**Neuropathology Rotation Goals and Objectives**

**Rotation Director:** Andrew Lieberman, M.D., Ph. D.

The goal of the **Neuropathology Rotation** is for the resident to move from being a

**Novice (**A novice knows little about the subject, and rigidly adheres to rules with little situational perception. He/she does not feel responsible for outcomes. )

To

 **Advance Beginner /Competent** (The competent learner grasps the relevant facts, can sort information by relevance, can bring his/her own judgment to each case, and solve problems. Guidelines are adapted to unexpected events. He/she feels accountable for outcomes because of increasing decision-making.)

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| **Rotation Goals** | **Neuropathology Rotation Objectives** |
| **Medical Knowledge**Acquires knowledge of pathophysiology and laboratory manifestations of common and uncommon conditions; knows where to access information to fill gaps in knowledge.Acquires knowledge of less commonly-encountered conditions and laboratory techniques; critically evaluates knowledge sources and uses evidence-based approach  | * Recognize the normal gross and microscopic features of the CNS and PNS, including its blood supply
* Recognize the microscopic features of common glial neoplasms, embryonal tumors, nerve sheath tumors, meningeal tumors, and tumors of the sellar region
* Understand the techniques used in handling fresh muscle and nerve biopsies, and the findings that are used to make diagnoses, including normal nerve and muscle histology and histochemistry.
* Become proficient in gross examination of the CNS at autopsy, and recognize the histological features of anoxic/ischemic injury, infarction and various infectious diseases
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| **Patient Care**Is able to perform procedures necessary to generate laboratory information, gather clinical information needed to establish a diagnosis or differential diagnosis, and suggest appropriate ancillary studies. Responds to requests for consultation.  | With appropriate supervision (see below), the resident will * Understand the important considerations that affect the gross handling of neuropathology specimens for intraoperative (frozen section) and final (permanent section) evaluation.
* Dictate cogent gross descriptions, and select appropriate tissues for microscopic examination.
* O Review prepared slides and dictate preliminary reports in the correct format, correlating histologic findings with clinical findings.
* Obtain clinical history from the EMR when needed
* Order additional studies after discussion with faculty, and keep pending cases organized until completed
* Keep incomplete cases organized until completed
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| **Practice-based Learning and Improvement**Uses feedback and evaluations to generate or modify learning plan and improve skills,Adapts practices based on literature review, case outcomes, peer reviews, and system demands; seeks and gives feedback to improve self and others. | The resident:* Uses faculty critiques and personal assessment of gross descriptions and sampling to improve and refine gross dissection and sampling of similar specimens.
* Uses feedback from preliminary diagnostic errors to improve diagnostic accuracy
* Asks questions and seeks guidance in building medical knowledge and improving patient care skills
* Accesses learning sources (textbooks, medical literature, online resources) to fill gaps in medical knowledge that come to light during case discussions
* Develops increasingly efficient case management
* Accesses learning sources (textbooks, medical literature, online resources) to fill gaps in medical knowledge before coming to signout.
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| **Interpersonal and Communication Skills**Establishes collegial interactive and communication skills in dealing with others; structures reports that are clear, informative, and succinct; listens to and fulfills requests from other providers.Effectively communicates in a variety of settings, including during conferences, while providing consultations, and teaching peers.  | The resident will* Interact in a collegial way with technical staff, including histotechnologists, pathology assistants, and transcriptionists, with goal of providing optimal patient care
* Volunteer his/her opinion of cases to faculty, using correct terminology
* Dictate diagnoses that use accepted terminology, are easy to understand, and that relay the information important to patient management
* With direction, notify treating physicians of unexpected diagnoses
* Volunteer his/her opinion of cases to faculty, with explanations of rationale
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| **Professionalism**Is honest, compassionate, and respectful of others; complies with laws and regulations pertaining to medical practice; fulfills patient care and educational responsibilities faithfully. Understands professional responsibility to appear for duty rested and fit to provide service. Recognizes and responds to need for help from colleagues. | The resident:* Is present and ready for signout at the agreed time
* Admits errors or omissions and takes steps to correct them
* Protects patient privacy
* Is sensitive to issues of race, gender, ethnic background, religion, sexual orientation and other social factors in dealing with patient care and in interactions with other providers and other learners
* Treats colleagues at all levels with respect
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| **Systems-based Practice**Identifies issues related to error, cost, and the need for interdisciplinary collaboration in the delivery of health care.  | The resident:* Is vigilant regarding possible specimen, slide, or identification errors and takes steps to investigate and resolve potential errors
* Accurately assigns billing codes and quality codes to cases, and understands the role of these codes
* Discusses the cost-effectiveness in the selection of ancillary studies.
* Understands the value of intradepartmental consultation and collaboration with other departments and specialties in delivering optimal patient care.
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**Plan for Training**

The resident rotating on neuropathology will participate in all aspects of the service. For surgical neuropathology, this includes participation in frozen sections and daily sign out, where differential diagnosis will be discussed, results of special stains reviewed, and case reports dictated and verified. Select cases will be presented and discussed at brain tumor board. Muscle and nerve pathology will be signed out with the neuropathologist on call for that service, and cases will be presented at a weekly interdisciplinary conference. Exposure to autopsy neuropathology includes attendance at brain cutting conference and review of microscopic slides.

**Supervision**

The following activities are to be conducted with **Direct Supervision** (the supervising physician is physically present with the resident):

* The first 3 neuropathology specimen gross dissections—this will occur on the Room 1 rotation (mandated by ACGME; direct supervision may be provided faculty or by 3rd or 4th year resident or fellow)
* Electronic verification of diagnoses, additional or amended diagnoses, and comments.
* Frozen sections (if called upon)
* Communications with other providers.

The following activities may be conducted with **Indirect Supervision** (direct supervision immediately available either within the hospital of by telephonic or electronic communication):

* Gross dissections other than those described above

The following activities may be conducted with **Oversight** (the supervising physician is available to review with feedback after activity is completed):

* Dictation of preliminary diagnoses

Evaluation

* Electronic (MedHub) evaluation completed by faculty at the conclusion of each rotation
* Resident Inservice Examination (annually)