

Preparing for the American Board
of Pathology (ABPath)
Examination of Fundamental
Knowledge and Skills

Cytopathology

Content Specifications



Overview:

Cytopathology Content Specifications

This guide outlines the content that may appear on the American Board of Pathology Cytopathology Subspecialty exam. It provides a framework based on the knowledge and skills typically covered in Fellow-level training, along with applicable Core and Advanced Resident topics from residency training that the trainee is expected to know or be able to perform.

Key to Designations:

C = Core/Foundational Knowledge

AR = Advanced Resident Knowledge

F = Fellow/Advanced Practitioner Knowledge

The exam assesses the knowledge, judgment, skills, and abilities necessary to identify specific entities, properly process specimens, and diagnose and monitor diseases using methods common in the practice of Cytopathology. The specific diseases, tests, and concepts listed in this document are important for candidates to know, but it is not possible to create a fully comprehensive list of all the material needed for certification and effective practice. Candidates should use this guide as a reference for preparing for certification and professional practice.

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1. Cervical/Vaginal Cytology

a. Screening, Indications, and Techniques	
i. Screening Guidelines – Resources	AR
ii. Ancillary Testing Techniques (e.g., HPV, p16)	AR
iii. Screening Guidelines – Specifics	F
iv. Specific Sampling Techniques	F
v. Liquid Cytology Techniques for Cervical / Vaginal	F
b. Specimen Adequacy	
i. Unsatisfactory	C
c. Normal, NILM, Including Hormonal Changes and Normal Microbiota	C
i. Contaminants, Starch, etc.	AR
d. Infections	
i. Bacterial (e.g., Vaginosis, Actinomyces)	C
ii. Fungi (e.g., Candida)	C
iii. Parasitic (e.g., Trichomonas)	AR
iv. Viral (e.g., Herpes)	
e. Reactive/Reparative	
i. Atrophic Vaginitis & Atrophy	AR
ii. Metaplastic Processes (Transitional)	AR
iii. Lymphocytic / Follicular Cervicitis	AR
iv. Reactive Glandular Processes	AR
v. Tubal Metaplasia	AR

vi. IUD Changes	F
vii. Radiation and Chemotherapy Changes	F
f. Endometrial Cells	
i. Shed Endometrial Cells	AR
ii. Directly Sampled Lower Uterine Segment	F
iii. Endometriosis	F
g. HPV Biology and Cancer Pathogenesis	
i. HPV Vaccine	F
h. Atypical Squamous Cells	
i. ASC-US	AR
ii. ASC-H	AR
i. Squamous Intraepithelial Lesions (SIL)	
i. LSIL (i.e., Low Grade Squamous Intraepithelial Lesion)	C
ii. HSIL (i.e., High Grade Squamous Intraepithelial Lesion)	AR
j. Squamous Carcinoma	AR
k. Adenocarcinoma: Endometrial & Endocervical	AR
l. Reporting Guidelines	AR
m. Endocervical AIS	AR
n. Atypical Glandular Cells	F
o. Metastatic & Rare Malignancies	F
p. Patient Management Guidelines	F
2. Other Lower Anogenital Tract, Men & Women (e.g., Anal, Vulvar)	
a. Specimen Adequacy	AR
b. Normal, NILM	AR
c. Infections (i.e., Bacterial, Fungal, Parasitic, and Viral)	AR
d. Reactive/Reparative	AR
e. Atypical Squamous Cells	
i. ASC-US	AR
ii. ASC-H	AR
f. SIL	
iii. LSIL	AR
iv. HSIL	AR
g. Squamous Carcinoma	AR
h. Reporting Guidelines	AR
i. Contaminants	AR
j. Screening, Indications and Techniques	
i. Screening Guidelines	F
ii. Specific Sampling Techniques	F
iii. Liquid Cytology Techniques	F
iv. Ancillary Testing Techniques (e.g., HPV, p16)	F
k. Adenocarcinoma	F
l. Metastatic and Other Malignancies (e.g., Melanoma)	F
m. Management of Abnormalities	F

3. Upper Female Genital Tract (e.g., Endometrium, Upper Tract Genital Tract)
- a. Ovarian Cysts
 - i. Benign (e.g., Corpus luteal, Endometriotic) F
 - ii. Malignant F
4. Pleural and Pericardial Effusions
- a. Processing / Techniques
 - i. Ancillary Studies
(e.g., IHC, Stains, Flow Cytometry, Molecular Studies) AR
 - ii. Storage / Preservation F
 - iii. Preparation Techniques
(e.g., Cytospin, Liquid-Based Preparations, Cell Blocks) F
 - iv. Cultures and Microorganism Stains F
 - b. Specimen Adequacy F
 - c. Normal Cytology
 - i. Non-Neoplastic Mesothelial Cells AR
 - ii. White Cells and Macrophages AR
 - iii. Contaminants AR
 - d. Reactive
 - i. Inflammatory AR
 - ii. Effusions (e.g., Metabolic: Cirrhosis and Renal Failure-Associated) AR
 - iii. Autoimmune (e.g., Rheumatoid, Lupus) F
 - e. Malignancies
 - i. Primary Pleural (e.g., Mesothelioma) AR
 - ii. Metastatic Adenocarcinoma
(e.g., Breast, Lung, GI, and Ovarian/Endometrial Primaries) AR
 - iii. Small Cell Carcinoma AR
 - iv. Squamous Cell Carcinoma F
 - v. Hematopoietic including Primary Effusion Lymphoma F
 - vi. Other Metastatic Malignancies (e.g., Sarcomas, Germ Cell Tumors) F
 - f. Reporting F
5. Peritoneal Effusions
- a. Processing / Techniques
 - i. Ancillary Testing
(e.g., IHC, Cytochemical Stains, Flow Cytometry, Molecular Studies) AR
 - ii. Storage / Preservation F
 - iii. Preparation Techniques
(e.g., Cytospin, Liquid-Based Preparations, Cell Blocks) F
 - iv. Cultures and Microorganism Stains F

b. Specimen Adequacy	F
c. Normal Cytology	
i. Non-Neoplastic Mesothelial Cells	AR
ii. Leukocytes and Macrophages	AR
iii. Contaminants	AR
d. Reactive	
i. Inflammatory Cells	F
ii. Effusions (e.g., Metabolic: Cirrhosis and Renal Failure-Associated)	F
iii. Autoimmune (e.g., Rheumatoid, Lupus)	F
iv. Endometriosis and Endosalpingiosis	F
e. Malignant	
i. Primary Pleural (e.g., Mesothelioma)	AR
ii. Small Cell Carcinoma	AR
iii. Metastatic Adenocarcinoma	
1. Breast Primary	AR
2. Lung Primary	AR
3. GI Primary	AR
4. Gynecologic Primary	AR
5. Pseudomyxoma Peritonei	F
iv. Squamous Cell Carcinoma	F
v. Hematopoietic including Primary Effusion Lymphoma	F
vi. Other Metastatic Malignancies (e.g., Sarcomas, Germ Cell Tumors)	F
f. Reporting	F

6. Pelvic Washings

a. Processing / Techniques	
i. Ancillary Testing (e.g., IHC, Cytochemical Stains, Flow Cytometry, Molecular Studies)	AR
ii. Storage / Preservation	F
iii. Preparation Techniques (e.g., Cytospin, Liquid-Based Preparations, Cell Blocks)	F
iv. Cultures and Microorganism Stains	F
b. Specimen Adequacy	F
c. Normal Cytology	
i. Non-Neoplastic Mesothelial Cells	AR
ii. Leukocytes and Macrophages	AR
iii. Collagen Balls	AR
iv. Contaminants	AR
d. Reactive	
i. Inflammatory Cells	F
ii. Endometriosis	F
iii. Endosalpingiosis	F
e. Malignant	

- i. Metastatic Adenocarcinoma
 - 1. Endometrial Primary AR
 - 2. Ovarian / Müllerian/Tubal Primary AR
 - 3. Pseudomyxoma Peritonei F
- f. Reporting F

7. Synovial Fluid

- a. Processing / Techniques / Indication (e.g., Crystal Analysis) F
- b. Normal Cytology AR
- c. Non-Neoplastic and Inflammatory Conditions
 - i. Infectious AR
 - ii. Gout AR
 - iii. Pseudogout AR
 - iv. Villonodular Synovitis F
 - v. Trauma Associated F
 - vi. Rheumatoid Arthritis F

8. Cerebrospinal Fluid (CSF)

- a. Normal Constituents and Contaminants
 - i. Leukocytes (e.g., Lymphocytes and Macrophages) AR
 - ii. Bone Marrow Contamination AR
 - iii. Choroid Plexus and Ependymal Cells F
 - iv. Neural and Germinal Matrix Elements F
 - v. Other Elements (e.g., Cartilage, Starch) F
- b. Infections
 - i. Bacterial & Mycobacterial AR
 - ii. Fungal (e.g., Cryptococcus, Candida) AR
 - iii. Parasitic (e.g., Toxoplasma, Trypanosomiasis) F
- c. Hematopoietic Malignancies
 - i. Precursor Lymphoid (e.g., ALL, Lymphoblastic) AR
 - ii. Large Cell Lymphoma AR
 - iii. Plasma Cell Neoplasms AR
 - iv. Other Lymphomas F
 - v. Myeloid Neoplasms F
- d. Metastatic Malignancies, Other than Hematopoietic
 - i. Carcinomas AR
 - ii. Melanoma AR
- e. Indications / Techniques
 - i. Sampling (e.g., Lumbar Puncture, Ventricular-Peritoneal (VP) Shunt) F
 - ii. Prion Disease Handling F
 - iii. Other Ancillary Testing (e.g., Flow Cytometry, Molecular Diagnostics) F
- f. Reactive / Reparative

- i. Drug and Therapy Changes F
 - ii. Shunt and Foreign Body Reactions F
 - iii. Reactive Pleocytosis (e.g., Mollaret) F
- g. Ependymoma F
- h. Glioblastoma F
- i. Neural Tumors (e.g., Medulloblastoma, Neuroblastoma, Retinoblastoma) F

9. CNS and Eye (i.e., Other Than CSF)

- a. Normal Elements F
- b. Meningioma & Hemangiopericytoma F
- c. Glioblastoma F
- d. Hematopoietic Malignancies
 - i. CNS Large Cell Lymphoma F
 - ii. Vitreous Hematopoietic Neoplasms F
- e. Melanoma
 - i. CNS F
 - ii. Eye F
- f. Metastatic Carcinomas F

10. The Urinary Tract

- a. Normal Cytology & Contamination Elements
 - i. Urothelial Cells C
 - ii. Normal Voided Urine C
 - iii. Normal Bladder Wash C
 - iv. Normal Upper Urinary Tract C
 - v. Squamous Cell Contamination C
 - vi. Intestinal Epithelium (e.g., Ileal Bladder) AR
 - vii. Contaminants AR
- b. Indications / Techniques
 - i. Indications for Evaluation AR
 - ii. Other Ancillary Testing Techniques
(e.g., Flow Cytometry, FISH, Molecular Studies) AR
 - iii. Sampling (e.g., void, instrumentation, ileal conduit) F
- c. Specimen Adequacy AR
- d. Infections
 - i. Fungal (e.g., Candida) C
 - ii. Parasitic (e.g., Schistosoma) AR
 - iii. Viral (e.g., Polyoma) AR
 - iv. Drug and Therapy Changes AR
 - v. Cast and Crystals AR
 - vi. Cystitis Cystica and Metaplasia AR
- e. Primary Malignancy of the Urinary Tract (Paris System)
 - i. Negative for High Grade Urothelial Carcinoma (NHGUC) AR
 - ii. Atypical Urothelial Cells (AUC) AR

- iii. Suspicious for High Grade Urothelial Carcinoma (SHGUC) AR
- iv. High Grade Urothelial Carcinoma AR
- v. Squamous Cell Carcinoma AR
- vi. Small Cell Carcinoma AR
- vii. Low Grade Urothelial Neoplasm (LGUN) F
- viii. Adenocarcinoma F
- f. Metastatic Tumors
 - i. Carcinoma F
 - ii. Melanoma F
- g. Reporting and Management Guidelines AR

11. Respiratory Exfoliative (Sputum, Brushing, Washing)

- a. Normal / Negative / Contamination Elements
 - i. Bronchial (e.g., Ciliated Cells, Goblet Cells) C
 - ii. Alveolar Macrophages C
 - iii. Squamous Cells C
 - iv. Other Elements
(e.g., Food, Plant Cells, Ferruginous Bodies, Starch/Talc) AR
- b. Specimen Adequacy AR
- c. Infections
 - i. Bacterial / Mycobacterial AR
 - ii. Fungal (e.g., Pneumocystis, Histoplasma, Aspergillus) AR
 - iii. Parasitic AR
 - iv. Viral (e.g., CMV, Herpes) AR
- d. Reactive / Reparative
 - i. Squamous Metaplasia AR
 - ii. Reserve Cell Hyperplasia AR
 - iii. Radiation and Chemotherapy Effects F
- e. Benign Pulmonary Disease
 - i. Asthma Changes (e.g., Creola Bodies) AR
 - ii. Lipoid Pneumonia AR
 - iii. Pulmonary Alveolar Proteinosis AR
 - iv. Pneumoconioses (e.g., Asbestosis) F
 - v. Storage Diseases (e.g., Gaucher) F
- f. Malignancies
 - i. Adenocarcinoma AR
 - ii. Squamous Cell Carcinoma AR
 - iii. Small Cell Carcinoma AR
 - iv. Carcinoid Tumor AR
 - v. Large Cell Neuroendocrine Carcinoma AR
 - vi. Salivary Gland-Type Carcinoma
(e.g., Adenoid Cystic, Mucoepidermoid) F
- g. Indications / Techniques

- i. Indications for Evaluation F
- ii. Specific Sampling Techniques F
- iii. Preparatory Techniques (e.g., Liquid-Based Preparations) F

12. Lung FNA

- a. Normal / Negative / Contamination Elements
 - i. Bronchial (e.g., Ciliated Cells, Goblet Cells) C
 - ii. Alveolar Macrophages C
 - iii. Other (e.g., Mesothelial Cells, Cartilage) AR
- b. Indications / Techniques
 - i. Indications for Evaluation and Complications AR
 - ii. Specific Sampling Techniques (e.g. Transthoracic, Transbronchial, EBUS, ENB)
 - iii. Microorganism Stains AR
 - iv. IHC and Flow Cytometry AR
 - v. Molecular Studies (e.g., FISH testing) AR
- c. Specimen Adequacy (e.g., Immediate Evaluation Techniques) AR
- d. Infections
 - i. Bacterial (e.g., abscess) and Mycobacterial AR
 - ii. Fungal (e.g., Histoplasma, Aspergillus, Mucor, Cryptococcus) AR
 - iii. Viral (e.g., CMV, Herpes) AR
 - iv. Parasitic F
- e. Benign Lung Diseases, Reactive/Reparative/Inflammatory
 - i. Granulomas (e.g., Sarcoid) AR
 - ii. Radiation and Chemotherapy Effects F
 - iii. Pneumoconiosis F
 - iv. Amyloidosis F
- f. Benign Neoplasms
 - i. Hamartoma AR
 - ii. Inflammatory Pseudotumor F
 - iii. Benign Mixed Tumor F
- g. Malignancies
 - i. Epithelial
 - 1. Adenocarcinoma AR
 - 2. Squamous Cell Carcinoma AR
 - 3. Small Cell Carcinoma AR
 - 4. Carcinoid Tumor AR
 - 5. Large Cell Neuroendocrine Carcinoma AR
 - 6. Mixed Carcinomas F
 - 7. Salivary Gland-Type Carcinomas (e.g., Adenoid Cystic, Mucoepidermoid) F
 - ii. Hematopoietic
 - 1. Non-Hodgkin Lymphoma AR
 - 2. Myeloid Neoplasms AR

3.	Plasma Cell Neoplasms	AR
4.	Langerhans Cell Histiocytosis	F
iii.	Metastatic	
1.	Carcinoma	AR
2.	Lymphoma	AR
3.	Melanoma	AR
4.	Sarcoma	F
iv.	Mesothelioma	AR
v.	Sarcomas	
1.	Epithelioid Hemangioendothelioma	F
2.	Angiosarcoma	F
3.	Synovial Sarcoma	F
h.	Reporting and Management Guidelines	F

13. Esophageal Cytopathology

a.	Indications / Techniques	
i.	Endoscopic Brushings	AR
ii.	Endoscopic FNA	AR
b.	Infections	
i.	Fungal (e.g., Candida)	AR
ii.	Viral (e.g., Herpes, CMV)	AR
c.	Primary Neoplasms	
i.	Squamous Cell Carcinoma	AR
ii.	Adenocarcinoma	AR
iii.	Smooth Muscle Tumors	AR
d.	Metaplastic and Preneoplastic Changes (e.g., Dysplasia, Barrett Esophagus)	F

14. Gastric Cytopathology

a.	Normal Cytology	AR
b.	Indications	AR
i.	Endoscopic -FNA	AR
ii.	Ancillary Testing (e.g., IHC, Molecular, Flow Cytometry)	AR
c.	Primary Neoplasms	
i.	Adenocarcinoma	AR
1.	Intestinal Type	AR
2.	Diffuse (e.g., Signet Ring, Linitis Plastica)	AR
ii.	Gastrointestinal Stromal Tumor	AR
iii.	Smooth Muscle Tumors	AR
iv.	Lymphoma	AR

15. Liver Cytopathology

- a. Normal Cytology C
- b. Indications / Techniques AR
 - i. Indications for Evaluation AR
 - ii. Sampling Techniques (e.g., FNA) AR
 - iii. Ancillary Testing (e.g., IHC, Molecular Studies, Stains) AR
- c. Infections AR
 - i. Abscess AR
 - ii. Fungal Infections AR
 - iii. Parasitic Infections (e.g., Amoeba and Echinococcus) AR
- d. Liver Neoplasms
 - i. Hepatic Adenoma F
 - ii. Hemangioma F
 - iii. Primary Liver Carcinomas
 - 1. Hepatocellular Carcinoma AR
 - 2. Cholangiocarcinoma AR
 - 3. Fibrolamellar Carcinoma F
 - iv. Hepatoblastoma F
 - v. Angiosarcoma F
- e. Hematopoietic Neoplasms and Lymphoma AR
- f. Metastatic Neoplasms AR
 - vi. Carcinoma AR
 - vii. Melanoma AR
 - viii. Sarcoma AR
- g. Reactive and Non-Neoplastic Disorders F

16. Biliary Cytopathology

- a. Normal Cytology C
- b. Infections (e.g., Bacterial, Fungal) AR
- c. Indications / Techniques F
 - i. Indications for Evaluation F
 - ii. Ancillary Testing (e.g., IHC, Molecular Studies, FISH) F
- d. Reactive Changes F
- e. Malignancy
 - i. Adenocarcinoma AR

17. Pancreatic Cytopathology

- a. Normal Cytology C
- b. Indications / Techniques AR
 - i. Indications for Evaluation AR
 - ii. Sampling Techniques AR
 - iii. Cyst Fluid Chemical Analysis AR

iv.	Ancillary Testing (e.g., Stains, IHC, Molecular Studies)	AR
c.	Specimen Adequacy	F
d.	Reactive and Non-Neoplastic Cysts	
i.	Pseudocyst	AR
ii.	Acute Pancreatitis	F
iii.	Chronic Pancreatitis, including Autoimmune	F
iv.	Lymphoepithelial Cyst	F
v.	Splenule / Accessory Spleen	F
e.	Benign / Borderline Neoplasms	
i.	Pancreatic Neuroendocrine Tumors (PanNet), Well and Poorly Differentiated	AR
ii.	Solid Pseudopapillary Neoplasms	AR
iii.	Mucin-Producing Neoplasms	
1.	Mucinous Cystic Neoplasm (MCN)	AR
2.	Intraductal Papillary Mucinous Neoplasm (IPMN)	AR
iv.	Serous Cystadenoma	F
f.	Malignant Neoplasms	
i.	Pancreatic Ductal Adenocarcinoma	AR
ii.	Acinar Cell Carcinoma	AR
g.	Hematopoietic Neoplasms and Lymphoma	AR
h.	Metastatic Neoplasms	AR
i.	Reporting and Management Guidelines	F

18. Salivary Gland FNA

a.	Normal Cytology	C
b.	Indications / Techniques	AR
i.	Indications for Evaluation	AR
ii.	Specific FNA Techniques	AR
iii.	Ancillary Testing (e.g., Stains, IHC, Flow Cytometry, Molecular)	AR
c.	Specimen Adequacy	F
d.	Reactive and/or Inflammatory Diseases	
i.	Acute and Chronic Sialadenitis, Sialolithiasis	AR
ii.	Granulomatous	AR
iii.	Sialadenosis	F
e.	Non-Neoplastic Tumor-Like Conditions	
i.	Intraparotid Lymph Node	AR
ii.	Lymphoepithelial Cyst	F
f.	Primary Epithelial/Myoepithelial Tumors XXX	
i.	Adenoid Cystic Carcinoma	AR
ii.	Mucoepidermoid Carcinoma	AR
iii.	Onchocytoma / Onchocytosis	AR
iv.	Pleomorphic Adenoma	AR
v.	Squamous Cell Carcinoma	AR

vi.	Warthin Tumor	AR
vii.	Acinic Cell Carcinoma	F
viii.	Basal Cell Adenoma/ Basal Cell Adenocarcinoma	F
ix.	Epithelial Myoepithelial Carcinoma	F
x.	Myoepithelioma/ Myoepithelial Carcinoma	F
xi.	Carcinoma Ex Pleomorphic Adenoma	F
xii.	Salivary Duct Carcinoma	F
xiii.	Secretory Carcinoma	F
g.	Hematopoietic Diseases and Lymphoma	AR
h.	Metastatic Neoplasms (e.g., Carcinoma, Melanoma)	AR
i.	Reporting Guidelines	AR
j.	Mesenchymal Tumors (e.g., Angiosarcoma, Nerve Sheath Tumors)	F
k.	Management	F

19. Thyroid & Parathyroid FNA

a.	Specimen Adequacy	C
b.	Normal Cytology and Needle Contaminants	
i.	Benign Thyroid	C
ii.	Benign Parathyroid	F
c.	Indications / Techniques	
i.	Indications for Evaluation, including Imaging Findings	AR
ii.	Ancillary Studies (e.g., IHC, Stains, Flow Cytometry, Molecular)	AR
iii.	Developmental Anomaly (e.g., Thyroglossal Duct Cyst)	AR
d.	Reactive and Non-Neoplastic	
i.	Follicular Nodular Disease	AR
ii.	Chronic Lymphocytic Thyroiditis/Hashimoto Thyroiditis	AR
iii.	Amyloidoma	F
iv.	Black/Pigmented Thyroid	F
v.	Parathyroid Lesions	F
vi.	Riedel Thyroiditis	F
vii.	Subacute Granulomatous Thyroiditis (de Quervain)	F
e.	Primary Epithelial Tumors	
i.	Anaplastic / Undifferentiated Carcinoma	AR
ii.	Follicular Neoplasm	AR
iii.	Oncocytic Neoplasm	AR
iv.	Medullary Carcinoma	AR
v.	Papillary Thyroid Carcinoma and Variants	AR
vi.	Hyalinizing Trabecular Tumor	F
vii.	Parathyroid Neoplasm	F
viii.	Poorly Differentiated Thyroid Carcinoma	F
f.	Hematopoietic and Lymphoma	AR
g.	Metastatic Neoplasms	
i.	Carcinomas	AR

- ii. Melanoma F
- h. The Bethesda System Reporting and Management Guidelines AR

20. Lymph Node FNA

- a. Normal Cytology C
- b. Indications / Techniques
 - i. Indications for Evaluation AR
 - ii. Ancillary Studies (Stains, IHC, Flow Cytometry, Molecular) AR
- c. Infections, Reactive Changes, Inflammatory
 - i. Bacterial and Mycobacterial AR
 - ii. Fungal AR
 - iii. Granulomatous AR
- d. Hodgkin Lymphoma AR
- e. Non-Hodgkin Lymphoma AR
 - i. Burkitt Lymphoma AR
 - ii. Follicular Lymphoma AR
 - iii. Large Cell (i.e., Diffuse Large B-Cell) AR
 - iv. Lymphoplasmacytic AR
 - v. Marginal Zone Lymphoma AR
 - vi. Mantle Cell Lymphoma AR
 - vii. Precursor Lymphoid (i.e., Lymphoblastic), Both T- and B-Cell AR
 - viii. Small Lymphocytic/Chronic Lymphocytic AR
 - ix. T-Cell and NK Cell AR
- f. Metastatic Neoplasms
 - i. Carcinomas AR
 - ii. Melanoma AR
 - iii. Sarcomas F
- g. Histiocytic and Dendritic Cells (e.g., Rosai-Dorfman Disease) F
- h. Myeloid Neoplasms (e.g., Myeloid Sarcoma) F
- i. Vascular Neoplasms (e.g., Kaposi Sarcoma) F

21. Head & Neck, Intraoral (Also See Other Categories)

- a. Normal Cytology C
- b. Indications / Techniques AR
 - i. Indications for Evaluation AR
 - ii. Ancillary Testing (e.g., Stains, IHC, Flow Cytometry, Molecular) AR
- c. Infections
 - i. Bacterial AR
 - ii. Fungal AR
- d. Developmental Anomalies
 - i. Branchial Cleft Cyst AR
 - ii. Thyroglossal Duct Cyst AR

- iii. Ectopic Tissue (e.g., Thyroid, Parathyroid, Thymus) F
 - e. Epithelial Tumors
 - i. Squamous Cell Carcinoma and Variants AR
 - 1. HPV-Related AR
 - 2. Non-HPV Related AR
 - ii. Nasopharyngeal Carcinoma F
 - f. Mesenchymal Tumors (Also See Soft Tissue Section)
 - i. Granular Cell Tumor AR
 - ii. Nerve Sheath Tumor AR
 - iii. Ameloblastoma F
 - iv. Meningioma F
 - v. Paraganglioma F
 - g. Metastatic Neoplasms (e.g., Carcinomas, Melanoma) AR

22. Breast and Nipple

- a. Normal Cytology C
 - i. Pregnancy and Lactational Changes AR
- b. Indications and Sampling
 - ii. Ancillary Testing (e.g., IHC, ER/PR, Her2, Molecular) AR
 - iii. FNA Sampling F
 - iv. Nipple Fluids and Smears F
 - v. Sentinel Node Sampling F
- c. Inflammatory and Reactive Changes
 - i. Acute Mastitis and Abscesses AR
 - ii. Fat Necrosis AR
 - iii. Granulomatous Inflammation AR
 - iv. Gynecomastia F
 - v. Foreign Body Reaction (e.g., Silicone) F
- d. Fibroepithelial Lesions
 - i. Fibroadenomas AR
 - ii. Phyllodes Tumors F
- e. Adenocarcinomas
 - i. Ductal Carcinoma AR
 - ii. Lobular Carcinoma F
- f. Fibrocystic Changes, Cysts and Adenomas F
- g. Papillary Lesions F
- h. Mesenchymal Neoplasms F
- i. Metastatic Neoplasms F
- j. Hematopoietic Neoplasms F
- k. Reporting and Management Guidelines F

23. Mediastinum and Retroperitoneum

a. Normal Cytology	C
i. Ectopic Tissue (e.g., Thyroid, Thymus, Ganglion Cells)	AR
b. Indications / Techniques	AR
ii. Indications for Evaluation	AR
iii. Ancillary Studies (e.g., Stains, IHC, Flow Cytometry, Molecular)	AR
c. Infections	
iv. Bacterial and Mycobacterial	AR
v. Fungal	AR
d. Cysts, including Developmental Cysts	F
e. Thymic Neoplasms	F
i. Thymoma	F
ii. Thymic Carcinoma	F
f. Neural Tumors	F
i. Neuroblastoma and Ganglioneuroma	F
ii. Nerve Sheath Tumors (e.g., Schwannoma, Neurofibroma)	F
g. Paraganglioma	F
h. Germ Cell Tumors	
i. Seminomas	AR
ii. Teratomas	F
iii. Mixed and Other Germ Cell Tumors	F
i. Metastatic Tumors	
i. Carcinomas	AR
ii. Melanoma	AR
iii. Sarcomas	F

24. Kidneys

a. Normal Cytology	AR
b. Indications / Techniques	
i. Ancillary Studies (e.g., Stains, IHC, Flow Cytometry, Molecular)	AR
ii. Indications for Evaluation	F
c. Infections	
i. Bacterial (e.g., Renal Abscess, Malakoplakia)	AR
ii. Mycobacterial	AR
d. Non-Neoplastic Inflammatory Lesions (e.g., Xanthogranulomatous pyelonephritis)	F
e. Benign Neoplasms	
i. Oncocytoma	F
ii. Angiomyolipoma	F
f. Malignant Tumors of the Renal Parenchyma	
i. Clear Cell Renal Cell Carcinoma	AR
ii. Papillary Renal Cell Carcinoma	F
iii. Chromophobe Renal Cell Carcinoma	F

- iv. Medullary Carcinoma F
- g. Urothelial Carcinoma of the Renal Pelvis AR
- h. Metastatic Tumors (e.g., Carcinomas, Melanoma) AR
- i. Hematopoietic Neoplasms AR
- j. Malignant Pediatric Renal Tumors (e.g., Wilms Tumor [Nephroblastoma]) F

25. Adrenal Glands

- a. Normal Cytology C
- b. Myelolipoma AR
- c. Hematopoietic Neoplasms and Lymphoma AR
- d. Metastatic Tumors (e.g., Carcinomas, Melanoma) AR
- e. Indications / Techniques
 - i. Indications for Evaluation F
 - ii. Ancillary Testing (Stains, IHC, Flow Cytometry, Molecular) F
- f. Benign Adrenal Cortical Processes F
- g. Adrenal Cortical Carcinoma F
- h. Tumors of the Adrenal Medulla
 - i. Pheochromocytoma F
 - ii. Neuroblastoma F
 - iii. Ganglioneuroma F

26. Soft Tissue, Subcutaneous, and Skin

- a. Normal Cytology C
- b. Indications / Techniques
 - i. Ancillary Testing (e.g., Stains, IHC, Flow Cytometry, Molecular) AR
 - ii. Indications for Evaluation F
- c. Infections
 - i. Bacterial and Mycobacterial AR
 - ii. Fungal AR
- d. Reactive / Inflammatory (Non-Infectious)
 - i. Abscess AR
 - ii. Fat Necrosis AR
 - iii. Foreign-Body Reaction AR
 - iv. Epidermal Inclusion Cysts AR
 - v. Ganglion Cyst F
 - vi. Endometriosis F
 - vii. Neuroma F
 - viii. Myositis Ossificans F
 - ix. Amyloidoma F
 - x. Nodular Fasciitis F
 - xi. Tumoral Calcinosis F
 - xii. Extramedullary Hematopoiesis F

- e. Benign Neoplasms
 - i. Granular Cell Tumor AR
 - ii. Lipomas AR
 - iii. Pilomatixoma AR
 - iv. Schwannoma AR
 - v. Solitary Fibrous Tumor AR
 - vi. Intramuscular Myxoma F
 - vii. Giant Cell Tumor of Tendon Sheath F
 - viii. Neurofibroma F
 - ix. Ganglioneuroma F
 - x. Leiomyoma F
 - xi. Rhabdomyoma F
- f. Malignant and Atypical/Borderline Neoplasms
 - i. Melanoma AR
 - ii. Merkel Cell Carcinoma AR
 - iii. Liposarcomas
 - 1. Well-Differentiated / Atypical Lipomatous Tumors AR
 - 2. Myxoid Liposarcoma AR
 - 3. Round Cell Liposarcoma F
 - 4. Pleomorphic Liposarcoma F
 - iv. Rhabdomyosarcoma AR
 - v. Undifferentiated Sarcoma AR
 - vi. Synovial Sarcoma F
 - vii. Extraskeletal Myxoid Chondrosarcoma F
 - viii. Hematopoietic Neoplasms and Lymphoma AR
 - ix. Metastatic Carcinoma AR

27. Bone

- a. Normal Cytology C
- b. Indications / Techniques
 - i. Indications for Evaluation, including Imaging Findings F
 - ii. Ancillary Testing (e.g., Stains, IHC, Flow Cytometry, Molecular) F
- c. Benign Neoplasms
 - i. Giant Cell Tumor F
 - ii. Aneurysmal Bone Cyst F
- d. Malignant Neoplasms
 - i. Chordoma AR
 - ii. Chondrosarcoma F
 - iii. Ewings/PNET F
 - iv. Osteosarcoma F
- e. Hematopoietic Neoplasms
 - i. Non-Hodgkin Lymphoma AR
 - ii. Plasma Cell Neoplasm AR

- iii. Langerhans Cell Histiocytosis / Eosinophilic Granuloma F
- iv. Myeloid Neoplasms F
- f. Metastases AR

28. Cytopathology Laboratory Administration, Management, and Procedures

- a. Safety AR
 - i. FNA Performance-Related Safety Measures AR
- b. Specimen Collection and Processing
 - i. Specimen Requisition, Collection, and Acceptance AR
 - ii. Specimen Processing
 - 1. Fixation AR
 - 2. Slide Preparation AR
 - 3. FNA Indications and Techniques AR
 - 4. Immediate Evaluation Techniques AR
- c. Cytopathology Billing and Coding AR
- d. Cytopathology QC/QA, CLIA, Regulatory
 - i. Cytologic-Histologic Correlation and Discrepancies AR
 - ii. Record and Slide Retention AR
 - iii. Proficiency Testing AR
 - iv. Five-Year Retrospective Review (i.e. Look Back) AR
 - v. Rescreening, Prospective and Retrospective F
 - vi. Workload Limits F
 - vii. Reporting Rates F
 - viii. Quality Statistics F
- e. Test Development and Validation AR
- f. Instrumentation, Computers, Capital Equipment
 - i. Acquisition F
 - ii. Automated Processing (Also See Screening) F
 - iii. Processing Methods (Also See Screening) F
- g. Technical Aspects and Test Utilization
 - i. Routine and Histo/Cytochemistry F
 - ii. Immunohistochemistry F
 - iii. Molecular Testing F
 - iv. Flow Cytometry F
- h. Screening and Review Methods
 - i. Automated Screening F
 - ii. Digital Cytology/Pathology F
 - iii. Telecytology F
- i. Cytopathology Laboratory Accreditation F
- j. Cytopathology Personnel Qualifications and Management F
- k. Risk Management / Medical-Legal Issues F