

Neurosurgery

Institution: VUMC

Duration: 4 weeks

Supervising Physician: Lola Chambless

Contact Information:
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Year of Training: PGY 1

Educational Objectives:

The goal is to gain knowledge and experience in the evaluation and management of surgical problems in patients with neurosurgical conditions.

Practice-Based Learning and Improvement

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:

- ✓ Write an accurate, detailed, and legible preoperative assessment and counseling note on all patients for which he/she serves as surgeon of record.
- ✓ Utilize assigned journal articles as well as available textbook chapters and information technology (including PubMed search and literature review)
- ✓ Participate in the education of patients, families, students, residents, and other health professionals.
- ✓ Incorporate formative evaluation feedback into daily practice.
- ✓ Sets learning and improvement goals; identifies resources, and performs appropriate learning activities including use of information technologies
- ✓ Incorporates evidence into routine clinical care decisions

Interpersonal and Communication Skills

- ✓ Communicates effectively with patients and families from varied cultural and socioeconomic backgrounds
- ✓ Uses checklists and informatics to support patient hand-offs
- ✓ Participates in breaking bad news to a patient or family
- ✓ Describes the ethical principles of informed consent, and obtains and documents this
- ✓ Prioritizes and manages simultaneous critical events
- ✓ Leads procedural pause
- ✓ Uses HIPAA safeguards to protect health information

Professionalism

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

- ✓ Seeks & accepts professional criticism
- ✓ Punctual for clinical and academic activities
- ✓ Presents appropriate attire & respectful demeanor
- ✓ Seeks patient information with reliability, industry, and confidentiality
- ✓ Recognizes individual limits in clinical situations and asks for assistance when needed
- ✓ Manages personal emotional, physical and mental health

Systems-based practice

- ✓ Effects inter-facility transfers
- ✓ Assists care coordinator with discharge and outpatient services arrangements
- ✓ Participates in interdisciplinary inpatient care
- ✓ Use health care resources responsibly (e.g., test ordering, timely discharges/transfers)

Medical Knowledge and Technical Skills

Bedside Procedures

- All procedures:
 - Recognize the indications and contraindications for procedures
 - Recognize the importance of pre-procedural timeout, consent, review of labs, etc
 - Maintain sterile field integrity during procedures
 - Be able to consent patients/families regarding procedural risks/benefits/alternatives/rationale
- External ventricular drain:
 - Manage ICP issues
 - Ascertain adequate ICP waveform, CSF egress
- Lumbar drain/puncture:
 - Adequately assess opening pressure and closing from the lateral decubitus position
 - Troubleshoot lumbar drain malfunction
- ICP monitor:
 - Manage ICP issues
 - Adequately assess ICP waveform, zero monitor
- Shunt tap:
 - Understand basic components of shunt system

Imaging

- Recognize basic pathologic cranial imaging patterns: tsah vs asah, ischemic stroke, IPH vs tumor, diffuse cerebral edema
- Recognize spinal fractures on CT imaging

Brain and Spinal Cord Tumors

- Perform thorough history and physical exam
- Recognize neurologic deterioration and initiate basic management
- Perform routine perioperative care
- Apply basic medical therapy for acute symptomatic mass lesions

Hydrocephalus

- Recognize symptomatic hydrocephalus and initiate appropriate treatment strategies

SAH

- Recognize aneurysmal subarachnoid hemorrhage bleed patterns
- Recognize indications for CSF diversion
- Understand and describe basic management of vasospasm

Brain and Spine Trauma

- Performs a history and physical exam of a comatose patient and applies a GCS score
- Recognizes neurologic deterioration and initiates workup and management, including indications for OR or ICP monitor/EVD
- Describes and applies medical management of elevated ICP

Description of Clinical Experiences:

- Intern may rotate on each of the three adult neurosurgery services (Allen, Meacham, and Pilcher) throughout the 4 weeks; the timing of each rotation will be at the discretion of the chief resident.
- Rounds: intern will round with their assigned service and aid the PGY2 during morning and (as able) afternoon rounds;
- Day Pager: intern will hold the primary adult neurosurgery pager (835-5845) 6A-6P
- OR: Intermittently may be assigned to short procedures or OR cases (lumbar drain, intraop ICP monitor, etc)
 - Encouraged to go to OR during positioning, opening and/or closure to gain more experience and proficiency in these areas, especially as the rotation goes on and increased efficiency in triage of the Pager occurs

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Description of Didactic Experiences:

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Evaluation Process:

Faculty and senior residents will evaluate the performance of each resident using these goals and objectives. Each resident on the service will evaluate the rotation, the service, faculty and any senior residents also on the rotation.

Other Important Rotation Information:
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