**NSCS 802J: General Neurosurgery**

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**COURSE DESCRIPTION:**
Students will have contact with inpatients and experience in the operating room on the General Neurosurgery Service at the VA and at MUH.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Recognize clinical neurosurgical diagnoses and discuss their management issues in some of the most common neurosurgical disorders (subdural and epidural hematomas, head/spine trauma, hydrocephalus, arteriovenous malformation, etc.). (MK, PC)
2. Perform a focused history and physical/neurological exam for neurosurgical disorders. (MK, PC)
3. Learn and be able to discuss basic neurosurgical approaches to common neurosurgical disorders, as well as the post-operative care and long-term management issues. (MK, PC, CS)
4. Understand and be able to discuss the contributions and limitations of diagnostic imagining (CT, MRI) and neurophysiological testing (EEG, EMG/NCV) in patient assessments. (MK, PC)
5. Learn and be able to discuss the non-surgical treatment of neurosurgical diagnoses and the common complications which might occur with/or without neurosurgical intervention. (MK, PC, CS)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact with adults/children in the ER, ICU, inpatients, outpatients. In the operating room students will observe common neurosurgical procedures.
2. One-on-one and group/team discussions.
3. Directed reading on general and selected topics in the Neurosciences.
4. Attendance at Neurosciences Conferences.
5. Case presentations on selected/directed Neurosurgery topics per selective director prn.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Subdural & epidural hematomas
2. Head/spine trauma
3. Arteriovenous abnormalities
4. Hydrocephalus

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
2. Direct observation and in-person feedback by attending physician and/or resident physician. (PC, PR, MK, CS, SL, PL)
3. Midpoint feedback from the course director or the assigned faculty co-director. (PC, PR, MK, CS, SL, PL)

Will students be expected to participate in call?  
☐ YES  ☒ NO
COURSE DESCRIPTION:
Students will have contact with inpatients on the Neurosurgery Service at the Ralph H. Johnson VA Medical Center and MUH and observation in the VA and MUH Main ORs.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Recognize clinically the common disorders of the spine. (MK, PC)
2. Understand and be able to discuss the various imaging modalities (MRI, CT) to evaluate spine disorders. (MK, PC, CS)
3. Perform a focused history, physical and neurological examination on patients with spinal disorders. (MK, PC)
4. Understand and be able to discuss the various treatments (surgical and non-surgical) for the common disorders of the spine. (MK, PC, CS)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact with inpatients and outpatients including selected neurosurgical OR contact.
2. One-on-one and group/team discussions (Spine Conference).
3. Directed reading on general topics in the neurosciences and selected topics in neurosurgery.
4. Attendance at neurosciences conferences.
5. Case presentations on selected spine topics.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Spinal disorders (OR and clinic contact)

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
2. Direct observation and in-person feedback by attending physician and/or resident physician. (MK, PC, PR, PL, SL)
3. Midpoint feedback from the course director or the assigned faculty co-director. (MK, PC, PR, CS, SL, PL)

Will students be expected to participate in call? ☐ YES ☒ NO
### COURSE DESCRIPTION:
Students will have contact with inpatients at Roper Rehabilitation Hospital.

### LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:

1. Recognize diseases and aging processes that cause functional abnormalities (MK)
2. Understand and utilize stages of recovery in functional disease such as stroke (Brunnstrom), brain injury (Rancho Los Amigos), spinal cord injury (ASIA), and orthopedic diseases and procedures (MK, SL)
3. Communicate functional goals and expectations to patients and caregivers (PC, CS)
4. Complete daily notes using a functionally-based template (PC)
5. Understand the roles and scope of practice and interact with members of a rehabilitation team (CS, PR)
6. Understand patient factors and other requirements for the different rehab settings (PL)
7. Prepare at least one patient care based project for presentation at a meeting or conference at the local, national, or international level (PL, PR)

### INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Direct patient contact including initial evaluation and examination with daily follow up in the inpatient setting
2. Attend interdisciplinary team conferences
3. Evaluate and examine patients in consultation to assess for rehabilitation appropriateness
4. One-on-one and didactic sessions
5. Observe patients daily in the following settings: physical therapy, occupational therapy, speech/language pathology, neuropsychology, recreational therapy
6. Produce one case presentation for submission to a meeting or conference
7. Students are expected to exercise at least 30 minutes daily while on rotation
8. Students may have the opportunity to observe an outpatient PM&R clinic

### PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:

1. Stroke, brain injury: To include hemiplegia, hemiparesis, aphasia, apraxia, neglect, dysphagia, cognitive deficit, dementia
2. Spine and/or spinal cord injuries: bowel/bladder care, skin care, wheelchair fitting, neuropathic vs musculoskeletal pain
3. Orthopedic rehab: arthropathies, fractures, multi-trauma, VTE prophylaxis
4. Communication competency: rapport, comprehensibility, effectiveness

### EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods.

1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
2. Direct observation and in-person feedback by attending physician and rehab team members. Areas evaluated include patient encounter documentation for completeness and relevance, educational self-initiative, time management, integrity, daily fitness log. (PC, PR, SL, MK, PL, CS)

Will students be expected to participate in call? 

- [ ] NO