



## **Surgical Pathology**

### **Goals and Objectives**

During the course of residency training in Pathology, the residents are required to complete 14 months in Surgical Pathology. During any given month, 3 or 4 residents are assigned to Surgical Pathology. The residents rotate cover frozen section stations by rotation. The residents may belong to any post-graduate year (PGY1-PGY4), depending on service requirements and individual resident schedules. Regardless of the resident's PGY status, the work is the same. However, expectations and level of responsibility increase as resident seniority increases.

Surgical pathology sign out is subspecialty based. Residents will be assigned different subspecialty benches by rotation.

The material encountered during the Surgical Pathology rotation includes specimens from the following subspecialty areas:

#### **Bench 1:**

Genitourinary Pathology  
Gynecologic Pathology  
Perinatal and Placenta Pathology  
Pediatric Pathology

#### **Bench 2:**

Breast Pathology  
Cardiovascular Pathology  
Gastrointestinal Pathology

#### **Bench 3:**

Head and Neck Pathology  
Soft Tissue and Bone Pathology  
Skin Pathology  
Thoracic and Mediastinal Pathology

#### **Office sign out:**

Ophthalmic and Neuropathology  
Hematopathology

On any given day, the resident covering the service is responsible for grossing most of the accessioned cases assigned to him or her and the supervising pathologist. This allows the trainee to be exposed to a wide variety of pathologic material. The PGY-1 grossing residents are encouraged to preview all the cases they have grossed before signing them out with the



pathologist. The PGY-2 to PGY4 must preview their cases before signing them out with the pathologist.

After-hours and weekend frozen sections are covered by the resident and attending on-call.

General instructions for all residents while rotating in surgical pathology:

1. Any time off during surgical pathology rotation must be taken only after arranging coverage for service.
2. Residents are expected to review and be ready for sign out at 9:00 am. In case there is a conference residents are expected to begin sign out at 9:15am.
3. All biopsies have to be submitted the same day that they arrive in the Gross Room. Larger specimens that need longer fixation should be fixed in formalin overnight and projected the next day. Every specimen should have sections submitted within 24 hours of being accessioned in the Lab; if there are exceptions, the attending should be informed about it with an explanation.
4. Residents covering frozen sections are expected to go over the OR list and be prepared with the clinical history and any previous biopsies that the patient may have had.
5. All residents must gross at least first three of any and all specimen type under direct supervision; residents are encouraged to maintain a list of specimens that they have grossed during their training.
6. Residents are encouraged to take photographs of all interesting/complex/cancer resection specimens.
7. Residents are encouraged to understand the principles of histology (including tissue processing, embedding, cutting and histochemistry).
8. After grossing residents must leave their stations and instruments clean.

All residents in Surgical Pathology rotation will be excused from their duties during mandatory conferences.

Each resident is evaluated by the Surgical Pathology Attending staff with whom he/she worked for the period. The evaluations are performed immediately following each month.

The goals and objectives for the Surgical Pathology rotation can be divided among the 6 core competencies as defined by the ACGME.

## **Surgical Pathology Rotation Core Competencies With Respect to Level of Training**

### **PGY1/PGY2**

#### **DIAGNOSTIC AND PATIENT CARE ACTIVITIES**

Residents must develop and demonstrate a satisfactory level of diagnostic competence and the ability to provide appropriate and effective consultation in the context of pathology services.



During the first two years of training, residents are required to work towards this goal by mastering the following tasks:

- Learn to obtain pertinent information from the patient's clinical record.
- Learn the general principles for processing Anatomic Pathology specimens.
- Appropriately select tissue for sectioning, so as to obtain the necessary diagnostic information.
- Gain familiarity with stains used for microscopic sections, including H&E and special stains.
- Learn the appropriate fixatives for specific histologic preparations.
- Learn when and how to triage tissue for special studies including flowcytometry, cytogenetics and electron microscopy.
- Learn to select appropriate tissue for frozen section, freeze and cut the tissue, prepare and stain the slides.
- Learn to photograph specimens, both gross and microscopic.
- Learn to generate a Surgical Pathology report, which includes accurate patient demographics, clinical information, gross description, microscopic description, and diagnosis.
- Familiarize with the grading and staging systems used for malignant neoplasms.
- Attempt to prepare Surgical Pathology reports for commonly encountered malignancies.
- Learn to review histologic slides and arrive at an acceptable differential diagnosis.
- Learn to defend differential diagnoses relating to microscopy.
- Learn to order appropriate ancillary studies, including histochemical, immunohistochemical, molecular, and electron microscopic tests.

## **MEDICAL KNOWLEDGE**

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and epidemiological sciences and the application of this knowledge to Pathology. The residents must demonstrate the following attributes:

- Capacity to understand clinic-pathologic correlation for major diseases/tumors in all subspecialty areas of Surgical Pathology.
- Familiarity with commonly used textbooks in general Surgical Pathology and subspecialty areas.
- Ability to obtain relevant information via publications.

## **PRACTICE BASED LEARNING AND IMPROVEMENT**

Residents must be able to demonstrate the ability to investigate and evaluate their diagnostic and consultative practices, appraise and assimilate scientific evidence and improve their patient care practices. In the first two years of residency training this includes:



- Mastering the JCAHO/CAP standards and requirements for specimen submission.
- Learning the JCAHO/CAP standards regarding occupational hazards and infection control.
- Acquiring the ability to manage workflow in the gross room, provide accurate gross descriptions, and practice safety in a Surgical Pathology laboratory.
- Knowledge of available procedures for locating a missing specimen and resolving questions of specimen identity.
- Knowledge of quality control pertaining to histologic sections and special stains, including trouble-shooting of mistakes in accessioning, labeling, and misidentification of specimens.

## **INTERPERSONAL AND COMMUNICATION SKILLS**

Residents must be able to demonstrate excellent interpersonal and communication skills for effective information exchange with other healthcare providers and, if necessary, patients, and patients' families. During the initial years of training, residents will begin to develop the following:

- Ability to communicate with clinicians and other healthcare professionals in obtaining and relaying clinical information.
- Ability to communicate with attending pathologists when working up cases.
- Ability to interact with the technical and clerical support staff in the laboratory in order to expedite reporting.
- Ability to use hospital clinical information system (EPIC) while being aware of all confidentiality and security requirements.
- Ability to effectively present cases in an articulate and professional manner in departmental conferences as well as outside the department.

## **PROFESSIONALISM**

Residents must demonstrate commitment to professionalism and adherence to ethical principles.

- Become familiar with HIPAA regulations regarding patient privacy.
- Demonstrate respect for peers, medical personnel, patients, and patients' families.
- Dress appropriately.

## **SYSTEMS BASED PRACTICE**

Residents must demonstrate awareness and responsiveness to the larger context and system of healthcare and the ability to call on system resources to provide optimal Pathology. While in the first years of residency training, this includes:



- Use of appropriate and understandable phraseology in reports. Understanding of the need for timeliness for case turnaround times.
- Understanding of diagnostic coding and billing procedures. (ICD-9 and CPT codes)
- Basic understanding of federal laws (including compliance), which are applicable to Surgical Pathology.
- Basic understanding of regulatory agency standards for laboratory certification (JCAHO, CAP, MISSISSIPPI STATE).
- Understanding of quality assurance and improvement programs.
- Understanding of the cost effective practice of Surgical Pathology (for example: not ordering unnecessary stains).
- Understanding of basic risk management issues as they apply to Surgical Pathology.

### **PGY3/PGY4**

#### **DIAGNOSTIC AND PATIENT CARE ACTIVITIES**

During the final years of residency training, residents will continue to refine the skills learned in previous years, demonstrate an increased level of diagnostic competence, and provide appropriate and effective consultation in pathology. Though the work is essentially the same, at this stage, the resident will be held to higher expectations and be given increasing responsibilities. In addition to the goals and objectives listed above, the resident will demonstrate the following:

- Ability to understand how to appropriately select tissue for sectioning in order to obtain pertinent diagnostic information, integrate relevant clinical information, anticipate relevant diagnostic questions, and work with increasing independence.
- Continuing familiarity with stains used for microscopic sections, and be comfortable in ordering those necessary within the relevant diagnostic algorithm.
- In addition to refining skills at processing fresh tissue for intraoperative consultation, demonstrate increasing diagnostic accuracy at interpretation of frozen sections.
- Refine the ability to review histologic slides and arrive at the differential diagnosis.
- Assume increasing responsibility in training and mentoring junior residents.

#### **MEDICAL KNOWLEDGE**

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and epidemiological sciences and the application of this knowledge to Pathology. For the final residency years, this includes:

- Becoming increasingly familiar with the more rare entities in Surgical Pathology.
- Becoming familiar with conducting advanced literature searches and obtaining accurate and up to date information.
- Continuing to acquire and improve the skills necessary for life-long learning.



## **PRACTICE BASED LEARNING AND IMPROVEMENT**

During the final years of residency, the residents will continue to refine the ability to investigate and evaluate their diagnostic and consultative practices, appraise and assimilate scientific evidence and improve their patient care practices. In addition to the goals and objectives listed above, the residents will become increasingly involved in the following:

- Demonstrate increased confidence and advanced leadership skills while managing workflow in the gross room, providing accurate gross descriptions, and assisting junior residents as they begin to acquire these skills themselves.
- Demonstrate ability to rapidly resolve issues related to specimen processing. Refine knowledge of quality control issues, including trouble-shooting of mistakes in accessioning, labeling, and misidentification of specimens.

## **INTERPERSONAL AND COMMUNICATION SKILLS**

During the final years of training, residents will continue to build on the skills acquired in previous years, and refine their approach to communication, both interpersonal and written. In addition to those skills listed above, the senior resident will demonstrate:

- Increased confidence when communicating with clinicians and other healthcare professionals in obtaining and relaying clinical information relevant to patient care.
- Advanced understanding of the work up of individual cases.
- Increased confidence in approaching complex cases and communicating the results to the attending pathologist.
- Refined teaching skills while working with medical students.
- Initiative in assisting junior residents.

## **PROFESSIONALISM**

The skills listed above are necessary for all years of training.

## **SYSTEMS BASED PRACTICE**

The same awareness attained in the first years of residency training is carried through to the final years, with the resident demonstrating increasing understanding of the complexity of the system in which the modern practice of Surgical Pathology resides. This includes refining the skills listed above and continually developing understanding of the pathologist's role and responsibilities.

- Refinement of report phraseology. Understanding of the need for timeliness in the turnaround of cases.



- Use of diagnostic coding and billing procedures (ICD-9 and CPT codes), and applying them appropriately to reports.
- Increasing understanding of federal laws (including compliance), which are applicable to Surgical Pathology.
- Increasing awareness and understanding of regulatory agency standards for laboratory certification (JCAHO, CAP, MISSISSIPPI STATE).
- Understanding of and participation in quality assurance and improvement programs.
- Understanding of the cost effective practice of Surgical Pathology (for example: not ordering unnecessary stains).
- Understanding of basic risk management issues as they apply to Surgical Pathology.