

**CYTOPATHOLOGY (SHANDS HOSPITAL AT THE UNIVERSITY OF FLORIDA): Rotation
Director: Edward J. Wilkinson, M.D., Professor and Vice Chairman**

1. Description of the rotation/Duties and responsibilities of residents: This rotation provides an intense and thorough introduction to cytopathology through participation in daily service activities of the Shands Cytology Laboratory and review of cases received through the UF-Diagnostic Referral Laboratory (ACGME competencies: #1: Pt.care; #2: Medical Knowledge). The Shands Cytology Laboratory accessions approximately 14,000 cases/year (10,000 gynecologic and 4,000 medical cases of which 450 are fine needle aspirations [FNAs]). Cervical biopsies and local gynecologic excisions are signed out in tandem with cytology specimens (correlation of surgical and cytologic specimens). PGY-1 and-2 residents review the day's cases at the time of signout with the faculty member on service. PGY-3 (and optional for PGY -4) residents preview cases before signout, render preliminary diagnoses, and receive feedback at sign out (graduated responsibility). PGY 4 and 5 residents and fellows preview the slides before signout and render diagnoses, and have the option to attend sign out or receive feedback from the attending pathologist later (graduated responsibility). Access to concurrent or prior cytology or surgical pathology materials is readily available for correlation with active cases. Residents and/or fellows attend FNA procedures to evaluate specimen adequacy, provide a preliminary interpretation, and gain experience performing FNAs (needle aspirations). Trainees attend a comprehensive monthly cytopathology lecture series, with at least four of these lectures given by the cytopathology fellow (ACGME competency: #3: Practice-Based Learning). Resident collaboration on research projects is encouraged and fellow collaboration on research projects is expected (ACGME competency: #3: Practice-Based Learning). Ancillary studies, such as immunocytochemistry, cytometry, and electron microscopy are available for service, teaching and research purposes. Trainees are encouraged to critically review the literature about interesting cases they encounter on service or through teaching or research; textbooks, atlases and glass slide study sets are also available. As appropriate to the individual case or consultation under review, the ethical, socioeconomic, medicolegal, and cost-containment issues are reviewed and discussed (ACGME competency: #6: Systems-Based Practice). As well, research design, statistics and critical review of the literature are discussed. By use of the literature, Medline, and textbooks, the resident is trained to become a lifelong learner.

2. Goals of rotation: Residents new to the service are expected to become familiar with specimen preparation, the Bethesda system, and the fundamentals of exfoliative and aspiration cytology. Through graduated responsibility, the goal is to train residents so that they will be able to practice cytopathology in an autonomous manner. The fellow is expected to function at the level of a junior staff cytopathologist (how residents and fellows differ in responsibilities).

3. Duties and Responsibilities: Residents are responsible for reviewing all cytologic materials prior to sign out as time allows. Residents must attend sign outs. Residents contribute to preliminary and final reports and can act as consultants to clinicians when they have achieved sufficient experience (graduated responsibility) (ACGME competencies: #4: Communication; #5: Professionalism). Residents are to attend FNAs and, with the permission of the subject's attending physician, perform FNAs. The resident keeps a log of FNAs performed/observed. This information is kept in the resident's file for completing the application for Pathology Boards.

4. Duration of rotation: Residents: Three 4-week blocks during residency. Fellows: 12 months, with some time set aside for research.

5. Teaching staff: Peter A. Drew, M.D., Nicole Massoll, M.D., Demaretta Rush, M.D., Edward J. Wilkinson, M.D., Nancy S. Hardt, M.D., Christine Orlando, D.O., Charlene M. Lewis, CT (ASCP), Deborah A. Carroll, CT, (ASCP), David A. Lemire, CT (ASCP)

6. i. Resident Supervision: All service, teaching and research activities are supervised by attending faculty.

- ii. **Resident Evaluation:** Residents are evaluated in writing after each rotation. Fellows are evaluated quarterly. Revised 6-28-2004

Core Curriculum for the Cytopathology rotation
Edward J. Wilkinson, M. D. (Submitted 2000)

The Cytopathology rotation for residents in Pathology training is 3 to 6 months in duration, usually taken in 1 week to 4-week rotations.

For all rotations:

Resident is to review all medical cytology slides screened and submitted for review by the cytotechnologists, and as many screened cervical cytopathology slides as possible, generally no less than 10 per day of rotation.

Resident is to attend as many fine needle aspirate procedures as possible, and perform at least ten (10) FNAs during the four-year experience.

Resident is to review:

- Cytopathology teaching packet cases in the cytopathology laboratory
- 35 mm slide teaching cases and quality assurance materials from the ASC, ASCP, and other organizations
- CAP quality assurance slide materials in both GYN and Medical cytology
- Reference books available on Cytopathology in the cytopathology laboratory. Some of these books are also available in the resident library. These teaching materials include the following:

- GYN cytopathology of all types
- Pulmonary: sputum, bronchial brushings, and bronchial washings
- GI: gastric brushings, biliary tract brushings, and colonic brushings
- Peritoneal and Pleural fluid
- Bladder washings voided bladder cytology
- Bladder and urethral brushings
- Bladder samples for eosinophils
- Spinal fluid cytology
- Corneal scrapings
- Skin scrapings
- Other medical cytology samples
- Fine needle aspirations (FNA) samples from all sites including: deep and superficial organs and nodules.

These materials reflect the general medical and GYN cytology samples available in the course of cytopathology services by the cytopathology laboratory.

The pathology resident also rotates in the Gainesville VA hospital, which also has a wide variety of cytopathology cases, and especially interesting cases in pulmonary cytology.

The first rotation in cytopathology:

- Resident learns how to prepare all types of cytologic specimens, including the use of Cytec AThin Prep≡ instrumentation, cytocentrifuge, Nuclepore filtration. Body cavity fluid, corneal scrapings and pulmonary sample handling and processing are emphasized. The principles of universal precautions are emphasized, as well as the use of hoods for specimen handling.

- The resident learns the principles of the Papanicolaou stain, and how to stain slides with this stain. Problems related to this staining procedure are addressed.
- The resident learns how to determine adequacy of FNA samples at the bedside, or in the radiology suite, and works with the cytotechnologists in these procedures.

On subsequent rotations:

- Emphasis is placed on diagnostic cytopathology skills, and interpretation of cytologic findings. The use of the Bethesda System in reporting of cervical cytology is emphasized, and the variations in reactive changes, and their distinction from cellular findings associated with squamous or glandular lesions are emphasized.
- Cervical biopsies are also reviewed and diagnosed on the GYN cytopathology service which permits the resident to correlate the cervical biopsy with the cervical Pap smear from the same patient.
- The recognition of infectious agents in cervical and medical cytology is emphasized including viral, protozoan and fungal changes is emphasized.
- For fourth or fifth year residents, principles and methods of quality assurance in cytopathology are taught through the review of the Cytopathology laboratory's quality assurance methods, and reporting. Participation in review of the QA data with the director, associate director, or the supervisor is part of this process.

On the final rotation in cytology:

Review of the resident's prior experience in cytopathology is made and the resident focuses on areas not previously covered, or in which the resident is deemed, by the

faculty, or the resident, to be in need of additional experience and education.

A monthly lecture is given by the faculty or cytopathology fellow, on topics in cytopathology. These lectures are attended by all residents, as part of the weekly lecture series in Pathology provided to the residents.

The weekly Friday noon conference in Surgical Pathology includes unknown and interesting cytopathology cases, which are reviewed by all residents.