MUSC
MEDICAL UNIVERSITY
of SOUTH CAROLINA

CYTOPATHOLOGY
Department of Pathology and Laboratory Medicine

SCOPE OF PRACTICE
PGY-5

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- Recognize normal cytomorphology of cells derived from organs such as lymph node, thyroid, salivary glands, lung, liver, pancreas, kidney, adrenal gland, and soft tissues by fine-needle aspiration, washing, brushing or passive fluid collection
- **Cervical Cytology**
    - Become familiar with the Bethesda System for reporting cervical cytology
    - Recognize common cellular components in cervical specimen
    - Recognize the features of dysplasia and invasive carcinoma of the uterine cervix
    - Recognize effects of inflammation and repair, radiation, intrauterine devices on cervical cytology
    - Recognize the cytopathic effects of genital viral infection, including Human Papillomavirus (HPV), Herpes, and Cytomegalovirus (CMV)
    - Recognize common infectious agents in the female genital tract, Lepothrix, Candida, Trichomonas, and Actinomyces
    - Recognize common artifacts that may be present in cervical Pap smears (air drying, fungi, cellular degeneration)
    - Recognize the effects of hormonal stimuli on the cervical/vaginal epithelium.
- **Head & Neck Cytology**
    - Become familiar with the Bethesda System for reporting thyroid cytology
    - Recognize cytologic features of squamous cell papilloma and carcinoma of oral cavity
    - Recognize cytologic features of common salivary gland neoplasms, including pleomorphic adenoma, mucoepidermoid carcinoma, and adenoid cystic carcinoma

For information regarding this scope of practice, please contact:
Maria C. Reyes, MD, Director of Cytopathology Fellowship Training Program
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- **Respiratory Cytology**
    - Know the cytology of pulmonary viral (herpes, CMV) and fungal (histoplasmosis, Pneumocystis Carinii, blastomycosis, cryptococcosis, coccidiomycosis) infections
    - Recognize cytologic features of a granulomatous inflammation
    - Know the cytologic criteria to identify the various types of lung carcinoma
    - Become familiar with immunocytochemical profiles of common lung cancers, such as small cell carcinoma, squamous cell carcinoma and adenocarcinoma
    - Become familiar with molecular testing of lung cancers, such as EGFR and K-RAS mutations
    - Be aware of components of respiratory specimens that can be confused with malignant cells
- **Renal and Urinary Tract Cytology**
    - Become familiar with the Paris System for reporting urinary cytology
    - Recognize cytologic features of renal cell carcinoma and transitional cell carcinoma
    - Become familiar with the immunocytochemical profile of renal cell carcinoma
    - Be aware of the different constituents of voided, catheterized, and irrigated urinary bladder specimens
    - Recognize decoy cells in urine
    - Recognize BCG and other treatment related cytologic changes in urine
- **Digestive System Cytology**
    - Recognize cytologic features of benign and malignant neoplasms of the stomach
    - Become familiar with the differential diagnosis of spindle cell neoplasms (nerve sheath tumor, gastrointestinal stromal tumor, benign and malignant smooth muscle tumor) and their immunocytochemical profiles
    - Recognize cytologic features of hepatocellular carcinoma and cholangiocharcinoma
    - Recognize benign and malignant neoplasms of pancreas and potential pitfalls in endoscopic guided FNA (especially contamination with gastric and intestinal mucosa)
- **Soft Tissue Cytology**
    - Become familiar with common features of sarcomas and their immunocytochemical profiles
- **Body Fluid Cytology**
    - Be aware of the methods of CSF collection (lumber puncture vs. shunt device)
    - Know that a significant increase of any type of cells in CSF, including inflammatory cells, may constitute an medical emergency and should be reported to the clinician immediately

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- Know the features of bacterial, viral, fungal meningitis
- Know cytologic features and immunoprofiles of mesothelial cells and metastatic adenocarcinoma of different origins

- **Cytopreparation and FNA Skills**
  - Be familiar with major preparatory techniques in the cytology laboratory: conventional smear, liquid-based thin layer, routine and special stains, cytocentrifugation, and cell blocks
  - Know the cardinal rules and indication of FNA on superficial masses
  - Be able to critically analyze a clinical situation, weighed against the quantity of the specimen, and select the most appropriate cytopreparatory method
  - Master FNA technique
- **Administrative and Regulatory Issues**
  - Become familiar and compliant with federal and state regulations, including but not limited to CLIA '88, HIPPA, HCFA, etc.
  - Be aware of the essential elements of quality control and quality assurance programs in cytology

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