical problems
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A

CONFERENCE ATTENDANCE (%)
Spine Conference
Grand Rounds
Vascular Conference
Morbidity and Mortality

Remaining Characters: 5,000

Notes, summaries and operative reports are complete, concise and completed on time; Presentations at Morbidity and Mortality Conference demonstrate mechanism of complication and ways to prevent complications in the future.
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A

Establishes rapport with patients and families; Communicates effectively with nurses, colleagues, consultants and other members of care team; Oral presentations are organized and succinct; Effectively teaches students and junior residents
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A

Demonstrates initiative in caring for patients; Accepts appropriate level of responsibility; Is honest and reliable; Demonstrates empathy and compassion; Works as a member of a team; Has acceptable professional appearance
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A
Demonstrates familiarity with the medical care delivery system in which the resident practices; Appropriate and effective use of clinical pathway; Practices cost-effective care without compromising quality
1 = Poor 2 3 4 5 6 7 8 9 = Excellent N/A

Surgical Operative Log is current and accurate (insert date of last report in comments)

Yes No

Comments

Remaining Characters: 5,000

Technical skills: Manual dexterity, mastery of fundamental technical skills, conduct of operation, bedside procedures.
Strengths and Weakness (insert into comment section)
1 = Poor 2 3 4 5 6 7 8 9 = Excellent

Comments

Remaining Characters: 5,000

GLOBAL ASSESSMENT OF OVERALL COMPETENCE IN SURGERY
1 – Poor 2 3 4 5 6 7 8 9 – Excellent

This resident has successfully completed the rotations of this evaluation period

Yes No

Close Window
Summative Evaluation (by the Program Director)
In summative evaluation findings and recommendations are designed to accumulate all relevant assessments for a go/no-go decision. In resident evaluation the summative evaluation is used to decide whether the resident qualifies to continue to the next training year. In program evaluation the summative evaluation is used to judge whether the program meets the accepted standards for the purpose of continuing, restructuring or discontinued the program.

August 07, 2013
American Board of Neurological Surgery
245 Amity Road, #208
Woodbridge, CT 06525
Attention: Mary Louise Spencer
RE: [Redacted], M.D.

Dear Directors of the Board:
I am writing this letter as a narrative summary of [Redacted] M.D.'s residency in neurological surgery at the NYU Langone Medical Center/New York University School of Medicine. [Redacted] entered the neurological surgery postdoctoral training program in 2006 and began his training as an intern in the department of surgery at the New York University School of Medicine, NYU Langone Medical Center. The following year in 2007, he became a resident in the department of neurological surgery and continued until his graduation as chief resident on July 01, 2013. [Redacted] performed extremely well during his training period, receiving above average/outstanding evaluations from the faculty throughout his training. During his training, he published seven peer review papers.

Following graduation, [Redacted] has joined the faculty of the New York University School of Medicine, Department of Neurological Surgery.

I believe that [Redacted] is qualified to practice competently and independently as a neurological surgeon, and I recommend him without reservation for the ABNS oral examination and eventual ABNS certification.

If I can be of any further assistance to the board in regard to [Redacted] please do not hesitate to contact me.

Sincerely,

[Signature]

Howard A. Riina, M.D.
Professor of Neurological Surgery, Neurology and Radiology
Vice Chairman, Clinical Affairs
Director, Neurological Surgery Residency Training Program
Department of Neurological Surgery

Department of Neurosurgery
530 First Avenue, SKI Suite 6F, New York, NY 10016 • tel 212.263.5392 • fax 212.263.8664 • howard.riina@nyumc.org

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**Evaluation of the program by the resident/fellow**

### New Innovations RMS Evaluations

**1/21/15 3:27 PM**

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Quality of Outpatient Clinic Teaching – VA
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Resident Teaching Conference
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery M&M
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Cerebrovascular Conference
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Spine Conference
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neuro Tumor Board
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Tisch-Case Mix
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Tisch-Case Load
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A
Neurosurgery Rotation: Tisch – Hands-on Surgical Experience
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Tisch – Duty Hours
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Tisch – Self-study Time
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Bellevue – Case Mix
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Bellevue – Case Load
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Bellevue – Hands-on Surgical Experience
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Bellevue – Duty Hours
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A

Neurosurgery Rotation: Bellevue – Self-study Time
1 = Poor  2  3  4  5 = Average  6  7  8  9 = Outstanding  N/A
Evaluation of the program by the faculty

Program Curriculum and Improvement Evaluation
The program must document a formal evaluation of the training program. The neurosurgery faculty will be asked to evaluate the training program.
Examinations, Licensure & Certificate

Neurosurgical Residency Training

All post-graduate training described below must be acquired as a resident in a neurological surgery training program or programs accredited by the Accreditation Council for Graduate Medical Education (ACGME). It must be under the ultimate direction and control of the resident’s neurosurgery Program Director.

- **Residents Who Began Training between July 1, 2009, and June 30, 2013**
  Seventy-two months of neurosurgical residency training in ACGME accredited programs under the direction of a neurosurgical Program Director. This must consist of:
  - 42 months of core clinical neurosurgery, including 12 months as chief resident; at least 21 months must be spent in one program.
  - PGY-1 must include a minimum of 3 months of fundamental clinical skills training (critical care, trauma and other rotations as designated by the Program Director); it may include up to 6 months of neurosurgery that will count toward the 42 months required.
  - 3 months of clinical neurology taken during the first 3 years of training, preferably during the PGY-1.
  - 24 months of electives, i.e.: neuropathology, neuroradiology, research, and/or more neurosurgery, possibly in areas of special interest such as complex spine surgery, endovascular, or pediatric neurosurgery, and/or clinical and non-clinical neurosciences.

- **Residents Who Began Training after June 30, 2013**
  Eighty-four months of neurosurgical residency training in ACGME accredited programs under the direction of a neurosurgical Program Director. This must consist of:
  - 54 months of core clinical neurosurgery, including
    - 12 months as chief resident during the last two years of training (PGY-6 or 7); 21 months must be spent in one program.
    - 3 months of basic neuroscience (e.g., neurology, neuro-otology, neuroradiology, neuropathology) taken in the first 18 months of training.
    - 3 months of critical care relevant to neurosurgery patients taken in the first 18 months of residency.
    - 6 months of structured education in general patient care (e.g.: trauma, general surgery, orthopedic surgery, otolaryngology, plastic surgery, etc.).

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21 months must be spent in one program.

- 30 months of electives, i.e.: neuropathology, neuroradiology, research, and/or more neurosurgery, possibly in areas of special interest such as complex spine surgery, endovascular, or pediatric neurosurgery, and/or clinical and non-clinical neurosciences.

- Outside rotations of 6 to 12 months at an ACGME accredited program may be counted towards the core 54 months of neurosurgery training. The program director must request credit from the ABNS prior to the rotation.

- Credit towards the 30 months of elective time may be requested by a program director for prior educational experiences, such as a PhD degree in a relevant subject, clinical rotations other than fellowships obtained at non-ACGME accredited programs, and neurosurgical training completed outside of the U.S., particularly if the resident is certified in that country. Written requests submitted by the program director to the ABNS must contain a complete description of the experience and justification of the request.

- The Board will evaluate ACGME case log data as a measure of the breadth of resident experience at the completion of residency training.

Training of any type, including research, done in institutions outside of the parent program and its affiliated hospitals will not count toward meeting these requirements unless credit is requested in writing from the Board prospectively by the Program Director and approved in writing. As of July 1, 2013, rotations of 6 to 12 months in other ACGME accredited neurosurgical programs may be granted clinical neurosurgery credit that will count toward the required 54 months; otherwise credit is elective only. The ABNS may also grant elective credit for training in non-ACGME accredited U.S or foreign centers on an individual basis when undertaken with the advice and approval of the Program Director. Approval for training periods of less than three months will not ordinarily be granted since they are of questionable educational value.

Training devoted to neuroscience education, critical care, or other disciplines related to neurosurgery may also be acquired as a full time resident in ACGME accredited training programs (such as general and orthopedic surgery) that are in the same institution as the resident’s neurosurgery program. This training does not need the Board’s approval as long as it remains under the ultimate direction and control of the resident’s neurosurgery Program Director.

Upon petition from a resident’s Program Director, the Board may grant elective credit for training done before entering an accredited neurosurgery program if the resident had
substantially more than the prerequisite training in general surgery, neurology, or the basic neurological sciences at acceptable institutions. If the training resulted in a PhD in a neuroscience field, one year of elective credit will be given. Neurosurgery residency training completed abroad, particularly if it concluded with certification in that country, may also merit retroactive elective credit if the ABNS is petitioned by the Program Director. Credit is not automatic. It must be requested by the Program Director and approved in writing by the Board.

Training by preceptorship does not fulfill these requirements. Furthermore, no credit is given for training done by fellows or other individuals not enrolled as residents tracking toward certification in ACGME accredited neurosurgery programs. Resident training cannot be obtained during repeated short intervals in a number of institutions. These provisions in no way alter the basic minimum requirements.

**Leaving or Transferring from a Residency Program**  Should a resident leave a training program, the Director must send a letter to the ABNS stating the credit for training in both time and category that has been successfully completed. Should the individual enter a new neurosurgery program, the new Program Director may honor that credit depending on his or her direct appraisal of the resident’s professional and educational progress. That Program Director must then write to the Board stating how much credit will be accepted.

Information on transferring residents is handled in the same manner as above. Both the original and new Program Directors must submit training information in writing to the ABNS prospectively.

**Primary Examination/In Service Exam**  The ABNS Primary Examination is an important step in the **certification** process. It is available to all residents in ACGME accredited neurosurgery programs and is designed to evaluate candidates’ knowledge and provide direction for continued learning. The ABNS prepares the 375 question online examination with the guidance of the National Board of Medical Examiners (NBME). Most questions are multiple choice covering information on the basic sciences, critical care, fundamental clinical skills, imaging, neuroanatomy, neurobiology, neurology, neuropharmacology, neurosurgery, pathology and other disciplines deemed suitable and important. It is given each year in March at most U.S. neurosurgical residencies. The ABNS and RRC require residents to pass the Examination for credit toward certification before completing training and prior to beginning the chief resident year (PGY7).

Neurosurgeons who completed residency training in ACGME accredited programs may take the Primary Examination as often as they wish. Individuals who entered Canadian neurosurgery programs prior to July 16, 1997 may also take it. ABNS Rules and Regulations do not allow it to be offered to fellows or medical school students, etc.
Change to policy as of October 2015

ABNS online exams are scheduled in March of every year. For all who wish to take exam for credit or not; **they must notify program administration to complete your registration.** All residents who have already passed by comfortable margin can take exam for credit. As a PGY 1 it is optional, however strongly encouraged to take if you plan on studying and should not be used for practice alone. If you have any questions about your requirements for taking this exam please speak to Dr. Harter or Dr. Riina.

Licensing

All residents must apply for limited permit or permanent NYS license prior to their PGY 6 year. Copy of license should be provided to Program Manage and GME House Staff Affairs Office. USMLE step 3 is required for licensure.
I. Policy Purpose

All staff members (all NYUMC employees, including House Staff Officers and other employed medical staff members), are expected to report to work fit for duty. Individuals who report to work impaired can undermine the productivity of the Medical Center’s workforce and create a serious threat to themselves or the welfare of patients, staff, and visitors. The Medical Center, therefore, adopts the following policy and procedures to ensure that staff members are fit for duty.

II. Definitions (if applicable)

A. **Fitness for Duty** refers to the ability of a staff member to perform the essential functions of his or her job without an impairment that may pose a potential risk to patients, a direct threat to the safety of the individual staff member or to others in the workplace, and/or interfere with the performance of his or her duties, with or without a reasonable accommodation. There are primarily three categories of *impairment* associated with Fitness for Duty:

   a. Impairment associated with the use or the suspicion of use of alcohol or illegal drugs;

   b. Impairment associated with behavior that may pose a direct threat to the employee or to others in the workplace; and

   c. Impairment caused by a medical condition, including mental health, and/or the use of medication for that condition

III. Policy
A. Suspected Alcohol and/or Illegal Drug Use

a. Procedures During Regular Business Hours for House Staff Officers: If any House Staff Officers are suspected of being impaired while at work, the program director should contact the NYU Office of GME, in accordance with the Corrective Action And Disciplinary Policy For House Staff Officers. The Office of GME will refer the House Staff Officer to the NYUMC Employee Health Service (EHS). The EHS clinician shall examine the individual to determine if he or she is working under the influence of alcohol and/or an illegal drug. The exam may include, but not necessarily be limited to, toxicology testing of blood or other body fluids. House Staff Officers who refuse to undergo such examination may be suspended and/or dismissed from the training program in accordance with the Corrective Action And Disciplinary Policy For House Staff Officers.

After the EHS evaluation the House Staff member will be placed on paid medical Leave of Absence (“LOA”), in accordance with the Corrective Action And Disciplinary Policy For House Staff Officers, pending the results of the evaluation for alcohol or substance abuse. As part of this process, the House Staff Officer will be evaluated by a physician designated by the Institution. After proper evaluation and consultation with the House Staff member and the Office of GME, the designated physician may refer the individual to the Committee for Physician Health of the New York Medical Society (CPH) or another medical provider. The House Staff Officer may be asked to complete consents for release of relevant information to applicable parties such as the designated physician, EHS, and the Office of GME. Staff unwilling to comply with the treatment recommendations of the designated physician will be reported to the Office of GME and the House Staff Officer will be subject to disciplinary action as defined in the Corrective Action And Disciplinary Policy For House Staff Officers.

b. Procedures During Non-Business Hours For House Staff Officers - If a House Staff Officer requires assessment during hours when EHS is closed, he/she should be accompanied by their respective department leadership to the Emergency Department of NYU Hospitals Center or Bellevue for an assessment. Refusal to participate in the evaluation for alcohol or substance abuse will be deemed an admission of usage and may subject the individual to suspension and/or dismissal. If the individual is immediately assessed as unable to work, he/she will be released from work pending the results of the evaluation. The department leadership individual who accompanied the House Staff Officer to the ER should notify EHS and Office of GME of the incident to ensure proper collaboration and follow-up utilizing procedures as described above.
c. Procedures During Regular Business Hours For All Other Staff - Staff members who report to work appearing to be under the influence of alcohol and/or illegal drugs will not be allowed to work. Employee Relations should be consulted and the employee immediately referred to the EHS. The EHS clinician shall evaluate the individual to determine if he or she is working under the influence of alcohol and/or an illegal drug. Evaluation may include, but not necessarily be limited to, toxicology testing of blood or other body fluids. Refusal to participate in the toxicology screening will be deemed an admission of usage and the staff member will be immediately suspended, pending further investigation, and will be subject additional disciplinary action up to and including termination.

At the time of the EHS evaluation, the individual will be released from work (without pay) pending the results of the evaluation for alcohol or substance abuse. EHS will notify the appropriate department leadership and Employee Relations of the decision to remove the individual from the workplace. As part of this process and after proper evaluation and consultation with the staff member, the Clinical Director of Employee Health Service may refer the individual to another provider or the organization’s Faculty and Staff Assistance Program (FASAP) provider, which will provide assessment and referral for treatment and case management. The staff member may be asked to complete consents for release of relevant information to applicable parties such as EHS, and the Employee Relations Department. Staff unwilling to comply with the treatment recommendations will be reported and may be discharged from employment.

d. Procedures During Non-Business Hours For All Other Staff - If a staff member requires assessment during hours when EHS is closed, he/she should be accompanied by their respective department leadership to the NYU Hospitals Center Emergency Department for an assessment. Refusal to participate in the evaluation for alcohol or substance abuse will be deemed an admission of usage and the staff member will be subject to suspension and/or termination. If the individual is immediately assessed as unable to work, he/she will be released from work pending the results of the evaluation. The staff member’s department leadership should notify EHS and Employee Relations of the incident to ensure proper collaboration and follow-up utilizing procedures as described above.

B. Impairment Associated with Behavior that Poses a Direct Threat to Safety in the Workplace
a. Procedures For House Staff Officers - House Staff Officers who exhibit inappropriate or unusual behavior presenting a direct threat to themselves or others in the workplace will be referred to the designated physician for evaluation. If the designated physician determines that the individual’s behavior poses a direct threat to his or her health and safety, or to the health and safety of others in the workplace, he/she may be referred to EHS for testing, to CPH, or to another medical provider for further assessment; such evaluations will become part of the individual’s confidential health record. The NYU Medical Center Security Department should be contacted as necessary for assistance in handling any House Staff Officers posing such a threat to health or safety. For House Staff Officers exhibiting behavior that is an imminent threat to health and safety in the workplace, and if inappropriate or unusual behavior occurs during hours when the designated physician is unavailable, department leadership shall escort the House Staff Officer to the NYU Hospitals Center or Bellevue Emergency Department for an assessment. If the individual is immediately assessed as unable to work, he/she will be released from work pending the results of the evaluation. The House Staff Officer’s department leadership should also notify EHS and the Office of GME of the incident to ensure proper collaboration and follow-up utilizing procedures as described above. The NYU Medical Center Security Department should be contacted as necessary for assistance in handling any staff members posing such a threat to health or safety.

b. Procedures For All Other Staff - Staff members who exhibit inappropriate or unusual behavior presenting a direct threat to themselves or others in the workplace will be referred to EHS for evaluation. If EHS determines that the individual’s behavior poses a direct threat to his or her health and safety, or to the health and safety of others in the workplace, he/she shall be referred by EHS to the FASAP (1-800-833-8707) for further assessment. Such evaluations will become part of the individual’s confidential health record. The NYU Medical Center Security Department should be contacted as necessary for assistance in handling any staff members posing such a threat to health or safety. For staff exhibiting behavior that is an imminent threat to health and safety in the workplace, and if inappropriate or unusual behavior occurs during hours when EHS is closed, department leadership shall escort the staff member to the NYU Hospitals Center Emergency Department for an assessment. If the individual is immediately assessed as unable to work, he/she will be released from work pending the results of the evaluation. The staff member’s department leadership should notify EHS and Employee Relations of the incident to ensure proper collaboration and follow-up utilizing procedures as described above. The NYU Medical Center Security Department should be contacted as necessary for assistance in
handling any staff members posing such a threat to health or safety.

C. Impairment Caused by a Medical Condition, Including Mental Health - A staff member may be asked to submit to a medical examination or some other form of disability-related inquiry when the department leadership has a reasonable belief, that the individual’s ability to perform the essential functions of his or her job is impaired by a medical condition, including mental health and/or the use of medication for that condition. The results of the medical examination and/or psychiatric evaluation will become part of the staff member’s confidential health record.

a. Procedures for House Staff Officers - Department leadership must contact the Office of GME for guidance prior to making a disability-related inquiry or requiring a physical examination or psychiatric evaluation. The Office of GME will review each request for a medical examination or to make a disability-related inquiry on a case-by-case basis. A referral to the designated physician or CPH may be appropriate for evaluation of House Staff Officers, who may be impaired due to a mental health condition and/or the use of medication for that condition.

b. Procedures for All Other Staff - Department leadership must contact Employee Relations for guidance prior to making a disability-related inquiry or requiring a physical examination or psychiatric evaluation. Employee Relations will review each request for a medical examination or to make a disability-related inquiry on a case-by-case basis. A referral to FASAP (1-800-833-8707) may be appropriate for evaluation of staff members, who may be impaired due to a mental health condition and/or the use of medication for that condition.

D. Fitness to Return to Work

a. Procedures for House Staff Officers - CPH or an individual treating physician will advise the designated physician and the Office of GME when the House Staff Officer being monitored has been deemed able to return to work with or without a reasonable accommodation. If accommodation is requested, the Employee Relations office should be involved. The individual will be required to provide documentation of the clearance to return to work from the treating facility/physician or CPH. If the House Staff Officer was on a temporary leave due to treatment for alcohol or illegal drug abuse, that individual will be required to provide documentation to the designated physician showing either completion of treatment and/or ongoing treatment,
depending on the circumstances of the leave. The designated physician will review and verify the source of all fitness for duty documentation submitted by the House Staff Officer. The designated physician will then consult with the individual’s Program Director and the Office of GME regarding the individual’s ability to return to work to perform the essential functions of his or her job with or without a reasonable accommodation. For those clearances involving the treatment for alcohol or drug abuse, the House Staff Officer may be required to submit to random alcohol and/or drug toxicology screening following their return to work, which will be performed at an appropriate facility with the recommendation of the designated physician. In addition, the individual’s compliance with their treatment program will be monitored until treatment is completed.

b. Procedures for Other Staff - FASAP or an individual treating physician will advise EHS and Employee Relations when the staff member being monitored has been deemed able to return to work with or without a reasonable accommodation. If accommodation is requested, the Employee Relations office should be involved. The individual will be required to provide documentation of the clearance to return to work from the treating facility/physician or FASAP. If the staff member was on a temporary leave due to treatment for alcohol or illegal drug abuse, that individual will be required to provide documentation to EHS showing either completion of treatment and/or ongoing treatment, depending on the circumstances of the leave. The EHS clinician will review and verify the source of all fitness for duty documentation submitted by the staff member. The EHS clinician will then consult with the individual’s department leadership and the Employee Relations representative regarding the individual’s ability to return to work to perform the essential functions of his or her job with or without a reasonable accommodation.

E. Assistance Agencies:

a. Faculty and Staff Assistance Program (FASAP), provided by Corporate Counseling Associates 1-800-833-8707 (24/7).

a. Committee for Physician Health 1-800-338-1833.
# Mandated Online modules for House Staff

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<td>ALL House Staff</td>
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<td>iDevelop</td>
<td>ALL house staff. Level 1 Checklist item for incoming house staff.</td>
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<td>iDevelop</td>
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<td>BH Peoplesoft</td>
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<td>Emergency Management: ETHS Fire &amp; Emergency Procedures</td>
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NYULMC Medical Library

Visit the NYU Medical Library on atNYULMC under Popular Links.
http://central.nyumc.org/shared/lib/Pages/Home.aspx
On Call Rooms

GENERAL INFORMATION

Neurosurgery On-Call rooms available
Bellevue Hospital – 7S33
Tisch Hospital – 12th Floor, Jr On-call Room and Chief On-call room (keys are available in the program manager’s office in BH 7S4)

Apartments **1A and 2G (rooms 2G2 & 2G3)** are used for temporary overnight lodging for House Staff and Physical Medicine and Rehab personnel. Apartment 1A is an individual studio apartment. Apartment 2G is a three-bedroom suite. Each room within the 2G apartment is identified with “1”, “2” or “3” on the door.

Room 1A – For House Staff personnel lodging ONLY.

Room 2G-1 -- For Physical Medicine and Rehab personnel lodging ONLY.

Room 2G-2 – For House Staff personnel lodging ONLY.

Room 2G-3 – For House Staff personnel lodging ONLY.

Physical Med & Rehab administrative staff will monitor key issuance, tracking and control for their personnel using **2G1**. Security does not have a role or responsibility in this.

The keys for rooms 1A, and 2G-2 and 2G-3 will be dispensed by Greenberg Hall Security staff. Keys are tracked and monitored by the Graduate Medical Educational (GME) office.

KEYS
There are three rings located at the Greenberg Security Desk (Post 22). The aluminum plate will state either “APT 1A”, “APT 2G – 2” or “APT 2G –3”. For “APT 2G – 2” and “APT 2G – 3”, the key ring will have two keys. One key will be to enter the apartment; the other key is for the room. Gender will not play a role in how the keys are distributed.

PROCEDURE
There will be a listing of authorized house staff in a binder at the GBH security desk.
which is updated monthly. The keys will be issued on a first-come, first-served basis. The intent is for one-night stays under normal circumstances. Security will not monitor length of stays.

DO NOT LEAVE ANY PATIENT INFORMATION OR PERSONAL ITEMS BEHIND WHEN YOU LEAVE THE ROOM FOR THE NIGHT/DAY.

The procedure is as follows:

- A House Staff member will request a key to the apartment from the security officer in the Greenberg Hall Lobby.

- The security officer will inspect the member’s valid ID badge and cross reference it against the House Staff list provided by the GME office. The badge must state “House Staff”. “Visiting House Staff” are not authorized to use these rooms.

- Once validated, a line entry will be completed in the On-Call House Staff Lodging Record form; the key will then be issued.

- Weekdays at noon-time (1200 hrs) Monday-Friday, the GBH security officer will place a call to the GME office (212-263-5506) stating the status of the two sets of keys. The office is closed weekends/holidays.

- If a key has not been returned, the GME office will be responsible to contact the House Staff member(s) to retrieve/obtain outstanding keys.

- If a key is not available when a House Staff member desires a room, the security officer will advise the requestor that the room(s) are taken / not available and have them contact the GME office if there is an urgent need for use of the room.

- If there are any problems during the shift, the security officer will contact a security supervisor at 212.263.5120 (24 hours).
Committee Participation for House Staff

House Staff are encouraged to participate in various committees (listed below).

House Staff Leadership Committee

The House Staff Leadership Committee has been newly formed by merging the Combined House Staff Committee and the House Staff Council to serve as a forum for the house staff to consolidate and voice their concerns. Louis Miller, MD is the Faculty Advisor. The committee also serves a new role as a meeting for house staff to present program activity in each of the CLER focus areas. It is a meaningful forum for house staff to interact with one another and hospital leadership in a structured way, and within the context of NAS/CLER. The members have an important role in providing feedback from programs in terms of progress, and reporting problems and new ideas. A member will also Report to the Medical Board for BH and TH. House Staff members are peer-selected residents from each core program who are voted in and appointed by the Chair of the House Staff Leadership Committee. Additional House Staff representatives may attend committee meetings as non-voting members; provide information, advice and feedback.

The Committee meets quarterly with hospital leadership and members of the GMEEC.

New members are elected annually. Please be in touch with your Program Director, Coordinator, or Chiefs if you are interested in participating!

Two current House Staff residents sit on the House Staff Leadership Committee.

House Staff Patient Safety Council

The House Staff Patient Safety Council at the NYU School of Medicine was established in June 2012. Dr. Katherine Hochman, MD is the Council's faculty advisor. The House Staff Patient Safety Council is comprised of house staff who are committed to quality improvement and patient safety throughout the institution. The hospital administration and GME Office are very interested in having residents directly engaged in patient safety and quality improvement activities, and are all fully supportive of our Council. Four executive leaders are elected by fellow house staff at a HSC meeting in the beginning of the year.

New members are elected annually. Please be in touch with your Program Director, Coordinator, or Chiefs if you are interested in joining the council!

Two current House Staff residents sit on the House Staff Leadership Committee.

House Staff Wellness Committee
The House Staff Wellness Committee has been newly formed. Carol Bernstein, MD (Psychiatry Residency Program Director) is the Council’s faculty advisor. The House Staff Wellness Committee is a subcommittee of the GMEC. It is comprised of House Staff officers. The mission of the House Staff Wellness Committee (HSWC) is to provide a structured, sustainable committee, which will identify and address issues related to the wellness and mental health needs of all House Staff at New York University Langone Medical Center (NYULMC), Bellevue Hospital Center (BHC), and the Veterans Affairs New York Harbor Healthcare System (VA-NY).

The Committee meets the second Thursday of every month at 6pm. Location to be determined.

New members are elected annually.

Two current House Staff residents sit on the House Staff Leadership Committee.
Additional Information

Identification Badges

There are at least three IDs that House Staff will need and potentially more, depending on the sites at which you will be working. The three are: NYULMC, Bellevue and the VA (Manhattan). Your program will help you determine if any additional ID badges are needed.

NYULMC ID badges

NYU Langone Medical Center policy requires all employees to wear an identification badge while on Medical Center property.

Identification badges are distributed by the NYULMC Security Office.

Location: 550 First Avenue, Room 182
Medical Science Building (MSB) – follow the yellow pathway

Phone: 212-263-5038

Bellevue ID badges

If you will be working at Bellevue Hospital, you MUST obtain a Bellevue ID badges. To do so, you may go to the Bellevue Hospital Police Office.

Location: 462 First Avenue, Room GD-17
Monday-Friday: 7:00am – 5:00pm
Closed: Noon-1:00pm

Phone: 212-562-2345

Veterans Affairs Medical Center (Manhattan Campus) ID badge

Obtaining of this ID badge requires the completion of appropriate security forms which vary depending upon your access requirements. These may include a Special Agency Check (electronic fingerprint scanning) and National Agreement Check & Inquiry.

MCIT Telecommunications
As an NYULMC Resident/Fellow, you will be assigned a personal long-range alpha/text pager capable of being activated via telephone, email or SMS text. Your personal pager will accompany you throughout your training years at NYULMC.

If you have questions about your pager please contact the Telecommunications Department.

Location: Greenberg Hall, 545 First Avenue
Level SC-1, Room 129

Hours: Monday-Friday: 9:00am – 5:00pm

Phone: 212-263-1120

**Linen Services**

Long white coats and scrubs are available to all members of the House Staff via machines located on the floors. You can retrieve your scrub code for these machines at the Linen Services Room. You must present your NYULMC ID badge when picking up or exchanging your linens.

Location: 550 First Avenue, 4th floor, Room 401 (across from the A elevator)

Hours: Monday-Friday: 6:30am – 4:00pm
Closed: 10:00am – 11:30am for inventory

Phone: 646-754-6209 (outside hospital)
Extension 73134 (inside hospital)

Machine Locations: Tisch Hospital: Floors 2, 5, 8 & 11
HCC: Floors 2 & 14
Useful Links & Resources

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<td>Bellevue HR</td>
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ACGME:
http://www.acgme.org/acgmeweb/

ACGME Webinars:

New York Medical License:
http://www.op.nysed.gov/prof/med/medlic.htm