Neurological Surgery Residency Program
Columbia University Medical Center
Goals and Objectives NS 5

Upon completion of the NS5 year, NS residents will be expected to meet the following educational goals and objectives:

**Patient Care**
- Construct a plan of management for more complex nervous system problems (i.e.: craniosynostosis, spinal dysraphism, spasticity, cerebral and spinal arteriovenous malformations, aneurysms, skull-base tumors, etc.)
- Assess patients and plan management with minimal preceptor assistance
- Begin to supervise others in providing patient care
- Provide supportive and compassionate care to patients and their families

**Demonstrate surgical proficiency in:**
- Patient positioning
- Knowledge of specific procedure
- Speed and efficiency
- Knowledge and use of instruments
- Flow of operation
- Intraoperative judgment
- Use of assistants
- Respect for tissue

**Surgical Specifies**
- Demonstrate ability to stop bleeding from venous sinuses and aneurysms
- Perform endoscopic drainage of cysts, shunt catheter placement, ventriculostomy
- Perform epilepsy surgery
- Perform complex spinal instrumentation
- Perform transsphenoidal surgery
- Demonstrate the ability to remove simple extraaxial tumors
- Perform carotid endarterectomy
- Perform movement disorder surgery
- Gamma Knife surgery

**Medical Knowledge**
- Demonstrate a more detailed knowledge of normal and abnormal anatomy and physiology of the central and peripheral
- Demonstrate more detailed working knowledge of disease processes of the nervous system

**Practice-based Learning and Improvement**
- Provide instruction about neurological problems to more junior residents and clinical clerks
- Instruct junior residents in neurosurgical operative techniques

Department of Neurosurgery
Jeffrey Bruce, MD, Residency Director
• Demonstrate sound habits of personal scholarship and scientific inquiry
• Demonstrate an ongoing improving ability to learn from errors

Interpersonal and Communication Skills
• Communicate with patients and their families, explaining disease processes and treatment options, including benefits, risks, and possible complications in comprehensible terms
• Work in a cooperative and sensitive manner with other health care personnel
• Give and receive advice in an objective, mature manner

Professionalism
• Respect patient's right to privacy
• Demonstrate sensitivity to the sexual, ethnic, cultural and religious characteristics of patient and family
• Demonstrate knowledge of the ethical and legal aspects of neurosurgery
• Be honest, reliable, and respectful in working with patients and colleagues

Systems-based Practice
• Practice cost effective medicine
• Apply evidence-based medicine to clinical practice