



Pathology Consultation

MATERIALS SUBMISSION PROTOCOL BOOKLET



mlabs.umich.edu
800.862.7284



WE LOVE A CHALLENGE

At Michigan Medicine Laboratories (MLabs), we encourage our clients to challenge us with their most difficult, perplexing cases. A passion for discovery and breakthrough science has been a hallmark of the University of Michigan Department of Pathology for more than a century. Partnering with MLabs means tapping into that passion to answer your toughest questions. MLabs is your doorway to our faculty and department laboratories. Our expert pathology faculty is supported by a 300+ antibody menu of immunohistochemistry, ISH and ancillary stains as well as cutting edge molecular diagnostics to provide you with complete diagnostic information. Challenge us. We will guide you to the right test and deliver comprehensive, actionable results, emphasizing collaboration and personal service every step of the way.

RELATIONSHIPS BUILD TRUST

Meet our pathologists and review best practices for specimen submission. We are available remotely or in person for your staff and pathologists, whether first time or a refresh due to staff changes at your facility. Our goal is to provide expert consultations in an efficient and timely manner to all our colleagues and their patients.

Contact MLabs at **800.862.7284** to request slide and block kits.

GETTING STARTED

PP. 6-7



GETTING STARTED

- Complete requisition.
- Package documents and materials.
- Include formalin fixed paraffin embedded (FFPE) block(s) for expedited final report.

SUBMISSION PREPARATION

PP. 12-21



REQUIREMENTS

PP. 8-11

- Review specialty specific requirements.
- Gather required documents and materials.

COURIER / SHIPPING PREP

PP. 22-23



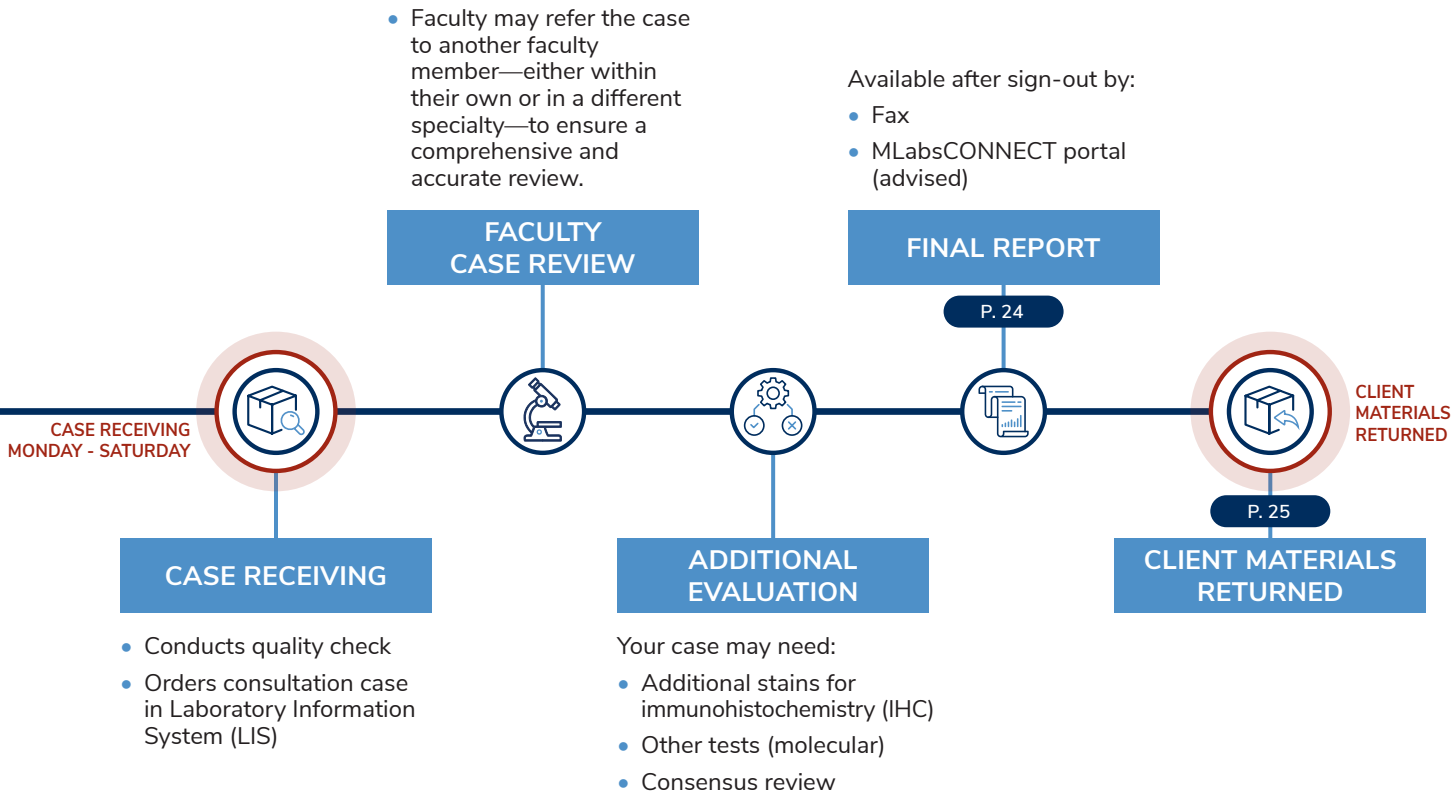
- Retain tracking number for your records.
- Place kit in shipping bag and affix label.
- Confirm scheduled pick up time from courier/shipper.

COURIER / SHIPPING



COURIER / SHIPPING

- MLabs receives shipments Monday through Saturday.
- Shipment/courier cut-off times vary by location. Allow ample time to prepare to reduce follow-up requests and delays due to missing information and materials.



ORDER SLIDE AND BLOCK KITS AND CONTENTS

CALL

800.862.7284

EMAIL

MLabsSupport@umich.edu

Subject Line:

Slide and Block Kits

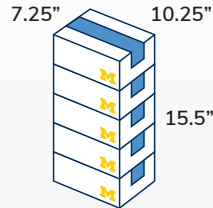
Include quantity of kits and client code in your email message (available in batches of 5)

SUPPLY ORDER FORM

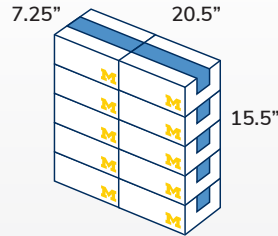


KIT DIMENSIONS:

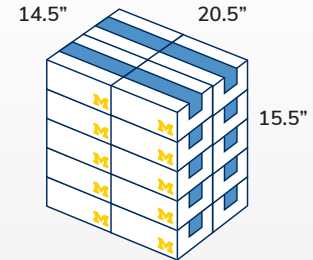
5 KITS:



10 KITS:



20 KITS:



ALL KIT CONTENTS, AS WELL AS THE FOLLOWING PRINTED RESOURCES, MAY BE ORDERED SEPARATELY:



Pathology Consultation
Materials Submission
Protocol Booklet



Specialty Specific
Requirements
Reference Sheet



Pathology Consultation
Materials Submission
Protocol Quick Guide



Anatomic Locations
Reference Sheet

KIT CONTENTS

Slide and Block Kit

- Requisition form (fold in half)
- 5-slide holders (2)
- 4-block holder
- Room temperature specimen bag
- Foil pack
- Cold pack (packaged separately from the kit boxes for convenient freezing)
- UPS/FedEx/Courier shipping bag
- UPS/FedEx shipping label
- Consult materials label (ordered separately)



BEST PRACTICE

Whenever possible, use a kit box. If unavailable, follow these recommendations:

- Use a box to protect breakable assets.
- Use cold packs to keep blocks from melting in transit.
- Submit one patient per package.






REVIEW REQUIREMENTS AND OBTAIN ADDITIONAL NECESSARY MATERIALS AND INFORMATION

SPECIALTY SPECIFIC REQUIREMENTS

Bone and Soft Tissue



- FFPE block required** 
- Pathology reports and clinical history:
 - Radiation therapy, chemotherapy, surgery
 - Malignancies (including sarcomas, melanomas and carcinoma)
 - Clinical syndromes (such as NF1)
- Radiology reports and images
- Laboratory test results (molecular assays performed or in process)

Breast



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history
- Radiology reports and images (mammography, ultrasound)

Cardiac/Cardiovascular



- FFPE block advised or 6 unstained slides
- Pathology reports and clinical history:
 - Medications
 - Source of biopsy specimen: native heart or transplanted heart
 - Heart transplant date and reason
 - Echocardiogram (ECHO) results
 - Catheterization results and reason for procedure (e.g., routine or due to change in symptoms/urgent)
 - Biopsy reports
 - HLA DSA suspected antibody mediated rejection
- Laboratory test results (HLA, tacrolimus)

Cytology/Cytopathology



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history:
 - Procedure notes (endoscopy, bronchoscopy)
 - Malignancy type and if relevant to submitted sample
 - Social history (tobacco use, asbestos exposure)
- Laboratory test results: CA19-9, CA-125, pancreas cyst fluid (CEA, amylase, glucose, molecular)
- Radiology reports and images (ultrasound, CT, MRI, PET)

Dermatopathology (General, Inflammatory)



- FFPE block advised or 10 unstained slides

- Pathology reports and clinical history (biopsy, related lesion, or re-excision)
- Clinical photos (lesions)

Dermatopathology for Melanocytic Lesions, Cutaneous Lymphoma, Mycosis Fungoides or rule/out CL or MF



□ FFPE block required

- Pathology reports and clinical history (biopsy, related lesion, or re-excision)
- Clinical photos (lesions)

Endocrine



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history

Forensic



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history (clinical summary with clinical question)
- Clinical photos (autopsy or gross)

GI and Hepatobiliary: Gastrointestinal, Liver Tumors, and Pancreaticobiliary Tissues (Esophagus, Stomach, Small and Large Intestine, Rectum, or Pancreatic/Bile Duct Disease)



- FFPE block advised or 10 unstained slides
- Name and contact information for the provider (e.g., hepatologist or gastroenterologist) treating the patient
- Pathology reports and clinical history
- Laboratory test results: autoimmune serologies, tumor marker (CEA, CA19-9), and liver function tests
- Endoscopy reports and images
- Radiology reports and images (ultrasound, CT, MRI, MRA, PET)

GI and Hepatobiliary: Medical Disease of the Liver



- FFPE block advised or 6 unstained slides
- 2 H&E-stained slide levels

- All stains already performed (e.g., PAS with and without diastase, iron, trichrome, reticulin)
- Name and contact information for the provider (e.g. gastroenterologist or hepatologist) treating the patient
- Pathology reports and clinical history (recent clinic note related to liver evaluation)
- Laboratory test results (liver function tests, autoimmune serologies, and hepatitis workup)

GU (Genitourinary Pathology, including Renal [Kidney] Tumors)




□ FFPE block required

- Pathology reports and clinical history (surgical and/or cytopathology)
- Laboratory test results (serum PSA, serum tumor markers i.e. AFP, BHCG, etc.)
- Endoscopy and cystoscopy reports and images

Gynecologic Pathology (GYN)



- FFPE block required** 
- Pathology reports and clinical history:
 - Clinic notes
 - Hormonal medications
- Laboratory test results (molecular assays already performed or in process)
- Radiology reports and images
- Clinical photos (pelvic)


Head and Neck



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history
- Radiology reports and images (ultrasound, CT, MRI, MRA, PET)


Hematopathology (Bone Marrow, Lymph Nodes, Spleen)



- FFPE block required for known/suspected lymphoma or 20 unstained slides** 
- Pathology reports and clinical history
- Laboratory test results:
 - Recent CBC with differential for bone marrow specimens
 - Flow cytometry, molecular diagnostic and cytogenetic reports already performed or in process

Neuropathology Dementia Consultation




 MLabs does not accept Neuropathology specimens that pose risk of Creutzfeldt-Jakob Disease (CJD) or other transmissible spongiform encephalopathy.

MLabs provides Forensic Consultation services to contracted clients. Other requests need MLabs Pathologist approval. For consultations, contact MLabs Customer Service at 800.862.7284.


Neuropathology Epidermal Nerve Fiber Density (Small Fiber Neuropathy)



 MLabs does not accept Neuropathology Epidermal Nerve Fiber Density consultation cases.

Neuropathology (Tumor or Rule Out Tumor)



- FFPE block required** 
- All touch and squash preparation cytology slides
- Pathology reports and clinical history:
 - History and physical (H&P)
 - Radiation or chemotherapy
- Laboratory test results (molecular assays performed or in process)
- Radiology reports and images (pre-treatment CT and/or MRI of brain/skull/spinal cord)

Ophthalmologic Pathology



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history

Pediatric/Perinatal Pathology



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history
- Radiology reports and images (pediatric tumors - ultrasound, CT, MRI, MRA, PET)

Pulmonary/Thoracic



- FFPE block advised if IHC or special stains have been performed
- Pathology reports and clinical history (recent clinical note)
- Radiology reports and images (chest imaging reports)

Renal (Medical Disease of the Kidney)




MLabs recommends the referral of renal biopsy for medical disease of the kidney specimens as primary diagnosis – using our Renal Biopsy Kit. Renal biopsy specimen kits can be obtained in advance of the procedure by contacting MLabs Client Services.

- If referring slides, include:
 - H&E stained slides, 2 microns – first cut slides x 2 levels per slide
 - Trichrome, cut at 2 microns, x 2 levels per slide
 - PAS–without diastase digestion, cut at 2 microns, 2 levels per slide
 - Silver stain, cut at 2 microns, 2 levels per slide
 - H&E stained slides, 2 microns – last cut slides x 2 levels per slide
 - 1 unstained slide cut at 8 – 10 microns for Congo Red staining for detection of amyloid, if needed
- Name and contact information for referring nephrologist
- Pathology reports and clinical history
- Laboratory test results
- Electron micrograph images

Renal [Kidney] Tumors (Assigned as GU Cases)



- FFPE block required** 
- Pathology reports and clinical history (surgical and/or cytopathology)

- Laboratory test results (serum PSA, serum tumor markers i.e. AFP, BHCG, etc.)
- Endoscopy and cystoscopy reports and images

Transplant for Rejection (ANY Organ: Heart, Lung, Kidney, other)



- Pathology reports and clinical history:
 - Medications
 - Current immunosuppression
 - Transplant biopsy reports
- Laboratory test results (HLA, tacrolimus)

For further assistance in determining the correct specialty, please refer to **Anatomic Locations** (pp. 28-30).

STEP 3 | SECTION C

Mark the checkboxes in Section C of the requisition to indicate the included documentation, and submit it with your case.

- Cover Letter (optional):** Pathology question and clinical history summarization
- Pathology Reports:** Preliminary or final, with accession number, gross description including tissue submission list (block IDs), and working or final diagnosis (if available)
- Clinical Notes:** Recent H&P, admission or discharge summary, surgery or procedure notes, OB history, and treatment summary (e.g., medication, radiation treatment, and chemotherapy)
- Additional Case Information:** Laboratory test results, endoscopy and cystoscopy reports, if applicable

- **Radiology Reports and Images:** X-rays, ultrasound, CT, MRI, MRA, PET scan, mammography, etc., if applicable
- **Clinical Photos** (if applicable)
- **Insurance/Demographic Facesheet:** Information needed to confirm patient identity and required for all billing options



BEST PRACTICE



Make copies of all reports, summaries, and information for your records.



Do not staple paperwork.



KINDLY PUT THE DOCUMENTS IN THIS ORDER:

1. Requisition (top)
2. Cover Letter
3. Pathology Reports
4. Clinical Notes
5. Additional Case Info
6. Radiology Reports/Images
7. Clinical Photos
8. Insurance/Demographic Facesheet (bottom)

STEP 4 | MATERIALS TO SEND

Blocks (Required)

Gather and label all FFPE blocks:

- Accession number/case identifier
- Part of case
- Block number
- Include specialty tissue specific blocks. See Specialty Specific Requirements (pp. 8-11)



Accession Number/
Case Identifier

Part of Case/Block
Number

- A = Part of Case
- 1 = Block Number



BEST PRACTICE



If your pathologist performed a special stain or IHC, include the FFPE block for quicker processing as additional stains must be completed in our laboratories.



- Computer generated cassette labels advised
- If handwritten, xylene and chemical resistant ink required

✗ *Handwriting is hard to read and can smear*



STEP 5 | MATERIALS TO SEND

Slides (Required)

Gather all original H&E slides (at least one per block) and label each individual slide (not the slide case):

- Accession number/case identifier
- Part of case
- Slide number
- Type of stain

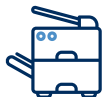
Part of Case/Slide Number

- D1 = Part of Case
- 1 = Slide Number



Accession Number/
Case Identifier

Type of Stain



Make two copies of the slides and/or blocks: one for your records and one to send with the kit materials.



An additional 30 minutes in the drying oven reduces slides sticking and breaking in the mailer.



CHECK THAT YOU HAVE GATHERED ALL THE REQUIRED MATERIALS

Additional Materials

Consultations may require the addition of immunohistochemistry (IHC) or other stains and/or molecular testing to render a diagnosis, classify or grade a tumor, or guide treatment.

Sending an FFPE block with the original materials reduces the need for additional requests. If an FFPE block or necessary clinical history is not received, or if a different FFPE block is required, MLabs administrative staff may contact you to request the needed materials.



STEP 7

Packaging

Follow instructions to properly assemble your materials into the slide and block kit.



Place up to 4 FFPE blocks into the empty spaces of the block holder.

Contact MLabs Client Services at **800.862.7284** if additional slide or block holders are needed.



+



▶



Insert the block holder and frozen cold pack into the foil pack and seal. The cold pack helps reduce the chance of the paraffin block specimens melting.



Secure slides in slide holders. Place the slide holders into the room temperature specimen bag.



BEST PRACTICE

USE CELLOPHANE TAPE?

Slide Holder **YES** Secures slides, reduces damage

Outer Kit Box **NO** Box reuse, reduces box damage



Place submission contents in the box in the following order:

- Foil pack containing blocks (bottom)
- Specimen bag containing slides
- All paperwork (top)

STEP 8

Courier/Shipping

The slide and block kit is customized with every client's preferred method of transportation.

- Insert closed kit box inside shipping/courier bag and seal.
- Place the provided shipping label on the front of the shipping bag where indicated (FedEx/UPS only).
- Apply the consult materials label on the bag and fold it over so that it can be seen from both sides.



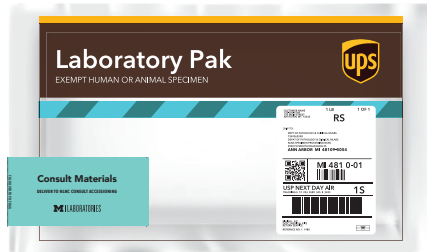
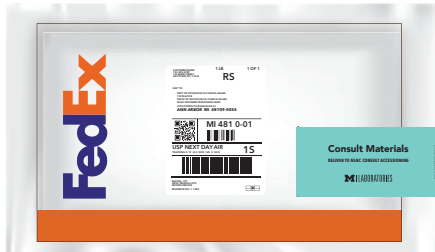
**FEDEX PRIORITY
OVERNIGHT**
Monday – Saturday
Arrival by 10:30 AM
800.463.3339



UPS NEXT DAY AIR
Monday – Saturday
Arrival by 12:00 PM (noon)
800.742.5877



LOCAL COURIER
Refer to your
courier schedule



Send specimens by express mail or courier service to:

Michigan Medicine Laboratories (MLabs)
 N-LNC Room G451 Bldg 35
 2800 Plymouth Road
 Ann Arbor, MI 48109-2800

PLEASE BE ADVISED: The client is responsible for following all applicable U.S. Department of Transportation (DOT), International Air Transport Association (IATA), and International Civil Aviation Administration (ICAO) shipping guidelines for safety and compliance.



BEST PRACTICE



Make and keep copies of the tracking information for reference.



Materials received outside of these shipping windows may result in exposure to temperatures that can melt paraffin block specimens. Melted blocks require re-embedding which may impact turnaround time.

MLABS RECEIVES SHIPMENTS:

Monday – Friday

6:30 AM-6:00 PM

Saturday

6:30 AM-
12:00 PM (noon)



HOLIDAY HOURS

If your shipper cannot deliver during these timeframes, please contact MLabs Client Services (800.862.7284) to make arrangements for receiving your materials.

RECEIVING A FINAL REPORT

A final report will be sent via the delivery method selected during account setup. By default, all accounts are configured to receive reports via fax. For those who prefer real-time electronic reports, MLabsCONNECT is available and can be integrated with Electronic Medical Records (EMR) systems.

MLabsCONNECT



Use the QR code to learn more about MLabsCONNECT or reach out to MLabs Client Services for more information at **800.862.7284**.

MLabsCONNECT BENEFITS:



MLabsCONNECT Offers
24/7/365 Access



Confidential, Safe and
Secure / HIPAA Compliant



Print Batch Reports /
On-Demand Printing



Web-based Application –
Access Anytime, Anywhere



Manage and Build
Complex Reports



Free Access to All our Clients
(EMR vendor cost are not
included)

COMMITMENT TO MATERIAL SECURITY AND TIMELY RETURN

At MLabs, we are dedicated to safeguarding all materials entrusted to us for patient care. Every specimen is carefully managed and tracked using advanced RFID technology, ensuring security and traceability throughout its journey in our department until return.

Material Return Process:

- Submitted materials are returned to the address listed on the test requisition within 30 days after our pathologists complete their assessment.
- All return shipments are sent via UPS with weekday delivery.
- Cases including paraffin blocks are shipped Monday–Thursday with cold packs to prevent melting.
- For international returns, please allow additional time due to customs regulations.

If you need materials sent to a different address or require expedited return for clinical reasons (such as tumor boards or additional testing), please contact MLabs Client Services at **800.862.7284**.

BILLING

Please read through the following information regarding billing for consultations. This includes pertinent information regarding how we bill, including Medicare law.

1. MLabs will bill the client or referring institution directly, or MLabs will bill the patient's insurance carrier directly for tests performed by MLabs provided we are able to do so successfully. Please indicate Client/Referring Institution or Patient/Insurance in the Bill To section of the test requisition form. If the patient has Traditional Medicare, please indicate the patient's status (inpatient, outpatient, or nonpatient) on the date of service (DOS). Patients will be billed for any copays or deductibles applied by the plan. Please advise your patients that they may receive a bill for laboratory services from Michigan Medicine. MLabs reserves the right to bill the client if our claim is denied by the patient's insurance carrier.
2. Client billing fee schedules may include discounted pricing from the global (professional and technical) fee schedules of the institution. Client billing pricing with or without a Master Services Agreement cannot be offered as professional courtesy to other physicians, to client owners or client owner immediate family members. Test orders placed in which the practice owner or immediate family member is receiving the laboratory service must be billed to third party payors or charged at the global non-discounted rate.
3. Please note that any additional stains required for second opinion consultations must be performed in our laboratory. MLabs faculty are most familiar with in-house validated assays and best equipped to interpret stains within our laboratories. From a billing perspective, for consultation cases, the professional component for additional stains performed on consultation cases can only be billed by medical personnel in the same laboratory that performed the technical component.
4. Under Medicare (CMS) law, MLabs cannot bill Medicare for technical charges if the order date is less than 14 days after the patient was classified as a hospital inpatient or outpatient or was an inpatient in a skilled nursing facility (SNF) in a Medicare paid bed, except for molecular pathology testing (CPT code range 81105 - 81479) collected from a hospital outpatient.

5. If the specimen was obtained in a private physician office and there was no hospital visit on the date of collection (patient is classified as a nonpatient, i.e., was not a hospital inpatient or outpatient), MLabs can bill Medicare directly for both technical and professional services (unless the patient was also in a SNF Medicare paid bed on the date of collection).
6. Consultations are billed as routine (CPT 88321) or comprehensive (CPT 88325) at the determination and discretion of the signing pathologist and according to CPT coding guidelines. In general, the comprehensive code will be used when the consultation involves a more in-depth review of the patient's records and additional material, where the pathologist considers elements of the patient records beyond the outside pathology reports and associated slides to make a diagnosis, and where a significantly greater amount of time than usual is needed to review the case. The comprehensive code is not used simply because the pathologist has read the clinical notes. CPT 88323 is used when only blocks are referred without H&E (this code is not billed for recuts or other ancillary stains that are billed with the relevant CPT codes). The AMA CPT code descriptions for these services are as follows:
 - a. CPT 88321: Consultation and report on referred slides prepared elsewhere.
 - b. CPT 88323: Consultation and report on referred material requiring preparation of slides.
 - c. CPT 88325: Consultation, comprehensive, with review of records and specimens, with report on referred material.

ANATOMIC LOCATIONS

BONE AND SOFT TISSUE

- Bone, any location
- Lipoma or lipomatous lesion
- Mass, abdominal
- Mass, peritoneal (excluding GYN or GI)
- Mass, retroperitoneum
- Mass, extremity (e.g., arm, hand, foot, leg, thigh)
- Sarcoma (including any tissues labeled or identified as sarcoma)
- Skeletal muscle (tumor or sarcoma)
- Soft tissue, any location
- Spine (excluding myeloma)
- Spindle cell neoplasm
- Subcutaneous mass, any location
- Vertebrae (excluding myeloma)

BREAST

- Breast, calcifications
- Breast (mass and/or other; excluding skin)
- Breast, skin (inflammatory carcinoma)
- Nipple
- Phyllodes (or rule out)

CARDIAC/CARDIOVASCULAR

- Aorta
- Atrium (right, left)
- Atrial mass
- Heart
- Heart biopsy
- Valve (e.g., aortic, bicuspid, semilunar, tricuspid)
- Vessel (e.g., aorta, artery, vein)
- Ventricle (right, left)

CYTOLOGY/CYTOPATHOLOGY

If cytopathology materials are received with a surgical pathology case, they may be included and handled as part of that surgical pathology case.

CYTOPATHOLOGY (CYTO MATERIALS ONLY)

- Brushings, FNA (e.g., bronchial brushing, bile duct brushing)
- Cell block
- Cytology slides only, any site (for specimens when only cytology slides are submitted)
- Fine needle aspirate (i.e., FNA)
- Fluids—cytology slides only (e.g., pericardial, peritoneal, pleural)

- Pap smear (ThinPrep®, SurePath®, smear)
- Smears, any site
- Washings, any site (e.g., bronchial washing)

DERMATOPATHOLOGY

- Adnexal lesion
- Basal cell carcinoma
- Melanoma
- Merkel cell carcinoma
- Mycosis fungoides
- Nail (e.g., finger, toe)
- Scalp (skin)
- Skin, any location (e.g., inflammatory dermatosis)
- Skin, any location (e.g., blister, bulla; with or without DIF)
- Skin, any location (e.g., carcinoma, mass, melanoma, tumor)
- Skin, any location (rule out lymphoma)

ENDOCRINE

- Adrenal gland
- Adrenal adenoma or carcinoma
- Parathyroid
- Thyroid
- Pancreas (refer to GASTROINTESTINAL (GI)/HEPATOBIILIARY/PANCREAS section, see p. 29)
- Pituitary (refer to NEUROPATHOLOGY section, see p. 30)

FORENSIC

- Forensic (complete autopsy)
- Forensic (brain only)

GI (GASTROINTESTINAL/HEPATOBIILIARY/PANCREAS)

- Ampulla of Vater
- Anus (excluding GYN)
- Appendix
- Bile duct
- Colon, any site (e.g., ascending, cecum, left, hepatic flexure, right, sigmoid, transverse)
- Esophagus
- Gallbladder
- Liver (medical or tumor)
- Omentum (excluding sarcoma or GYN)

- Pancreas
- Rectum
- Small intestine, any site (e.g., duodenum, ileum, jejunum, NOS)
- Stomach, any site (e.g., antrum, body, cardia, fundus, mass, pylorus)

GU (GENITOURINARY/RENAL TUMORS)

- Bladder
- Epididymis
- Kidney (tumor or mass)
- Penis
- Prostate
- Renal (tumor or mass)
- Renal cell carcinoma
- Seminal vesicle
- Testis (testicular mass)
- Ureter
- Urethra (excluding GYN)
- Urinary
- Vas deferens

GYNECOLOGIC PATHOLOGY (GYN)

- Anus (if related to GYN lesion)
- Bartholin gland
- Cervix
- Endometrial/endometrium

- Fallopian tube
- Mole, partial mole, gestational trophoblastic disease (GTD)
- Myometrium/myoma
- Omentum (with ovary)
- Ovary
- Peritoneum
- Products of conception (POC) for gestational trophoblast or implantation site lesion
- Urethra (if related to GYN lesion)
- Uterus
- Vagina
- Vulva

HEAD AND NECK

- Epiglottis
- Larynx
- Mandible
- Oropharynx
- Parotid gland
- Pharynx
- Salivary gland (major/minor)
- Septum
- Sinus (ENT/head & neck), any location
- Tongue
- Vocal cords

ANATOMIC LOCATIONS CONTINUED

HEMATOPATHOLOGY

- Blood, peripheral smear
- Bone marrow aspirate
- Bone marrow biopsy
- Leukemia (all tissue excluding skin)
- Lymph node (excluding metastasis of solid tumor)
- Lymphoma (all tissue excluding skin)
- Myeloma
- Spleen

NEUROPATHOLOGY

- Brain, any location (e.g., amygdala/hippocampus, cerebellum, corpus callosum, midbrain, NOS, pons, thalamus)
- Brain, any lobe (e.g., frontal, occipital, parietal, temporal)
- Choroid plexus
- Dura Mater/intradural
- Meninges
- Nerve, peripheral
- Pituitary (excluding endocrine)
- Skeletal muscle (evaluate for medical disease/weakness)
- Spinal cord
- Ventricle (e.g., aqueduct, fourth, lateral, third)

OPHTHALMOLOGIC PATHOLOGY

- Conjunctiva
- Eye, any location
- Globe
- Pterygium
- Retina (with or without a mass/tumor)

PEDIATRIC/PERINATAL PATHOLOGY

- All patients 18 years or younger (any tissues, excluding leukemia/lymphoma, brain tumors, skin)
- Fetus (requires sending placenta)
- Pediatric tumors (e.g., neuroblastoma, Wilm's tumor, sarcomas)
- Placenta (15 – 40+ weeks)
- Placenta with fetopsy
- POC >11 weeks to evaluate fetal loss

PULMONARY/THORACIC

- Bronchial or bronchus
- EBUS (except when only cytology is performed)
- Lobe (e.g., LLL, LUL, RLL, RML, RUL)
- Lingula
- Lymph node (e.g., hilar, mediastinal, intrapulmonary; excluding lymphoma)
- Lung

- Mediastinum
- Mesothelioma (excluding GYN)
- Pleura
- Thymoma or thymus
- Trachea

RENAL (MEDICAL DISEASE OF KIDNEY)

- Kidney (amyloid, autoimmune, diabetes, glomerulonephritis, MCD; with electron microscopy)

NOTES

19

SUBSPECIALTIES

22k+

REFERRALS
ANNUALLY

24-48

HOUR
TURNAROUND

70+

EXPERT
CONSULTANTS



MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

LABORATORIES

Expertise Delivered
Personally

BRO6v20260122