Objectives and Expectations

As part of the University of Minnesota Medical School, the Neurosurgery Away Rotation or Externship has certain requirements that must be completed if you want to get the most out of your experience. The course includes:

a) clinical
b) operating
c) instructive/didactic, and
d) web-based components (the exam).

Bottom Line for this Rotation

1. Case listing must be completed and turned in at the end of the rotation. Filling it out as you go through the rotation will make it easier.
2. Do the Moodle cases (more information below). You can work on these throughout the rotation. You don’t need to wait until the end.
3. Do the evaluations in E*Value.
4. If you do all of this, you will be given a passing grade for your rotation.

Where do you start?

At the beginning of the rotation, you will be given The Neurosurgeon’s Handbook, and the Neurosurgery Case Listing for Medical Students. You will either see or read about these cases during your rotation. The case-related work should be completed while you are on this rotation to satisfy your clinical and operating requirements. You will be expected to work under the supervision of the Resident staff in all of your professional activities within limits set by your level of training and abilities. As part of the healthcare team, you are expected to make rounds and contribute to the “clerical” activities expected of our Residents related to diagnosis and treatment plans.

Each day, you will be responsible for two patients’ care and documentation. Attendance in clinic is required for each of the two weeks while you are on the service. Ideally, you should participate in different attending’s clinics each week. The level you achieve in all of the components of this away rotation should be appropriate for your school’s equivalent of either a third- or a fourth-year student.

In addition to learning about basic disease processes, you will be encouraged to spend time in the operating room observing specific neurosurgical procedures, such as craniotomy for tumor or aneurysm, laminectomy for ruptured disc, etc. Medical students will participate in daily teaching rounds with the Residents and a member of the attending staff.

To satisfy the instructive requirement above, you should attend Friday morning conferences and are excused from clinical activities to do so. The conference for University of Minnesota Medical Center (UMMC) starts at 6:30 and runs until 9 a.m. NOTE: Program Director Dr. Cornelius Lam will meet either by phone or in person with third-year medical students rotating at UMMC at the end of their first week of neurosurgery rotation, immediately following the Friday morning conference.

Important requirements

A basic reference list about neurosurgical care accompanies this handout. You should become familiar with these references during your rotation. Completing the web-based cases (the exam) is REQUIRED to get a grade for your neurosurgery rotation. The Moodle simulators are not graded; they aid in the study of neurosurgery during this rotation. Almost all questions have their answers in the provided handbook. Otherwise, there is a neurosurgical library and medical students have free access. Please ask the Residents about ambiguous answers or additional questions stimulated by your reading. They are required to help you. You are also REQUIRED to turn in your Neurosurgery Case Listing for Medical Students to Rachel Radman, the Residency coordinator at UMMC, or to
Tami Hauff in the Surgery Department at Hennepin County Medical Center, on the last day of your rotation. This is a medical school requirement.

Medical students doing a 4-week rotation are expected to give a 10-minute presentation on the neurosurgical subject of their choice on the last Friday of the rotation. This will take place at 6:30 a.m. at the regular Friday morning conference.

**Additional, more advanced opportunity**

Fourth-year medical students who have a sincere interest in neurosurgery as a career choice can elect to rotate on the Neurosurgical Service (NSUR 7500 - Additional, more advanced opportunity) and serve in a more involved capacity as a sub-intern or acting intern. During this rotation, medical students could take night call on occasion. Evaluation of the student during this rotation will be more rigorous and will emphasize clinical performance. Students are evaluated by the staff. An outstanding evaluation will be available to students who have performed in an exemplary manner.

**Student duty hours**

Please be aware of the medical student duty hours. The Department is in complete compliance with medical school policies and does not tolerate deviation from such. Similarly, be familiar with the grading template used by this rotation (it’s the same as for other rotations).

Medical students are required to weave core competencies into their rotation by these means:

<table>
<thead>
<tr>
<th>Instructional Methods</th>
<th>Patient Care</th>
<th>Medical Knowledge</th>
<th>Practice-Based Learning &amp; Improvement</th>
<th>Interpersonal &amp; Communication Skills</th>
<th>Professionalism</th>
<th>System-based Practice</th>
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</thead>
<tbody>
<tr>
<td>Focused Observation and Evaluation</td>
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<td>X</td>
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<td>General Performance Evaluation</td>
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<td>Structured Case Discussion</td>
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<td>Operative Logs</td>
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<td>Standardized Simulators and Case Modules</td>
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<td>Review of Patient Chart/Log</td>
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<td>Performance Feedback</td>
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<td>Clinical Experiences</td>
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<tr>
<td>Anatomic Models (in library)</td>
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We hope that the rotation will prove to be of interest and value. If you have any suggestions regarding the recommended teaching or conduct of the course, please let us know.
Helpful resources:


**Evaluations**

Medical students are evaluated by observation of their performance on clinical care rounds, in teaching conferences, and in the Neurosurgery Clinics. A passing grade requires daily participation in conferences and assigned clinical activities with evidence of independent learning. Completion of the online case simulators (the exam) is required. Grades for the rotation will be either pass or fail.

Evaluations for the away rotation program will be conducted through E*Value. You will receive an email from Rachel Radman instructing you to complete evaluations of the rotation, the faculty, and the Residents on the last day of your rotation. Evaluations must be completed in order to receive a grade for this course.

**Medical Student Rotating on the Neurosurgery Service**

The medical student in neurosurgery is required to take the exam on NSU 7200 in Moodle by the last day of their rotation; you can start taking the test at any time during your rotation. Cases covered in the exam include the following:

- Patient with seizure
- Patient with the worst headache of her life
- Patient with headache and nausea
- Patient with acute left-sided weakness
- Patient in a motor vehicle accident
- Patient with progressive right-sided weakness
- Patient with difficulty walking
- Patient with low back pain
- Patient with right ankle weakness
- Patient with right handed and arm pain
- Patient with numb right hand
- Patient in evidence-based medicine.

Please be aware that some of the questions may have more than one answer.

- Go to: https://moodle2.umn.edu/
- Click on “Log In” in the upper right corner
- Sign in with your x.500 name and password
- You will see NSUR 7200 Neurosurgery Clerkship
- Click on this and the test will be available for you to complete.