CYTOPATHOLOGY
Department of Pathology and Laboratory Medicine

SCOPE OF PRACTICE
PGY-5

- 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:
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• **Respiratory Cytology**
  
  o Know the cytology of pulmonary viral (herpes, CMV) and fungal (histoplasmosis, Pneumocystis Carinii, blastomycosis, cryptococcosis, coccidiomycosis) infections
  
  o Recognize cytologic features of a granulomatous inflammation
  
  o Know the cytologic criteria to identify the various types of lung carcinoma
  
  o Become familiar with immunocytochemical profiles of common lung cancers, such as small cell carcinoma, squamous cell carcinoma and adenocarcinoma
  
  o Become familiar with molecular testing of lung cancers, such as EGFR and K-RAS mutations
  
  o Be aware of components of respiratory specimens that can be confused with malignant cells

• **Renal and Urinary Tract Cytology**
  
  o Become familiar with the Paris System for reporting urinary cytology
  
  o Recognize cytologic features of renal cell carcinoma and transitional cell carcinoma
  
  o Become familiar with the immunocytochemical profile of renal cell carcinoma
  
  o Be aware of the different constituents of voided, catheterized, and irrigated urinary bladder specimens
  
  o Recognize decoy cells in urine
  
  o Recognize BCG and other treatment related cytologic changes in urine

• **Digestive System Cytology**
  
  o Recognize cytologic features of benign and malignant neoplasms of the stomach
  
  o 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
  
  o Recognize cytologic features of hepatocellular carcinoma and cholangiocarcinoma
  
  o Recognize benign and malignant neoplasms of pancreas and potential pitfalls in endoscopic guided FNA (especially contamination with gastric and intestinal mucosa)

• **Soft Tissue Cytology**
  
  o Become familiar with common features of sarcomas and their immunocytochemical profiles

• **Body Fluid Cytology**
  
  o Be aware of the methods of CSF collection (lumber puncture vs. shunt device)
  
  o 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
o Know the features of bacterial, viral, fungal meningitis
o Know cytologic features and immunoprofiles of mesothelial cells and metastatic adenocarcinoma of different origins

**Cytopreparation and FNA Skills**

o Be familiar with major preparatory techniques in the cytology laboratory: conventional smear, liquid-based thin layer, routine and special stains, cytocentrifugation, and cell blocks
o Know the cardinal rules and indication of FNA on superficial masses
o Be able to critically analyze a clinical situation, weighed against the quantity of the specimen, and select the most appropriate cytopreparatory method
o Master FNA technique

**Administrative and Regulatory Issues**

o Become familiar and compliant with federal and state regulations, including but not limited to CLIA ‘88, HIPPA, HCFA, etc.

o Be aware of the essential elements of quality control and quality assurance programs in cytology