STANDARDS OF PERFORMANCE

The Department has developed PGY specific standards of performance, which were established by consensus among Department members. These are used as the basis for evaluation and for advancement through the residency training program. They are described below:

To better comply with ACGME work hours guidelines; in 2010-2011 our program switched from monthly rotations to thirteen four-week blocks for our PGY2 and above residents. In 2014-2015 the PGY1s switched to this system as well.

**The Duties of the Residents in Each Year (Goals and Objectives)**

**PGY1.** The PGY1 year is spent acquiring fundamental clinical skills. Residents learn the principles of diagnosis, management and treatment in a broad range of clinical areas including 9 blocks of neurosurgery (2-3 of which are spend in the NCCU under the direction of our neurocritical care intensivists), 1 block is spent in our subspecialty outpatient clinics split between neuro-ophthalmology and neuro-oncology, 1 block in the Surgical Intensive Care Unit and 2 blocks of neurology (1 block inpatient and 1 block split between neurocritical care and outpatient neurology subspecialties).

Orientation to the PGY1 year is done by the University of Utah Graduate Medical Education department and includes education on sleep and sleep deprivation. The educational material on these topics is always accessible on the GME web site.

**PGY1 Goals and Objectives for Neurosurgery Rotations**

Goals: The goal of the in-patient adult neurosurgery PGY1 ward rotation at University Hospital is to assist the resident in acquiring a solid understanding of the practice of acute neurological consultation in the emergency room, neurological critical care unit, and primary in-patient medicine, the emergent evaluation, and treatment of, neurological issues on an in-patient basis with a special emphasis on operative neurosurgery. This includes the evaluation of patients by careful history and physical examination, integration of ongoing medical or surgical issues, providing a directed but complete differential diagnosis, and plan for further evaluation and management.

Objectives:

**Patient Care**

**Clinical Care Requirements:**

- Perform and document a comprehensive history and physical examination [H&P]
- Understand indications for and interpret laboratory and imaging studies
- Develop skills necessary to establish and implement an effective patient management plan, including ICU care
- Develop the skills necessary to recognize postoperative complications
- Management and care of surgical patients
Technical Skills Requirements:
- The resident will be able to perform the following procedures under appropriate supervision, as well as assist with other operative procedures:
  - Insert central lines and arterial peripheral catheters
  - Perform lumbar punctures
  - Insert ICP monitors
  - Insert ventricular drains
  - Debride wounds
  - Place stereotactic frames
  - Position patients for intracranial and spinal surgery
  - Place patient in spinal traction; tongs and halo
  - Assist with craniotomy opening, lumbar discectomy, and shunt procedures
  - Assist with spine and peripheral nerve cases

Medical Knowledge
- Perform thorough history, physical and neurological examinations with complete and timely documentation
- Demonstrate a solid foundation of neuroscience knowledge
- Demonstrate the foundation for clinical Neurosurgery problem solving and decision making

Practice-Based Learning and Improvement
- Begin to apply evidence-based practices to patient care, through self assessment, Journal Club and Faculty/Resident teaching interactions
- Learn information technology skills to access patient care resources

Interpersonal and Communication Skills
- Provide compassionate patient care
- Develop and nurture sound and appropriate interpersonal and communication skills
- Effectively integrate into the health care team

Professionalism
- Demonstrate a high level of professionalism at all times
- Establish commitment to ethical principles of neurosurgical practice
- Understand the importance of professionalism within neurosurgical practice

System Based Practice
- Begin the process of developing and understanding the variety of systems within which health care is provided
- Develop cost-effective practices by applying evidence-based information

PGY-1 Goals and Objectives for Neurology Rotations:
Goals: The goal of the adult neurology PGY-1 rotation at University Hospital is to assist the resident in acquiring a solid understanding of the practice of acute neurological disease. This is accomplished through consultation in the emergency room, neurological critical care unit (with special emphasis on acute ischemic stroke care) and evaluation, and treatment of, neurological issues on an in-patient and out-patient basis. This includes the evaluation of patients by careful history and physical examination, integration of ongoing medical or surgical issues, providing a directed but complete differential diagnosis, and plan for further evaluation and management. Residents will spend portions of this rotation in outpatient neurology
subsidiary clinics including, but not limited to neuro-ophthalmology, movement disorder, epilepsy, musculoskeletal, and neuro-immunology.

Objectives:

Patient Care:
- Evaluation of patients presenting with possible neurological disorders in the emergency room, outpatient clinics and in an inpatient setting.
- Management of patients with primary neurological disorders requiring aggressive in-patient evaluation and on-going treatment.
- Triage of acute neurological illnesses.
- Emergent evaluation of patients presenting with signs and symptoms consistent with ischemic and hemorrhagic stroke via the Brain Attack program.
- Care of stroke patients in the neurological critical care unit

Medical Knowledge:
- Exposure of PGY-1 residents to the various assortments of acute neurological issues and the disorders that masquerade as such.
- Radiological correlate of acute neurological disorders

Practice-Based Learning and Improvement:
- Begin to apply evidence-based practices to patients with neurological disorders
- Learn information technology skills to access patient care resources
- Use self assessment, Journal clubs, and Faculty/resident teaching interactions to improve practice patterns.

Interpersonal and Communication Skills:
- Effectively work with neuroscience professionals and integrate into health care team
- Develop appropriate interpersonal and communication skills
- Provide compassionate patient care

Professionalism:
- Understand the importance of professionalism within neuroscience health care teams
- Commit to ethical practice patterns
- Demonstrate a high level of professionalism in all situations and at all times

System Based Practice:
- Develop cost-effective practices through integration of evidence-based practices and protocols
- Observe and develop an understanding of the various systems by which health care is provided to patients with neurological disorders

**PGY-1 Goals and Objectives for SICU**

Goals: The goal of Surgical Intensive Care Unit for Neurosurgery PGY1 residents at University Hospital is to assist the resident in acquiring a solid understanding of the practice of critical care medicine. This includes but is not limited to management of cardiac, pulmonary, immunological, renal, gastrointestinal, nutritional, and hematological systems in the critically ill surgical patient. Emphasis is made on ventilator management, cardiac and pulmonary physiology.
Objectives:

**Patient Care:**
- Perform and document a comprehensive history and physical examination [H&P]
- Understand indications for and interpret laboratory and imaging studies
- Develop skills necessary to establish and implement an effective patient management plan for ICU patients
- Develop the skills necessary to recognize postoperative complications
- Management and care of surgical patients
- Appropriate ventilator management
- The resident will be able to perform the following procedures under appropriate supervision, as well as assist with other operative procedures:
  - Perform lumbar punctures
  - Insert central lines and arterial peripheral catheters

**Medical Knowledge:**
- Perform thorough history and physical examinations with complete and timely documentation
- Demonstrate a solid foundation of critical care knowledge
- Demonstrate the foundation for critical care problem solving and decision making
- Exposure to the various assortments of acute critical care issues and post-surgical complications
- Radiological correlate of critical care conditions

**Practice-Based Learning and Improvement:**
- Begin to apply evidence-based practices to patient care, through self-assessment, Journal Club and Faculty/Resident teaching interactions
- Learn information technology skills to access patient care resources

**Interpersonal and Communication Skills:**
- Provide compassionate patient care
- Develop and nurture sound and appropriate interpersonal and communication skills
- Effectively integrate into the health care team

**Professionalism:**
- Demonstrate a high level of professionalism at all times
- Establish commitment to ethical principles of patient care
- Understand the importance of professionalism within critical care medicine

**System Based Practice:**
- Begin the process of developing and understanding the variety of systems within which health care is provided
- Develop cost-effective practices by applying evidence-based information

**PGY2 residents** are responsible for evaluating all patients coming through the outpatient surgery department for admission prior to surgery, assisting in their surgery, and providing pre- and postoperative care in the neurosurgical intensive care unit and on the hospital floor. They are at all times supervised by a more senior resident and the faculty. They learn the details of neurological evaluation, increase their knowledge about diseases affecting the nervous system by being exposed to a wide variety of problems, read independently, perform daily rounds with the senior residents and the staff, and attend conferences.
regularly. In the operating room they learn how to set up cases and how to assist, progress to opening and closing a case, and then assume more responsibility as their skills grow. Assisting in the OR is rotated among the junior residents so that patient care out of the OR is neither neglected nor de-emphasized. Junior residents answer consultation requests from other services and the emergency room. They present these patients to the appropriate staff person. The morning after a night on call they go to the OR, learning how to position patients, set up cases, and participate in the initial stages of the procedure. They spend 4 blocks of the year in the NCCU under the supervision of the neurocritical care intensivists taking care of critically ill neurological patients, managing acute stroke patients as well as nonsurgical neurological disorders. They also take 4-5 blocks of night-float call responsibilities.

In addition to the goals/objectives of the previous year, the PGY2 resident is expected to:

**Patient Care**
- Perform and document comprehensive neurosurgery history and physical examination
- Select and interpret appropriate investigations (laboratory studies and imaging)
- Perform selected surgical procedure under direct supervision (lumbar discectomies, opening and closing of simple craniotomies, place ICP monitors and EVDs).
- Assist in major surgical procedures and perform those portions of such procedures (under supervision) that are appropriate for level of training.
- Perform initial resuscitation of patients who are critically ill with neurosurgical problems (coma, raised intracranial pressure, intracranial hemorrhage, head injury, hydrocephalus).

**Medical Knowledge**
- Localize lesions within the nervous system based on the clinical findings.
- Generate appropriate differential diagnoses for individual patients.
- Demonstrate knowledge of the anatomy and physiology relevant to clinical neurosurgery.
- Describe common neurosurgical operations and their alternatives.
- Develop a solid foundation of knowledge of the commonly encountered neurosurgery disorders.

**Practice-Based Learning and Improvement**
- Attend M&M conference.
- Review personal involvement in M&M cases with faculty and describe the changes they will make in patient care.
- Demonstrate critical appraisal skills when using the medical literature.

**Interpersonal and Communication Skills**
- Provide compassionate patient care as determined by patients, families, colleagues and ancillary health professionals.
- Develop excellent interpersonal and communication skills (verbal and written).
- Provide clear unambiguous information to other health care workers.
- Demonstrate the ability to accurately and concisely document and report findings and a plan of treatment.

**Professionalism**
- Demonstrate a high level of professionalism at all times.
- Attend all required conferences
- Complete and maintain medical records in a comprehensive and timely fashion.
**System-Based Practice**

- Demonstrate an awareness of the variety of systems within which health care is provided.

**PGY3** residents spend 4 blocks at Primary Children’s Hospital (PCH) as the junior resident, performing similar duties as the PGY2 resident at the UUMC. During this rotation the residents are involved in the care of children with neurosurgical disorders along with a senior resident and a pediatric neurosurgery fellow. They have a one-in-three call rotation from home and obtain inpatient and outpatient, emergency department, and surgical experience. Due to their increasing experience, they are allowed more operative responsibility appropriate to their skill level.

Two to three blocks of the PGY3 year are spent at UH where they work as the night float resident in the Neurosurgical Critical Care unit (NCCU). They supervise and teach the PGY-2 residents in regard to neurointensive care. They in turn are supervised by NeuroCritical Care faculty. This rotation allows the resident more time to read and study than in the PGY-2 year, but still provides intraoperative experience when on call and as the service allows.

During 3 blocks of the PGY-3 year, Interventional Radiology (IR) experience is obtained at UH. Diagnostic and therapeutic techniques are learned, as are indications and complications. Time is spent with our two endovascular trained neurosurgeons and senior interventional neuroradiologist.

One block of Stereotactic Radiosurgery (SRS) is dedicated time for radiosurgery training. We have a linear accelerator based unit at the UH and a Gamma knife at IMC. Most of the experience will be at the University but residents will have ample opportunity to participate in Gamma knife cases at IMC. Residents will attend the multidisciplinary brain tumor clinic once a week and participate in radiosurgery cases on a daily basis. Formal didactic training is provided as part of an integrated program with the radiation oncology residents.

Two blocks will be dedicated to Peripheral Nerve wherein residents will work with Dr. Mahan in the clinic and operating room to develop clinical skills in the management of patients with peripheral nerve pathology.

One block is intended for intensive board preparation time and self-study. Time on the neuropathology and neuroradiology service is also required during this time.

In addition to the goals/objectives of the previous years, the PGY3 resident is expected to:

**Patient Care**

- Perform and document comprehensive pediatric neurosurgery history and physical examination.
- Select and interpret appropriate investigations (laboratory studies and imaging).
- Describe treatment options and their pros and cons.
- Perform selected surgical procedures under direct supervision (craniotomy for metastasis, ACDF approach, craniotomy for trauma, VP shunt insertion, lumbar laminectomy).
- Assist in major surgical procedures and perform those portions of such procedures (under supervision) that are appropriate for level of training.
- Manage patients who are critically ill with neurosurgical problems throughout their NCCU stay (coma, raised intracranial pressure, intracranial hemorrhage, head injury, hydrocephalus, vasospasm, spinal cord injury, ventilator management, nutrition).
Medical Knowledge
• Demonstrate familiarity with current neurosurgical literature.
• Demonstrate a detailed knowledge of neurosurgical intensive care disorders and management.
• Demonstrate knowledge of common pediatric neurosurgical disorders.

Practice-Based Learning and Improvement
• Attend M&M conference.
• Review personal involvement in M&M cases with faculty and describe the changes they will make in patient care.
• Demonstrate critical appraisal skills when using the medical literature.

Interpersonal and Communication Skills
• Provide compassionate patient care as determined by patients, families, colleagues, and ancillary health professionals.
• Develop excellent interpersonal and communication skills (verbal and written).
• Provide clear unambiguous information to other health care workers.
• Demonstrate the ability to accurately and concisely document and report findings and a plan of treatment.

Professionalism
• Demonstrate a high level of professionalism at all times.
• Attend all required conferences
• Complete and maintain medical records in a comprehensive and timely fashion.

System-Based Practice
• Discuss the most cost efficient options for patient investigation and treatment.

PGY4. The PGY4 residents have 13 four-week blocks devoted to research. During that time period, the resident is expected to formulate and carry out a research project that may involve basic science, translational research, or clinical research. He or she works under the supervision of a research mentor and is expected to be part of or submit a research manuscript for publication at the end of the year. Several options for laboratory and/or clinical research in neuro-oncology, spine, skull base, pediatric neurosurgery, and clinical trials are available during this year. Some residents participate in relevant course work at the University of Utah School of Graduate Medicine, and several have earned graduate degrees. Residents on their elective rotations are responsible for two days per month of junior resident level call at UH as well as outpatient telemedicine clinics ½ day twice monthly.

In addition to the goals/objectives of the previous years, the PGY4 resident is expected to:

Patient Care
• Develop an appropriate plan for the research rotation.
• Learn the necessary techniques for the research.
• Complete research tasks on time.

Medical Knowledge
• Acquire an in depth knowledge of the literature relevant to their research.
Practice-Based Learning and Improvement
• Learn from previous research and research performed on this rotation, and based on that, plan/suggest future experiments.

Interpersonal and Communication Skills
• Present/describe the research so that other residents/faculty can understand it.

Professionalism
• Work well independently.
• Adhere to ethical principles of research conduct.
• Adhere to ethical principles of animal care and experimentation (if appropriate).

System-Based Practice
• Be aware of the clinical relevance of the research.
• Understand the cost of conducting the research.
• Understand the potential implications of the research on healthcare delivery.

PGY5 residents assume more senior clinical duties within the department. Their year is typically split between IMC, PCH and UH, acting as a senior resident in those locations.

In addition to the goals/objectives of the previous years, the PGY5 resident is expected to:

Patient Care
• Teach a comprehensive neurosurgery history and physical examination.
• Select and interpret appropriate investigations (laboratory studies and imaging).
• Describe treatment options and their pros and cons.
• Perform selected surgical procedures under direct supervision (for example, craniotomy for glioma, ACDF, craniotomy for trauma in an acutely ill patient, pterional craniotomy and exposure of ICA, split Sylvian fissure, closure of myelomeningocele, repair of sagittal synostosis, insertion of VNS, lumbar laminectomy, microdiscectomy, posterior cervical stabilization).
• Assist in major surgical procedures and perform those portions of such procedures (under supervision) that are appropriate for level of training.
• Begin to direct in/outpatient care.
• Teach residents/interns/students selected noncomplex surgical procedures appropriate to their level of training.

Medical Knowledge
• Demonstrate detailed knowledge of the current neurosurgical literature.
• Demonstrate a detailed knowledge of complex neurosurgical disorders.
• Demonstrate detailed knowledge of complex neurosurgical procedures.
• Teach/mentor PGY2/3 residents.

Practice-Based Learning and Improvement
• Attend M&M conference.
• Review personal involvement in M&M cases with faculty and describe the changes they will make in patient care.
• Demonstrate critical appraisal skills when using the medical literature.
Interpersonal and Communication Skills
• Provide compassionate patient care as determined by patients, families, colleagues and ancillary health professionals.
• Develop excellent interpersonal and communication skills (verbal and written).
• Provide clear unambiguous information to other health care workers.
• Demonstrate the ability to accurately and concisely document and report findings and a plan of treatment.

Professionalism
• Demonstrate a high level of professionalism at all times.
• Attend all required conferences
• Complete and maintain medical records in a comprehensive and timely fashion.

System-Based Practice
• Demonstrate an understanding of different types of neurosurgical practice and their pros and cons.
• Understand and consider the health care costs of their management decisions.

PGY6. During this time the resident is a senior member of the Neurosurgical housestaff. The resident begins to direct patient care and supervise junior residents in preparation for the PGY7 (chief) year. This year also provides additional clinical experience that can be tailored to the resident’s needs and career aspirations. An elective rotation focused in a subspecialty area of clinical neurosurgery may be provided depending upon the resident’s interests and strengths. This usually consists of clinical neurosurgery at UH and IMC but could be an away elective as approved by the program director, Designated Institutional Official (DIO), and the Neurosurgery Residency Review Committee (RRC) as appropriate. This time provides additional clinical experience that can be tailored to the resident’s needs and career aspirations. Residents that are found to have deficiencies in their clinical or surgical skills can use this time for tailored instruction in surgical technique and improvement in clinical knowledge base.

In addition to the goals/objectives of the previous years, the PGY6 resident is expected to:

Patient Care
• Demonstrate increasing ability to make independent decisions regarding patient care
• Demonstrate proficiency in a chosen subspecialty area of patient care
• Perform advanced surgical procedures under direct supervision in their chosen subspecialty area.
• Teach residents/interns/students selected noncomplex surgical procedures in their chosen subspecialty area.

Medical Knowledge
• Demonstrate a detailed knowledge of the neurosurgical disorders, procedures and literature relevant to their chosen subspecialty area
• Teach/mentor other residents in their chosen subspecialty area

Practice-Based Learning and Improvement
• Attend M&M conference.
• Review personal involvement in M&M cases with faculty and describe the changes they will make in patient care.
• Demonstrate critical appraisal skills when using the medical literature.

Interpersonal and Communication Skills
• Provide compassionate patient care as determined by patients, families, colleagues and ancillary health professionals.
• Develop excellent interpersonal and communication skills (verbal and written).
• Provide clear unambiguous information to other health care workers.
• Demonstrate the ability to accurately and concisely document and report findings and a plan of treatment.

**Professionalism**
• Demonstrate a high level of professionalism at all times.
• Attend all required conferences
• Complete and maintain medical records in a comprehensive and timely fashion.

**System-Based Practice**
• Demonstrate an understanding of different types of neurosurgical practice and their pros and cons.
• Understand and consider the health care costs of their management decisions.

**PGY7** is the chief resident year at UH. The chief residents are responsible for the administration of the service and oversee the operating room schedule. They supervise the junior residents, coordinate the service, and run teaching rounds, work rounds, and conferences. The chief residents also perform a high volume of surgical cases of increasing complexity as their skills allow.

**In addition to the goals/objectives of the previous years, the PGY7 resident is expected to:**

**Patient Care**
• Demonstrate the ability to perform all general neurosurgical procedures independently.
• Demonstrate the highest level of patients care skills, problem solving skills and technical skills.
• Manage and administrate the complexities of a large clinical and academic service.

**Medical Knowledge**
• Instruct and nurture junior residents in critical care related procedures, intensive care unit, call, etc.
• Demonstrate the ability to teach effectively.
• Manage and lead the patient care conference.
• Assist program director in overseeing personal, academic and clinical growth and development of junior residents.
• Participate actively and lead conferences in a manner that demonstrates a high level of awareness regarding clinical neurosurgery, applied research, an understanding of the literature, neurosurgical education and program building.

**Practice-Based Learning and Improvement**
• Manage and administrate the complexities of a large clinical and academic service.
• Develop skills as program builder and an administrator of the neurosurgical service.

**Interpersonal and Communication Skills**
• Demonstrate a high level of interpersonal communication skills.
• Provide compassionate patient care as determined by patients, families, colleagues and ancillary health professionals.
• Develop excellent interpersonal and communication skills (verbal and written).
• Provide clear unambiguous information to other health care workers.
• Demonstrate the ability to accurately and concisely document and report findings and a plan of treatment.

Professionalism
• Demonstrate a high level of professionalism at all times.
• Attend all required conferences
• Complete and maintain medical records in a comprehensive and timely fashion.
• Act as mentor to junior residents.

System-Based Practice
• Demonstrate understanding of legal issues in neurosurgery.
• Demonstrate a high level of understanding regarding practice types, medical economics and medical politics.
• Incorporate evidenced-based methodologies on an ongoing basis to the clinical practice of neurosurgery.
• Develop and demonstrate a high level of knowledge and skill in each of the subspecialties of neurosurgery.
• Develop, nurture, and demonstrate high level leadership skills.
UNSATISFACTORY PERFORMANCE

Any resident who receives an unsatisfactory rating on a rotation or who otherwise is not performing in a satisfactory fashion as determined by the faculty and program director will be reviewed for corrective action. Specific recommendations from these reviews might include:

1) Suggesting specific corrective actions  
2) Requiring repeating some time  
3) Requiring special programs such as counseling  
4) Placing an individual on academic probation  
5) Terminating the individual if prior corrective action and/or probation have not been successful or immediately if behavior is especially egregious

The resident will be given an opportunity to remediate unsatisfactory performance. They will be advised as to the length of the probationary period and what must be accomplished in order to be removed from probation.

ACADEMIC ACTION AND DISPUTE RESOLUTION

The University of Utah Hospital and Clinics Academic Action, Dispute Resolution, and Hearing Procedures Policy detailed in Section 12.1 of the University of Utah Hospital Resident Policies and Procedures Manual will be followed. This has been adopted to assure that all actions regarding resident disciplinary action or probation are enacted fairly.

OTHER RULES AND GUIDELINES

A. General

1. Residents are at all times expected to exhibit appropriate and professional behavior towards patients, staff and fellow residents.  
2. Residents are required to follow the procedures and meet the standards and requirements detailed in the University of Utah Hospital Resident Policies and Procedures Manual (http://medicine.utah.edu/gme/policies/index.php) unless otherwise specified in this document.  
3. Residents are expected to answer all pages promptly.

B. Medical Records

1. Residents are expected to adhere to the medical record policy of the institution. This includes the timely preparation of both discharge summaries and operative dictations as well as timely correction of any oversights that have occurred.  
2. Every patient admitted to the hospital will have a history and physical recorded on the medical record. If this is done by an intern or medical student it will be reviewed by the appropriate neurosurgery resident and any additions that are necessary appended to it.  
3. Every patient going to surgery will have their history reviewed and be examined by the most senior resident who is scrubbing on the procedure.  
4. The resident assigned to the case will be responsible for entering appropriate patient data into either the Op Coder patient database or completing the operative dictation. The residents involved in the case will also enter the operative data into the ACGME Case Log System according to their level of participation.
5. Hospital policy requires orders to be rewritten after any procedure done in the operating room regardless of the anesthetic. For small procedures done outside the operating room under local anesthesia only, a "resume all previous orders" order can be written.

6. Residents with an excessive number of incomplete charts will not be allowed to scrub in surgery until these charts are completed. Accumulation of undictated reports or summaries will result in suspension, with the need to make up suspended time to complete the residency.

C. Professional Attire


D. Special Consideration for Pregnant Residents Regarding Radiologic Exposure

The Department of Radiology has very reasonable guidelines of exposure during pregnancy and these guidelines and will be the official policy of this department as well.

E. Resident/Staff Communications

The attending neurosurgeon should be notified as expeditiously as possible of any significant worsening in the patient's condition. Any major treatment decisions should be coordinated with the attending staff as well. All patients at University Hospital and Primary Children's Hospital are private patients and have an attending surgeon. The attending staff should be notified of any patient of theirs who is admitted to the hospital or transferred to or from the service. No patient will be taken to surgery unless the attending surgeon is either in house or immediately available except in the case of a life-threatening situation in which the most senior resident available may proceed while the support staff attempts to notify the attending surgeon or, if unable to contact him, contact any other staff surgeon.

F. Drug Testing

The Department of Neurosurgery has adopted the Graduate Medical Education Drug Testing Policy detailed in Section 1.7 (Reviewed January 2011) of The Resident Policies and Procedures Manual.

G. Additional Items

1. Residents should notify the program director or department chair if at any time they feel they are not getting regularly scheduled time off or feel that their educational experience is suffering from a service load that has been given to them.

2. The University of Utah Employee Assistance Program (EAP) is a confidential counseling service sponsored by the University to help residents and their family members with a variety of personal concerns including family and relationship issues, stress, grief, depression, anxiety, alcohol/drugs, workplace issues, management consultation and more. The EAP can also provide advice and referrals to help resolve legal, financial, childcare and eldercare concerns. No fees or co-pays are required when using the EAP. The University has agreed to provide these services to benefit eligible employees and their dependents as part of their benefit package. See Section 3.4 (Reviewed January 2011) of The GME Resident Policies and Procedures Manual for details.

3. The Department of Neurosurgery at the University of Utah is committed to maintaining a drug-free workplace. When faced with the problem of an impaired physician, Utah Recovery Assistance Program (URAP) is available as a resource to the UUHSC. The Utah Department of Commerce’s Division of Occupational and Professional Licensing have established the URAP as an alternative to formal disciplinary action. The purpose of the URAP is to monitor chemically-dependent licensed
professionals in a manner that promotes confidentiality for the licensed professional while assuring the safety of his or her patients as well as protection for the livelihood and professional licensure of the participant, confidentiality—a private agreement instead of public action, and incentives and support to help participants remain substance-free. If a resident has a problem with drugs or alcohol, has a patient with a professional license who needs help, or knows of another licensed professional who needs assistance, they can contact URAP at 801-530-6106. Please see the GME Resident Policies and Procedures Substance Abuse Policy 9.3 (Reviewed October 2010) for more details.

**F. Resident Support**

**University of Utah Hospital:** At UH, there is a nurse specialist for every two attending surgeons and administrative assistant assigned for every three-four attending surgeons. The nurse specialists provide assistance in the care and management of inpatients and outpatients. They provide an especially valuable interface with patients and families. They take care of scheduling of imaging and follow up appointments and answer patient and family questions. They are also involved in clinical research studies for the appropriate attending. The clinical trial office provides help with IRB regulatory protocols, data collection, and study procedure management. There are nurse practitioners or physician assistants for disease specific teams including spine and neurosurgical oncology. They help with outpatient clinic visits and staple removal, education, and wound checks. There are also nurse practitioners that help with the inpatient service. They round with the team, arrange inpatient imaging, laboratories and perform minor procedures as need. They do the patient discharge summaries and arrange for follow-up visits. Case managers take care of finding outside nursing facilities when needed, evaluating insurance and arranging transport as needed. Pharmacists reconcile home medications with in-patient orders. UUMC has all of the usual support services including phlebotomists and respiratory therapists. The retrieval of imaging studies for surgical procedures is facilitated by a digital imaging system. Hospital dictation is easily available from any telephone in the hospital. Outpatient clinical personnel are provided by both the hospital and department. In addition, the department provides full secretarial and administrative support to the residents. A full-time medical editor, a medical illustrator and a computer/audiovisual specialist assist with preparation of presentations and scholarly manuscripts.

**Primary Children’s Hospital:** At PCH, secretarial and administrative support is provided. There is a nurse practitioner and a clinical nurse specialist. The nurse practitioner assists with the care and management of inpatients. After morning rounds, a list of tasks for the inpatients is reviewed and the nurse practitioner performs drain removals, suture removals, patient education and discharge and arranges imaging tests and consults. She does not participate in surgery. The clinical nurse specialist is in charge of the clinics and deals with calls from outside physicians and patients. She also performs surgical scheduling.

Both hospitals have an on-call room available adjacent to the clinical areas. Both hospitals provide a food allowance for residents on call and both hospitals have a medical library on site. In addition, there is a neurosurgery library in the office area of the adult division at UH and in the office area at PCH. Internet access is readily available and online journal search and ordering capabilities are provided to our residents for patient care and scholarly pursuits.

**Intermountain Medical Center:** At IMC the inpatient acute neurosurgery service is staffed by 2 advanced practitioners. Currently, there is coverage 12 hours a day, seven days a week between 7:00 a.m. and 7:00 p.m. The responsibilities of these practitioners (a nurse practitioner and a P.A.) include daily work rounds, coordinator of care, discharge planning, dictation, as well as ICU and ER evaluation. The facility has ancillary support for technical services such as blood drawing, placement of arterial lines, EKG, and patient transport. The resident would not be relied upon to perform any of these tasks. The hospital provides dictation service and utilizes an electronic medical record with POE and image
retrieval. The neurosurgery office has staff to coordinate outpatient care. This includes administrative support for completing letters, insurance forms, scheduling, suture removal, prescription refills, and documentation management.