SURGICAL PATHOLOGY

Goals and Objectives of the Surgical Pathology Rotation

During the course of residency training in Pathology, residents in AP only, AP/CP, and AP/NP programs are required to rotate many times in Surgical Pathology. Total time spent in Surgical Pathology is usually about 12 four-week blocks. During any given block, there are 4 residents assigned to Surgical Pathology. Three of these are doing the routine Surgical Pathology work, while the fourth is responsible for the frozen section activities. Depending on service requirements and individual residents’ schedules, residents in any post-graduate year (PGY1-PGY4) may be assigned to Surgical Pathology. Regardless of the resident’s PGY status, the work is the same. However, expectations and level of responsibility increase as resident seniority increases.

The Surgical Pathology service is extremely busy, with roughly 29,000 in-house accessions per year, as well as approximately 6,000 outside wet tissue biopsies. About two-thirds of the accessions are diagnostic biopsies, most of which are multipart specimens. The remaining third are resections, including a high percentage of anatomically and clinically complex composite resections.

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

- Gastrointestinal Pathology
- Genitourinary Pathology
- Cardiovascular Pathology
- Thoracic Pathology
- ENT Pathology
- Breast Pathology
- Pediatric Pathology
- Soft Tissue Pathology
- Skin Pathology
- Endocrine Pathology
- Ophthalmic Pathology

(Surgical material from several other clinical services is handled by residents assigned to other Pathology rotations. For example, there are specific mandatory rotations in Gynecologic Pathology, Neuropathology and Hematopathology. In addition, bone/soft tissue, liver, and heart and lung transplant specimens are handled by residents rotating on the Autopsy service).

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 4-week block.

The goals and objectives for the Surgical Pathology rotation can be divided among the 6 core competencies as defined by the ACGME.
Design of the Surgical Pathology Rotation With Respect to Level of Training and the Core Competencies

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 years of training, residents will begin working towards this goal in the following areas:

- Obtaining pertinent information from the patient’s clinical record.
- Knowledge of the general principles for processing Anatomic Pathology specimens.
- Ability to appropriately select tissue for sectioning, so as to obtain the necessary diagnostic information.
- Begin to gain familiarity with stains used for microscopic sections, including H&E and special stains.
- Knowledge of appropriate fixatives for specific histologic preparations.
- Knowledge of when and how to triage tissue for special studies including flow cytometry, cytogenetics and electron microscopy.
- Ability to select appropriate tissue for frozen section, freeze and cut the tissue, prepare and stain the slides.
- Ability to photograph specimens, both gross and microscopic.
- Ability to generate a Surgical Pathology report, which includes accurate patient demographics, clinical information, gross description, microscopic description, and diagnosis.
- Knowledge of the grading and staging systems used for malignant neoplasms.
- Preparation of templated Surgical Pathology reports for commonly encountered malignancies.
- Ability to review histologic slides and arrive at the differential diagnosis.
- Ability to defend differential diagnosis relating to microscopy.
- Ability to order appropriate ancillary studies, including histochemical, immunohistochemical, molecular, and electron microscopic test.
MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to Pathology.

- Understanding of clinical pathologic correlation for major diseases/tumors in all the specialty areas in Surgical Pathology.
- Familiarity with commonly used textbooks in general Surgical Pathology and in the subspecialty areas.
- Ability to obtain relevant publications via the Internet (for example: PUBMED).

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 beginning years of residency training, this includes:

- Knowledge of JCAHO/CAP/NYS standards and requirements for specimen submission.
- Knowledge of JCAHO/CAP/NYS standards regarding occupational hazards and infection control.
- 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 interpersonal and communication skills that result in effective information exchange and teaming with other healthcare providers, patients, and patient’s 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 of patient’s results.
- Ability to use the pathology laboratory information system (COPATH), and the hospital clinical information system (WEBCIS) including knowledge of confidentiality and security requirements.
• Ability to effectively present cases in an articulate and professional manner in the
department and in various clinical departments.

PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence
to ethical principles and sensitivity to a diverse patient population.

• Knowledge of HIPAA regulations regarding patient privacy.
• Respect for peers, colleagues, other medical personnel patients, and patient’s families.
• Appropriate dress.

SYSTEMS BASED PRACTICE

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

• Use of appropriate and understandable phraseology in reports. Understanding of
  the need for timeliness in the turnaround of cases.
• 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, NEW YORK 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. (Annual lecture by Risk Management department)

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, and must demonstrate a satisfactory level of diagnostic competence and the ability
to provide appropriate and effective consultation in the context of pathology services. Though the
work is essentially the same, at this stage, the resident will be held to higher expectations and be
given increasing responsibility. In addition to the goals and objectives listed above, the resident
will demonstrate the following:
- Apply advanced understanding of how to appropriately select tissue for sectioning, so as to obtain the necessary diagnostic information, integrating relevant clinical information, and anticipating relevant diagnostic questions, and working 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 will demonstrate increasing knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to Pathology. For the final residency years, this includes:

- In addition to understanding of clinical pathologic correlation for major diseases/tumors, become increasingly familiar with the more rare entities in Surgical Pathology.

- Develop familiarity with conducting advanced literature searches and obtaining accurate and up to date information, continuing to evolve 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 an 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.

- Show advanced understanding of the work up of individual cases, and take more responsibility in communicating and evolving an approach to a specimen with the attending pathologist.
• Refine teaching skills while working with medical students and taking 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 of the skills listed above, with a continually developing perspective on the role and responsibilities of the pathologist.

• 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, NEW YORK 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. (Annual lecture by Risk Management department)