

This guide supports health professionals and partners in accessing and using the anatomical pathology laboratory services at Providence Health Care







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#### Introduction

#### Purpose

This manual provides comprehensive guidelines for the submission, handling, and processing of surgical and cytology specimens at Providence Health Care (PHC). It ensures compliance with regulatory standards and supports quality patient care.

#### Scope

This manual applies to all PHC hospital personnel, clinicians, and laboratory staff involved in specimen management. It focuses on maintaining specimen integrity, ensuring accurate diagnostics, and upholding patient confidentiality.

#### Definitions

- Anatomic Pathology (AP): A medical specialty that diagnoses diseases based on the examination of tissues and cells.
- **Cytology:** The study of cells, their structure, function, and chemistry, often used in diagnosing diseases such as cancer.
- Specimen Integrity: The preservation of a specimen's original state to ensure accurate diagnosis.
- **CST Cerner:** Clinical and Systems Transformation Cerner, the electronic health information system used at PHC.
- **DAP-** Accreditation standards



#### **Contact Information**

#### **Locations and Hours of Operation**

- PHC Anatomic Pathology/ Cytology Laboratory:
  - o Location: Providence Building, 2nd Floor- Laboratory
  - o Hours: Monday to Friday, 6:00 AM 5:00 PM
- Renal Pathology Laboratory:
  - o Location: Burrard Building, 2nd Floor Room 297
  - o Hours: Monday to Friday, 6:00 AM 5:00 PM

#### **Key Contact Numbers**

- Histology: (604) 682-2344, Local 62363
- Cytology: (604) 806-8181
- Renal Laboratory: (604) 682-2344, Local 62225
- Frozen Section Pathologist: Pager 34154 (8:00 AM 5:00 PM, Monday to Friday)
- After-Hours On-Call Pathologist: Refer to the on-call schedule.

#### **Key Personnel**

- Laboratory Medical Director: Dr. Lik Hang Lee, overseeing all anatomic pathology services.
- **Team Lead:** Bobby Grewal, contact for operational concerns.
- Technical Coordinators: Responsible for specialty areas like cytology, histology, and immunohistochemistry. Chris Wong, Aimee Jong, Reggie Naidu



### **Specimen Submission Guidelines**

#### **General Guidelines**

- Ideally, all tissues, cells and other specimens derived from patients should be submitted for pathologic examination.
- The decision not to submit specific types of specimens to the laboratory (Anatomic Pathology (AP)) is made in consultation with laboratory medical staff. See tissue discard appendix
- Ensure labels include at least two patient identifiers (e.g., full name, date of birth).
- Include clinical history and procedural details such as time of collection and fixation.
- Maintain proper specimen orientation and documentation.

#### **After-Hours Procedures**

- Bring specimens to Laboratory Accessioning open 24/7 everyday.
- Place specimens in the main laboratory refrigerator.
- Notify staff for any rush or large specimens- on staff call will need to handle these specimens

#### **CST Cerner Orders and Documentation**

- Providers can order specimens for pathology online and print internal requisitions via Cerner.
- Manual requisitions are required for non-Cerner facilities.

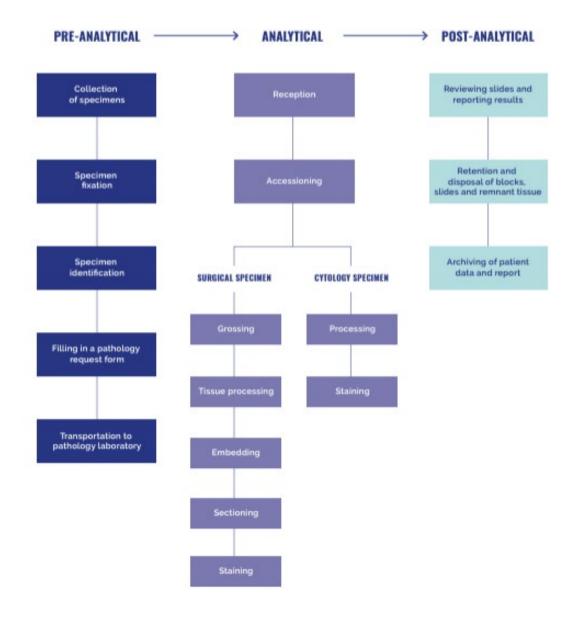
#### Submission Criteria from Clinics / Referral hospitals

- Ensure a 1:10 to 1:20 tissue-to-formalin ratio for fixed specimens.
- Use leak-proof containers for large specimens.
- Place unfixed specimens in sterile containers with saline-dampened sponges if immediate transfer to fixative is not possible.



#### Pre-Analytical Workflow Overview

- 1. **Collection:** Clinicians collect specimens following best practices to prevent contamination.
- 2. **Fixation:** Specimens are placed in 10% Neutral Buffered Formalin (NBF) with a 1:15 to 1:20 ratio of fixative to tissue.
- 3. Labeling: Include patient identifiers and collection details.
- 4. **Transport:** Use sealed, leak-proof containers.
- 5. **Documentation:** Ensure requisition forms include complete patient details, clinical history, and procedural notes





### Sample Integrity and Labeling Requirements

#### **Labeling Criteria**

- Use waterproof labels with patient's full name, date of birth, and MRN.
- Include specimen type and source on all containers.
- Ensure specimen labels match requisition forms exactly.

#### **Submission Protocols**

- Fresh specimens must be transported promptly.
- Formalin-fixed specimens require a proper fixative ratio.





### **Section 5: Tissue Discard Groups**

#### Definition

• Tissue discard groups refer to specific categories of biological materials that must be disposed of according to strict protocols based on type and origin.

#### **Documentation Requirements**

- All discarded tissues must be logged, including the patient's name, MRN, date of discard, and the type
  of tissue
- Ensure compliance with institutional and provincial biohazard disposal regulations.

### Section 6: Special Specimen Handling

#### **Tissue Transport**

- Fresh specimens must be transported promptly to the pathology lab. For delays, specimens should be refrigerated or kept moist in sterile saline-soaked sponges.
- For remote locations, ensure temperature-controlled shipping to prevent overheating or freezing.

#### **Specialized Biopsy Recommendations**

- Cardiac Biopsy: Handle with care to avoid crush artifacts.
- Breast Tissue: Document ischemic and fixation times
- Nerve Biopsy: Submit unfixed in sterile containers with saline-moistened gauze.
- Muscle Biopsy: Follow collection guidelines for snap frozen, Light microscopy and EM
- Lymphoma Protocol: Deliver fresh to avoid delays; do not place in formalin.



**Specimen Submission Table-** Please contact lab for any questions.

#	Specimen Type	Fixative/Instructions	Requisition	Delivery Instructions
1	Routine Biopsies/Surgical	10% buffered formalin, 10X the volume of tissue	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk. After hours 24/7 accessioning desk in laboratory.
2	Cornea Specimens	10% buffered formalin, 10X the volume of tissue	Cerner Enterprise Requisition or  Provincial pathology consultation form	Same as above.
3	CVR (Heart Biopsy)	Pick up kit from lab	Cerner Enterprise Requisition or  Provincial pathology consultation form	Call pager 34361 and deliver to Anatomical Pathology accessioning desk as soon as possible.
4	Lymphoma Protocol	Pick up kit from lab	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.
5	Molecular Genetics	Saline	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.
6	Nerve and Muscle Biopsy	Pick up kit from lab	Cerner Enterprise Requisition or  Provincial pathology consultation form	Inform lab at local 62225 and deliver to Anatomical Pathology accessioning desk as soon as possible.



#	Specimen Type	Fixative/Instructions	Requisition	Delivery Instructions	
7	Renal Biopsy	Notify Renal Lab (604.682.2344, Local 62225 or 62227)	Cerner Enterprise Requisition or  Provincial pathology consultation form	Monday to Friday, technologists will pick up the biopsy. After-hour biopsy requests to go through the renal pathologist.	
8	Skin for Immunofluorescence	Pick up kit from lab	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.	
9	Stones	No fixative	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk. At night, leave in the box labeled Histology in General lab accessioning desk, or in the fridge's DROP OFF BIN.	
10	Placenta for Embryopathology and/or Cytogenetics	No fixative	Cytogenetics or Embryopathology forms available at www.elabhandbook.info	Deliver fresh specimen to Anatomical Pathology accessioning desk immediately. On weekends or Stat Holidays, place in Lab Accessioning refrigerator. Note: Specimens placed in fixative cannot undergo cytogenetics or embryopathology testing.	
11	Placenta for Routine Investigation	10% buffered formalin, 10X the volume of tissue Requisition or Provincial patholoconsultation form		Handle like other surgical samples per referring ward, clinic, or OR department protocol.	
12	Fetus <20 Weeks	No fixative	No requisition	Deliver fresh specimen to Anatomical Pathology accessioning desk immediately. On weekends or Stat Holidays, place in Lab Accessioning refrigerator.	
13	Stillborn >20 Weeks	llborn >20 Weeks No fixative		Follow autopsy case protocol.	



#	Specimen Type	Fixative/Instructions	Requisition	Delivery Instructions
14	Stillborn >20 Weeks (If an autopsy is required)	No fixative	PHC-LA137 Forms available online	Follow autopsy request protocol.
15	Tissue for Trace Elements	No fixative, wrap fresh specimen in gauze, place in sterile container, deliver on ice	Trace Element Lab Requisition form available at www.elabhandbook.info	Deliver to Anatomical Pathology accessioning desk immediately.

### **CYTOLOGY Specimens CST orderable**

	Specimen Type	Fixative/Instructions	Requisition	Delivery Instructions
1	Bronchial Aspiration/Brushing	CytoLyt	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.
2	Voided Urine	Sterile container (no fixative)	Cerner Enterprise Requisition or  Provincial pathology consultation form	As above.
3	Catheterized Urine		Cerner Enterprise Requisition or  Provincial pathology consultation form	As above.
4	Sputum	Sterile container (no fixative)	Cerner Enterprise Requisition or  Provincial pathology consultation form	As above.
5	Common Bile Duct Brushing, Esophageal Brushing, Gastric Brushing	Sterile container (no fixative)	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.
6	Cerebrospinal Fluid	Sterile tube (follow current lab protocol)		As above.



#	Specimen Type	Fixative/Instructions	Requisition	Delivery Instructions
7	Body Fluid Specimens (Pleural, Pericardial, Peritoneal, Synovial/Joint Fluid)	Sterile container (no fixative)	Cerner Enterprise Requisition or  Provincial pathology consultation form	As above.
8	Fine Needle Aspirate (FNA)	CytoLyt	Cerner Enterprise Requisition or  Provincial pathology consultation form	As above.
9	Lymphoma Protocol	Kit in Room 33 of Radiology	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to Anatomical Pathology accessioning desk as soon as possible.
10	Pelvic Wash/Peritoneal Washing from the OR	CytoLyt	Cerner Enterprise Requisition or  Provincial pathology consultation form	Deliver to the specimen drop-off basket in the outer laboratory of the OR.

### Workflow and Transport

- Intra-Hospital: Specimens collected and transported within PHC facilities must adhere to handling and transport schedules to maintain specimen integrity.
- Inter-Hospital: Follow Transport Canada's TDG requirements for specimens sent to external facilities.



### **Rush and Urgent Specimens**

- **Rush:** Clearly label specimens requiring immediate processing. Deliver immediately upon collection and call laboratory or frozen section/ on call pathologist to confirm.
- **Urgent:** Label specimens that are prioritized over routine but not immediate; deliver promptly to the lab
  - o Routine Surgical Specimens: 3-5 business days.
  - o **Complex Biopsies** (e.g., cardiac, renal): 2–5 business days, depending on testing and special handling.
  - o **Rush Specimens:** Processed and reported within 24 hours.
  - o Immunohistochemistry (IHC) Testing: Typically 1–3 business days after the initial diagnosis.
  - o **Electron Microscopy:** 7–10 business days, depending on external processing requirements.
  - Cytology (Non-GYN): 3–5 business days.
  - o Research Specimens: Variable, based on project scope and approval processes.

### **Quality Control**

#### Specimen Rejection Policy

#### Rejection Criteria:

- o Missing or incomplete requisitions.
- o Unlabeled or mismatched specimens.
- Insufficient fixative volume.
- o Specimens received outside acceptable transport conditions (e.g., overheating or freezing).
- o Specimens requiring specific handling submitted incorrectly (e.g., in formalin when fresh was needed).

#### Resolution:

- o Will Notify the submitting clinician of deficiencies and track and trend
- o Allow corrections, such as resubmitting corrected requisitions or labels.
- o Reject specimens only as a last resort if discrepancies cannot be resolved.



#### Research and Clinical Trials

#### Approval and Documentation

- All research requests must be approved by the PHC Ethics Review Board and comply with institutional policies.
- Complete the "Request for Research Services" form and submit it with the corresponding pathology requisition.

#### **Special Testing Protocols**

- Coordinate testing for clinical trials in advance to ensure adherence to sponsor timelines.
- Use validated methods for ancillary tests requested by research teams.

### **Release of Patient Specimens**

#### **Policies and Procedures**

- Specimens may only be released upon completion of the required documentation and approval from the lab director or designee.
- Release forms must include patient identifiers, destination details, and the purpose of the release.

#### **Confidentiality Guidelines**

- Ensure compliance with PHC's patient confidentiality policies and applicable privacy laws.
- De-identify specimens for teaching or research unless explicit patient consent has been obtained.



### **Appendices-** Documents linked

- Appendix A: Follow Link Anatomical Pathology Critical Values
- Appendix B: Follow Link <u>Guidelines for Ancillary Test Integration</u>
- Appendix C: <u>Block and Slide Retention Guidelines</u>
- Appendix D: Specimens Not Required for Submission to Pathology for Examination
- Appendix E: Release of specimens -Consent and Release Forms
  - Policy
  - Procedure
  - Consent to complete
- Appendix F: Anatomical Pathology Quality Assurance program for pathologist



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