

Anatomic Pathology Submission Guide

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Folder Name:Anatomic Pathology\Accessioning and Grossroom

Address: 622 West 168th Street, PH3-303, New York, NY 10032

Printed copies not valid.

TITLE: SPECIMENS FOR ANATOMIC PATHOLOGY, NYP/CUMC

PURPOSE: To provide proper care, handling and disposition of tissues, fluids and foreign bodies that are removed from the surgical patient in the operating room for surgical pathology study.

Table of Contents

ANATOMIC PATHOLOGY LABORATORY 2

 GENERAL INFORMATION..... 2

 ANATOMIC PATHOLOGY DROP OFF LOCATIONS / TRANSPORTATION / PICK-UP OF SPECIMENS 3

 ORDERING OF LABORATORY TESTS 6

 SPECIMEN REQUISITION FORMS 7

 SPECIMEN ACCEPTABILITY POLICY 7

ANATOMIC PATHOLOGY - ROUTINE SPECIMENS..... 8

 NO PATHOLOGY EXAMINATION..... 8

 SPECIMENS FOR GROSS DESCRIPTION ONLY 8

 STORAGE OF HARDWARE, PROSTHESIS, TISSUE EXPANDERS, FOREIGN BODIES ETC. 9

 OPENING SPECIMEN IN THE OR 9

 ROUTINE SPECIMENS – NO SPECIAL STUDIES 9

ANATOMIC PATHOLOGY LABORATORY – SPECIMENS REQUIRING SPECIAL HANDLING/TESTING 10

 AMPUTATIONS..... 10

 BLOOD OR BONE MARROW..... 12

 BONE MARROW BIOPSY/ASPIRATE..... 13

 BREAST BIOPSY..... 14

 CARDIAC BIOPSY 15

 CD34+ STEM CELL ENUMERATION BY FLOW CYTOMETRY 16

 CYTOLOGY - BODY FLUID 18

 CYTOLOGY - BREAST DISCHARGE..... 19

 CYTOLOGY - BRUSHING..... 20

 CYTOLOGY - BRONCHIAL WASHING / LAVAGE 21

 CYTOLOGY - CEREBRAL SPINAL FLUID 22

 CYTOLOGY - CERVICAL / VAGINAL LIQUID-BASED SAMPLE..... 23

Folder Name: Anatomic Pathology\Accessioning and Grossroom

CYTOLOGY - SPUTUM CYTOLOGY SERIES.....	25
CYTOGENETICS.....	26
ELECTRON MICROSCOPY (EM).....	27
FINE NEEDLE ASPIRATION BIOPSY (FNA).....	28
FINE NEEDLE ASPIRATION CYTOLOGY, INTRA-OPERATIVE (RAPID DIAGNOSIS).....	30
FLOW CYTOMETRY CROSSMATCH.....	31
FLUORESCENT <i>IN SITU</i> HYBRIDIZATION (FISH).....	32
INTRA-OPERATIVE CONSULTATION – FROZEN SECTION.....	33
INTRA-OPERATIVE CONSULTATION – TUMOR BANK.....	43
IMMUNOFLUORESCENT STUDIES.....	45
IMMUNOPHENOTYPE OF LYMPHOMA AND LEUKEMIA.....	47
LYMPH NODES.....	48
OB/GYN PATHOLOGY.....	49
PLACENTA TISSUE EXAMINATION.....	51
RADIOACTIVE SPECIMENS.....	52
RENAL BIOPSY.....	54
RUSH (SAME DAY / NEXT DAY) SPECIMENS.....	55

ANATOMIC PATHOLOGY LABORATORY

GENERAL INFORMATION

1. Anatomic Pathology Contact Information:
 - a. **Anatomic Pathology Phone Number**
 - i. 212-305-6719
 1. Option #1: Request a frozen section.
 2. Option #2: Request a pathology report or to speak with a pathologist.
 3. Option #3: Questions regarding specimens including how to submit specimens.
 4. Option #4: Kit requests.
 5. Option #5: Slide send-out requests and consult requests.
 6. Option #6: All other options.
 - b. **Anatomic Pathology Reception / Specimen Drop-Off**
 - i. Location
 1. Vanderbilt Clinic 14th Floor, Room 241
 - ii. Hours of Operation
 1. Monday-Friday: 8:00 AM – 5:30 PM
 - a. Specimens must be dropped off to the accessioning/reception office no later than 5:00 PM. Formalin-fixed specimens may be placed in the drop box in front of the accessioning window (VC-241) after 5:00 PM. Fresh specimens may **NOT**, under any circumstances, be placed in the drop box after 5:00 PM.
 2. Weekend / Holidays: Closed

After Normal Business Hours, Weekends and Holidays, please page the Anatomical Pathology Service at x8-0035.

ANATOMIC PATHOLOGY DROP OFF LOCATIONS / TRANSPORTATION / PICK-UP OF SPECIMENS

POLICY

- All **Anatomic Pathology** specimens that are placed in a designated **Anatomic Pathology drop-off location** are picked up for transport during normal business hours (8:00 AM – 5:00 PM).
- All specimens must be logged into the pathology specimen log book.
- Transporters will sign and record the date and time of each transport pick-up in the specimen log book, including in the absence of specimens for pick-up.
- Specimens that are misplaced in a designated Anatomic Pathology transport location are also picked-up, delivered to pathology where the correct destination is determined by a supervisor.
- According to the attached schedule, a pathology designated transporter travels to each area listed according to the scheduled times.

NOTE ALL EMPLOYEES MUST FOLLOW UNIVERSAL PRECAUTIONS AND THE SURGICAL PATHOLOGY INFECTION CONTROL POLICY AS DOCUMENTED IN EACH LABORATORY SAFETY MANUAL:

- Gloves should be worn at all times when handling specimens.
- Do not touch other objects in a room while wearing contaminated gloves.
- Hands must be washed after handling specimens and removing gloves.

The transport to enable timely transportation of specimens, are split into two runs that coincide. (see Schedule A & B)

TRANSPORT SCHEDULE A

8:00am - 9:00am

Pick up Specimens:

1. Phone, Dry Ice, and O.R Schedule
2. Frozen Section Milstein 4th floor
3. Milstein 4th floor O.R Utility Room
4. Milstein 3rd floor O.R Utility Room
5. Milstein 3B Operative Room
6. Babies Hospital 4th floor Utility Room

Folder Name: Anatomic Pathology\Accessioning and Grossroom

10:00am - 11:30pm

Pick up and/or Drop Off Specimens:

1. Flow & Foca
2. Molecular
3. Cytology
4. Cytogenetics (check refrigerator in the Gross Room for specimens)
5. Milstein 3rd floor O.R Utility Room
6. Milstein 3B Operative Room
7. Milstein Heart Center 2nd floor
8. Milstein 6 Hudson North 6th floor
9. Milstein 4th floor O.R Utility Room
10. Cystoscopy Suite Milstein 4th floor
11. Frozen Section Milstein 4th floor

1:00pm - 2:00pm

Pick Up Specimens:

1. Harkness Pavilion Transplant Center 11th floor Utility Room
2. Herbert Irving Pavilion:
 - a. Urology Department 11th floor
 - b. Breast Imaging 10th floor Utility Room
 - c. Hematology/Oncology 9th floor
 - d. Endocrine Surgery Utility Room 8th floor
 - e. Vascular Surgery Drop Box 5th floor
 - f. Nurses' Station 4th floor and Gynecology Office
 - g. Nurses' Station 2nd floor
 - h. Garden Suite Bone Marrow Kit Drop Box Garden Level
 - i. Herbert Irving Pavilion Nurses' Station Room G16 Garden Level
 - j. Endoscopy Suite 13th floor

2:15pm – 3:30pm

Pick Up Specimens:

1. Core Lab (Specimens are to be dropped off only)
2. Endoscopy /Procedure Suite Vanderbilt Clinic 3rd floor
3. Eye Institute Central Building 7th floor
4. 6 Hudson North Milstein 6th floor
5. Cystoscopy Suite Milstein 4th floor
6. Frozen Section Milstein 4th floor
7. Milstein 4th floor O.R Utility Room
8. Interventional Radiology Milstein 4th floor
9. Milstein 3rd floor O.R Utility Room
10. Milstein 3B Operative Room
11. Heart Center Milstein 2nd floor

3:45pm – 4:15

1. Endoscopy Suite 13th floor
2. Harkness Pavilion 7th floor
3. Harkness Pavilion Transplant Center 11th floor Utility Room

4:30pm – 5:00

1. Flow
2. Molecular
3. Cytogenetics (check refrigerator in the Gross Room for specimens)

TRANSPORT SCHEDULE B

8:00am - 9:00am

Pick up Specimens:

1. Harkness Pavilion Transplant Center 11th floor Utility Room
2. Endoscopy Suite 13th floor
3. Core Lab (Specimens are to be picked up only)
4. Babies Hospital Maternity & Labor Department 10th floor

10:30am - 11:30am

Pick up Specimens:

1. Herbert Irving Pavilion:
 - a. Urology Department 11th floor
 - b. Breast Imaging 10th floor Utility Room
 - c. Hematology/Oncology 9th floor
 - d. Endocrine Surgery Utility Room 8th floor
 - e. Vascular Surgery Drop Box 5th floor
 - f. Nurses' Station 4th floor and GYN Office
 - g. Nurses' Station 2nd floor
 - h. Garden Suite Bone Marrow Kit Drop Box Garden Level
 - i. Endoscopy Suite 13th floor

11:45pm – 12:30pm

Pick up and/or Drop Off Specimens:

1. Flow & Foca
2. Molecular
3. Cytology
4. Cytogenetics (check refrigerator in the Gross Room for specimens)

1:15pm - 2:00pm

Pick up Specimens:

1. Milstein 3B Operative Room

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

2. Milstein Heart Center 2nd floor
3. Milstein 3rd floor O.R Utility Room
4. Milstein 4th floor O.R Utility Room
5. Frozen Section Milstein 4th floor

2:30pm – 3:30pm

Pick up and/or Drop Off Specimens:

1. Flow & Foca
2. Cytology
3. FISH & Cytogenetics (check refrigerator in Gross Room for Specimens)
4. Babies Hospital 4th floor Utility Room
5. Babies Hospital 7th floor
6. Molecular

3:30pm – 4:45pm

Pick Up Specimens:

1. Herbert Irving Pavilion:
 - a. Urology Department 11th floor
 - b. Breast Imaging 10th floor Utility Room
 - c. Endocrine Surgery Utility Room 8th floor
 - d. Vascular Surgery Drop Box 5th floor
 - e. Nurses' Station 4th floor and Gynecology Office
 - f. Nurses' Station 2nd floor
2. Babies Hospitals 3rd floor Recovery Room

4:45pm – 5:30pm

Pick up and/or Drop Off Specimens:

1. Hematology/Oncology 9th floor
2. Garden Suite Bone Marrow Kit Drop Box Garden Level
3. Milstein 6 Hudson North 6th floor

Other Transport Services within the Medical Center.

TRANSPORT (305-7155 Earlene Cook) picks up and delivers from all Milstein floors and patient units, CHONY for stat specimens, Dialysis, Harkness Pavilion, Eye Clinic.

LAB SUPPORT (305-0697 Joan Tudor) picks up and delivers from PH12 Endoscopy, Atchley Pavilion 1st floor, Milstein 4th floor Cystoscopy

NOTE: Anatomic Pathology DOES NOT pick-up OR deliver on request. Please **contact Transport for Stat on Demand @ 305-7155** (Supervisor Earlene Cook).

ORDERING OF LABORATORY TESTS

The laboratories examine specimens ONLY at the request of physicians or other personnel authorized by law to use the findings of laboratory examinations.

Under the New York State Rules for Laboratories, all test requests must include the patient name or other unique identifier; the name or identifier of the person ordering the test; the tests to be performed; the date and time if this is necessary for proper execution of the test and any additional information. If any of this information is not provided, it can be obtained by telephone and entered by the laboratory at the discretion of the laboratory. Under the new rules, a laboratory may not report the result on a test specimen until this information has been obtained.

* If delay will adversely affect the specimen, the specimen should be processed as usual. However, the results should not be made final and available in the hospital information system (CIS) until such information is provided.

SPECIMEN REQUISITION FORMS

POLICY:

Anatomic Pathology laboratory requisition slips are required to accompany all specimens for processing (See the New York Presbyterian Hospital Operating Room Policy and Procedures for the Care and Handling of Surgical Specimens). Each requisition form includes the following information:

- The patient's name, unit number, date of birth and sex.
- "The New York Presbyterian Hospital - Anatomical Pathology."
- The date of collection.
- The ordering physician.
- Pre-operative diagnosis.
- Post-operative diagnosis.
- Clinical information.
- Number of specimens and identification of each specimen.

*** All original requisition forms are maintained in numerical order, on the premises for no less than two years. Requisition forms that exceed the two-year minimum storage are stored off the premises in a warehouse and are retrievable within 24 hours.

SPECIMEN ACCEPTABILITY POLICY

All Nursing Care Units, Out-Patient Blood Drawing locations and Ambulatory Care Services must provide plastic transport bags to ensure the safety of the messenger, phlebotomist or personnel who deliver laboratory specimens. The bags can be ordered through the distribution center and the catalogue number to order your supply is 1019.16. The bag has two pockets: the requisition is placed in the clear side and the specimen container in the other side. If ice is used to maintain the integrity of the specimen, put the ice in a separate sealed bag and place it in the compartment with the specimen container. Large containers must be placed in large plastic bags and the requisition attached to the outside of the bag to prevent contamination. No specimen is delivered to the laboratory without a requisition or a specimen transport

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bag. Messengers are requested not to wear gloves between floor pickups and are encouraged to use gloves only when picking up a specimen that is not properly bagged resulting in contamination of the bag. Hands must be washed after delivery of specimens to the labs.

Submitting physicians are immediately notified of all problem cases. All problem cases will be documented in the "Transport Problem Log" or the "Accessioning Problem Log" (See "Discrepancy and Problem Specimens Policy"). Unacceptable specimens include all specimens identified as **Mislabeled Specimens**- any discrepancy in the patient name, specimen site or container count in comparison to the requisition form and **Unlabeled Specimens**- absence of patient's name or unit number. All forms and notes completed to authorize changes, corrections, or labeling must be attached to the original requisition form and a copy must be filed in the Accessioning Problem Case log.

Note: Unlabelled biopsies are processed by 5 PM and grossed as "received unlabelled with an accompanying requisition form with the patient name...." The case will not be signed out until the container has been labeled.

ANATOMIC PATHOLOGY - ROUTINE SPECIMENS

NO PATHOLOGY EXAMINATION

POLICY:

The Rules and Regulations of the New York Presbyterian Medical Center require that all specimens removed at surgery be submitted to Surgical Pathology for examination. The exceptions to this are as follows:

- Bone donated to the bone bank
- Cataracts removed by phacoemulsification
- Dental appliance
- Placentas not specified for pathological examination in Langston et al, Arch Pathol Lab Med, 121:453, May 1997
- Saphenous vein segments harvested for coronary artery bypass grafts
- Therapeutic radioactive sources

SPECIMENS FOR GROSS DESCRIPTION ONLY

POLICY:

All specimens received by Anatomic Pathology are examined microscopically, with the exception of those specimens that cannot be paraffin embedded to yield histologic sections and have no attached tissue for microscopic examination.

Examples of specimens requiring only a gross (macroscopic) examination include, but are not limited to:

- Breast prostheses (attached soft tissue is submitted for histologic examination)
- Catheters, tubes, stents and mesh (attached soft tissue is submitted for histologic examination)
- Orthopedic hardware

- Rib segments removed for gaining surgical access
- Prosthetic heart valves (attached soft tissue is submitted for histologic examination)
- Stones
- Pacemaker generators
- Intrauterine devices
- Tissue expanders

STORAGE OF HARDWARE, PROSTHESIS, TISSUE EXPANDERS, FOREIGN BODIES ETC.

POLICY

All the hardware, prosthesis, tissue expanders, foreign bodies etc received in the gross room for gross description are marked “store”. These containers are put in a separate shelf and are periodically entered in a logbook and boxed. The box has a list of the containers on its side and is shifted to the warehouse for storage of 5 years.

OPENING SPECIMENS IN THE OR

Specimens should be opened and examined in the anatomic pathology laboratory only. The nurse ensures that the surgeon assumes responsibility for the tissue if he/she opens it in the OR. If the surgeon would like to orient the pathology staff, an intraoperative consult may be requested.

ROUTINE SPECIMENS – NO SPECIAL STUDIES

Applies To:

1. Tissue removed during a surgical procedure for routine anatomic pathology evaluation.

Pathologic Examination Includes:

1. Routine gross and microscopic examination with H&E stain (special stains and special studies if needed).

Specimen Submission Instructions:

1. Place the specimen in an appropriate sized specimen container.
2. Label the specimen container with the patient's name, unit number, date, and type of specimen.
3. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (ie, age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy) and infectious diseases suspected.
4. Special handling requirements (isolation) should be clearly noted on the requisition.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

Specimen Fixation:

1. The specimen should be placed in formalin if available (the ratio MUST be as follows: 1 part specimen to 10 parts formalin).
2. If formalin is not available and the specimen is a biopsy specimen or small specimen, place the specimen on a saline soaked gauze.
3. If formalin is not available, immediately deliver the specimen to pathology or place the specimen in a refrigerator in a pathology pick-up location.

Specimen Transport:

1. Specimen should be delivered to pathology immediately after procedure or placed in a refrigerator at one of the pathology pick-up locations.

Causes for Delay in Specimen Processing:

1. Unlabeled/Mislabeled specimen bag/container
2. Requisition form not properly filled out
3. Requisition form not accompanying specimen

Turnaround Time

1. 3-4 working days after receipt of specimen (post gross and microscopic review)

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

ANATOMIC PATHOLOGY LABORATORY – SPECIMENS REQUIRING SPECIAL HANDLING/TESTING

AMPUTATIONS

Applies To:

1. A limb at or above the wrist or ankle

Pathologic Examination Includes:

1. Routine gross and microscopic examination with H&E stain (special stains and special studies if needed).

Specimen Submission Instructions:

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Grossroom

1. Place the limb/specimen in an impervious container or wrapping. ***Do not use red bags (contaminated waste bags) to contain the limb.***
2. Label the container/plastic bag and appropriate anatomic pathology requisition form with the patient's name, unit number, date, and type of specimen.
 - a. Please note on the Surgical Pathology Requisition Form if private burial has been requested (Please note: the specimen will be released for burial after the case has been signed out)
3. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy) and infectious diseases suspected.
4. Special handling requirements (isolation) should be clearly noted on the requisition.
5. Attach the requisition to the plastic bag.

Specimen Fixation:

1. The specimen does not need to be placed in fixative.
2. The specimen must be placed in the refrigerator until it is picked-up/delivered to pathology.

Specimen Transport:

1. Place the specimen in the appropriate Anatomic Pathology pick-up location.
2. After hours, if the limb does not fit in one of the Anatomic Pathology refrigerator pick-up locations
 - a. Call transport (305-2773) and have them place the limb in the morgue cooler.
 - b. Leave a message with the patient's name, unit number, date, and type of specimen with the Surgical Pathology Office (342-0465).

Release of Specimen for Burial:

1. Burial certificates must be obtained from the Admitting Department.
2. The specimen can be released after the specimen has been processed by pathology and the case has been signed out.
3. The specimen can be picked up by the Admitting Department or Funeral Director only.

Causes for Delay in Specimen Processing:

1. Unlabeled/Mislabeled specimen bag/container
2. Requisition form not properly filled out
3. Requisition form not accompanying specimen

Turnaround Time

1. 3-4 working days after receipt of specimen (post gross and microscopic review)

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

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Synonyms

Body Parts, Burial or Disposal; Burial of Body Parts; Disposal of Body Parts

BLOOD OR BONE MARROW

Applies To:

1. Diagnosis of acute/chronic leukemias and other hematolymphoid neoplasms

Pathologic Examination Includes:

1. Routine morphologic evaluation of smear slides.
2. Flow cytometry analysis.
3. Cytogenetic analysis.
4. Molecular PCR analysis.

Specimen Collection Instructions:

1. Routine venipuncture or bone marrow aspiration
2. Obtain bone marrow specimen using the usual aseptic aspiration procedures.
 - a. When multiple samples are to be aspirated, the first sample is always taken for preparing marrow films; routine venipuncture for blood specimen.
 - b. Prepare slides.
3. Full tube blood 7 mL lavender top (EDTA) tube.

Specimen Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis and pertinent clinical history (i.e., age, clinical impression, past diagnosis, radiographic findings, and history of radiation or chemotherapy) is essential to interpretation and should be noted on the Anatomic Pathology Requisition Form.
2. Infectious diseases suspected and special stains requested should be specified.
3. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Fixation

1. **DO NOT** place specimens in fixative.

Specimen Transport:

1. Specimen must be received by the laboratory by 5 PM on day of collection.

Causes for Delay in Specimen Processing:

1. Blood clotted
2. QNS
3. Does not meet labeling requirements
4. Specimen not fresh
5. No bone marrow particles on smear

Folder Name: Anatomic Pathology\Accessioning and Grossroom

Turnaround Time

1. 24-48 hours (or more, depending on required ancillary studies)

Contact Information

Hemato/Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

BONE MARROW BIOPSY/ASPIRATE

Applies To:

1. Evaluation of bone marrow morphology, erythropoiesis, myelopoiesis, myeloid/erythroid ratio, megakaryocytes, cellularity, and marrow iron stores; evaluate etiology of abnormalities of production of RBC, WBC, or platelets; establish the presence of various lymphoproliferative, myeloproliferative or metastatic diseases.

Pathologic Examination Includes:

1. Routine light microscopy preparations examined histologically (Paraffin-embedded, thin sections of bone marrow; H&E stain) or aspirate smear slides stained with Wright-Giemsa for WBC differential and cytomorphologic review.
2. Special histochemistry (iron, reticulin, trichrome, AFB, GMS, PAS etc.) and/or immunohistochemistry (a large variety of markers are available) if indicated.
3. Flow cytometry analysis of aspirate samples.
4. Cytogenetic analysis of aspirate samples.
5. Molecular PCR analysis.

Specimen Collection Instructions:

1. 2-5 mL of aspirate and a minimum of 1 cm core of bone marrow.
2. **Limitations** Presence of normal or non-diagnostic marrow at one site may not exclude the possibility of disease elsewhere in the marrow.

Specimen Submission Instructions:

1. Appropriate clinical history is essential to interpretation and should be received with all specimens clearly written on an Anatomic Pathology Requisition Form.
2. Label specimen container and Anatomic Pathology Requisition Form with patient's name, unit record number, date, time of collection, and type of specimen.
3. Specimens received in the Pathology Laboratory after 5 PM will not be processed until the following day.

Specimen Fixation:

1. Bone marrow core biopsy is to be placed in Bouin's fixative (Fixative for the specimen is provided by the Surgical Pathology Laboratory).
2. Specimens must have fixative.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

Specimen Transport:

1. Bring specimens to the Pathology Laboratory (VC14-241) immediately; do not store.

Causes for Delay in Specimen Processing:

1. No marrow obtained (no core identified in the container).
2. Specimen container, requisition form, aspirate smear slides do not meet labeling requirements

Turnaround Time

1. 24-48 hours (or more, depending on required ancillary studies)

Contact Information

Hemato/Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

Synonyms Bone Marrow Aspirate; Bone Marrow Iron Stain; Iron Stain, Bone Marrow

BREAST BIOPSY

Applies To:

1. Suspected tumor tissue, breast biopsies (needle core, ultrasound guided, etc...), excisions, lumpectomies

Pathologic Examination Includes:

1. Immediate gross exam / frozen tissue section (if necessary).
2. Routine surgical pathology (Gross and microscopic examination with H & E stain; special stains and special studies if needed)
3. Breast cancer prognostic profile, estrogen receptor assay, estrogen/progesterone receptor assay (if necessary).

Specimen Collection Instructions:

1. Only a pathologist should incise specimens or the evaluation of surgical margins may be compromised
2. Label specimen with patient's name, unit record number, date and time of collection, and type of specimen.
3. Specimen orientation is desirable for direction of potential further surgery; therefore, it is sometimes necessary for the surgeon to provide markers (superior, lateral, inferior, medial, deep, superficial) in a combination appropriate for the setting of a given neoplasm.
4. Confirm the presence of calcific structures identified in mammograms and characterize them. Specimen radiography is commonly performed to confirm that the biopsied tissue contains the calcific structures, but it cannot provide a diagnostic explanation for them.

Special Submission Instructions:

Folder Name: Anatomic Pathology\Accessioning and Grossroom

1. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. If the specimen is placed in formalin
 - a. The ratio MUST be as follows: 1 part specimen to 10 parts formalin
 - b. The time the specimen was placed in formalin MUST be noted on the requisition
4. If the margins are inked by the surgeon, a color legend MUST accompany the specimen.
5. If sutures and/or metal clips are used to provide markers, their designation MUST be noted on the requisition.

Specimen Transport

1. Specimen should be delivered to pathology immediately after procedure or placed in a refrigerator at one of the pathology pick-up locations.

Causes for Delay in Specimen Processing:

1. Unlabeled/Mislabeled specimen bag/container
2. Requisition form not properly filled out
3. Requisition form not accompanying specimen
4. Excessive delay in transport
5. Inadequate amount of specimen

Turnaround Time

1. Core biopsies: 1-2 working days; lumpectomies/mastectomies: 3-4 working days

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

CARDIAC BIOPSY

Applies To:

1. Cardiac Biopsy; Heart Biopsy; Myocardial Biopsy; Right Ventricular Biopsy

Pathologic Examination Includes:

1. Light microscopy (including hematoxylin and eosin, Mason's trichrome, Verhoeff's elastic, reticulin PAS, PAS-Diastase, Prussian blue, Congo red, and crystal violet stains) with immunofluorescence and electron microscopy as required

Specimen Collection Instructions:

1. A minimum of four pieces of endomyocardium are recommended for pathologic evaluation.

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

2. Tissue for routine pathologic examination should be placed in prepared 30 mL plastic, formalin-filled containers provided to all cardiac cath labs by surgical pathology.
3. Tissue for immunofluorescence should be placed in transport medium or snap-frozen.
4. Tissue for electron microscopy should be placed in 2.5% glutaraldehyde

Special Submission Instructions:

1. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. When possible, all specimens should be kept at 4°C.

Specimen Fixation:

1. Tissue for routine pathologic examination should be placed in prepared 30mL plastic, formalin-filled containers provided to all cardiac cath labs by surgical pathology.
2. Tissue for immunofluorescence should be placed in transport medium or snap-frozen.
3. Tissue for electron microscopy should be placed in 2.5% glutaraldehyde

Specimen Transport

1. Place in refrigerator at Pathology Pick-Up area
2. For urgent, same day assessment (i.e., transplant rejection) evaluation can be arranged directly with the pathologist, if the specimen is hand-delivered to the laboratory before 11 AM.

Causes for Delay in Specimen Processing:

1. Unlabeled or mislabeled specimen container,
2. Requisition form not properly filled out or not accompanying specimen

Turnaround Time

1. 24 hours for light microscopy without histochemical stains
2. 48 hours with histochemical stains
3. 10 days with electron microscopic evaluation

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

CD34+ STEM CELL ENUMERATION BY FLOW CYTOMETRY

Applies To:

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

1. Enumeration of viable hematopoietic CD34+ stem cells from patients undergoing autologous stem cell transplantation or allogeneic donors.

Pathologic Examination Includes:

1. Staining with 7-AAD and anti-CD34 and -CD45 monoclonal antibodies.
2. Enumeration of viable hematopoietic stem cells using single platform flow cytometry.

Specimen Collection Instructions:

1. **Peripheral blood:** Routine venipuncture using lavender top (K₃ EDTA) or green top (Sodium heparin) Vacutainer®
 - a. Volume: 1-5 mL
 - b. Minimum Volume: 1 mL
2. **Leukapheresis product:** 1-3 mL

Special Specimen Submission Instructions:

1. Information regarding type of specimen and pertinent clinical history (i.e. age, clinical impression, past diagnosis, past and current treatment) should be noted on the requisition form.
2. Infectious diseases suspected should be specified.
3. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Fixation:

1. **DO NOT** place specimens in fixative. Formalin-fixed tissue cannot be used for flow cytometry.

Specimen Transport:

1. Transport to the laboratory immediately at room temperature. **Do not refrigerate.**

Causes for Delay in Specimen Processing:

1. Broken tube and/or wrong Vacutainer®
2. Unlabeled specimen
3. Coagulation, hemolysis, and/or insufficient number of cells

Turnaround Time

4-8 hours

Contact Information

Immunogenetics Laboratory/ Flow Cytometry

P&S 14-404

Tel. 212-305-3607

Fax 212-305-3429

Mon-Fri: 9 AM – 5 PM

Synonyms

Enumeration of Viable Hematopoietic Stem Cells; CD34 Enumeration

CYTOLOGY - BODY FLUID

Applies To:

1. Ascitic Fluid Cytology; Culdocentesis; Eye Fluid Cytology; Hydrocele Fluid Cytology; Ocular Fluid Cytology; Paracentesis Fluid Cytology; Pericardial Fluid Cytology; Pericardiocentesis Fluid Cytology; Peritoneal Fluid Cytology; Peritoneal Washing Cytology; Pleural Fluid Cytology; Synovial Fluid Cytology; Thoracentesis Fluid Cytology; Vitreous Fluid Cytology

Pathologic Examination Includes:

1. Cytologic evaluation of smears, cytocentrifuge preparations, and cell block when indicated

Specimen Collection Instructions:

1. Patient Preparation: Aseptic site preparation.
2. Add 1 mL heparin per 100 mL fluid anticipated (each mL heparin contains 1000 units).
3. **Minimum Volume** 5 mL
4. Body fluid should be placed in a clean glass or plastic container with cover, no fixative
5. Label the specimen container with the patient's name, unit number, date, and type of specimen.

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Fixative should not be added to the specimen.

Specimen Transport:

1. Deliver immediately to cytology laboratory.
2. If immediate delivery is not possible, place specimen in refrigerator at pathology pick-up location.

Causes for Delay in Specimen Processing:

1. Fixation of any type.
2. Gross contamination due to spillage.
3. Prolonged period (more than 24 hours) at room temperature.
4. Unlabeled container

Turnaround Time

1. ≤ 3 Business Days

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

Synonyms

Effusions Cytology; Fluids Cytology

CYTOLOGY - BREAST DISCHARGE

Applies To:

1. Breast discharge fluid.

Pathologic Examination Includes:

1. Examination of stained slides.

Specimen Collection Instructions:

1. **Patient Preparation** Nipple should be cleaned vigorously to remove loose skin cells.
2. Write patient's name with lead pencil on frosted end of clean slide.
3. Allow nipple fluid to drip onto the slide, or touch clean slide to nipple directly. If necessary, apply pressure to the quadrant of the breast leading to the affected duct.
4. Spread material evenly over slide and place immediately in 95% alcohol or fix with Spray-Cyte®.

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Spread material evenly over slide and place immediately in 95% alcohol or fix with Spray-Cyte®.

Specimen Transport:

1. Deliver immediately to cytology laboratory.
2. If immediate delivery is not possible, place specimen in pathology pick-up location.

Causes for Delay in Specimen Processing:

1. Improper fixative.
2. Drying artifact.

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Turnaround Time

1. ≤ 3 Business Days

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

Synonyms

Breast Discharge Cytology; Nipple Discharge; Nipple Drainage; Nipple Fluid

CYTOLOGY - BRUSHING

Applies To:

1. Bronchial Brushings Cytology; Colonic Brushings Cytology; Conjunctival Smears; Esophageal Brushings Cytology; Gastric Brushings Cytology; Gastrointestinal Tract Cytology Brushings; Oropharyngeal Brushings Cytology; Small Bowel Brushings Cytology; Tracheal Brushings Cytology; Tract Cytology Brushings; Ureteral Brushing Cytology; Urethral Brushings Cytology.

Pathologic Examination Includes:

1. Examination of prepared smears.

Specimen Collection Instructions:

1. **Patient Preparation** For gastrointestinal brushings (at the discretion of the gastroenterologist), patient must be fasting at least 12 hours prior to procedure. Wait 72 hours after barium examination.
2. Write patient's name with lead pencil on frosted end of clean slide.
3. Brush from lesion area.
4. Spread material evenly and place immediately in 95% alcohol or fix with Spray-Cyte®.

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, radiographic findings, bronchoscopic findings, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Spread material evenly over slide and place immediately in 95% alcohol or fix with Spray-Cyte®.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

Specimen Transport:

1. Deliver immediately to cytology laboratory.
2. If immediate delivery is not possible, place specimen in pathology pick-up location.

Causes for Delay in Specimen Processing:

1. Improper fixation.
2. Air drying artifact (delayed fixation of smears).
3. Patient not fasting.
4. Specimen obtained earlier than 72 hours after barium enema (in gastrointestinal brushings).
5. Improperly labeled specimen and/or requisition.
6. Too few cells for diagnosis.

Turnaround Time

1. 48 hours

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

CYTOLOGY - BRONCHIAL WASHING / LAVAGE

Applies To:

1. Bronchial washing / lavage.

Pathologic Examination Includes:

1. Cytologic evaluation of smears, cytocentrifuge preparations, and cell block when indicated.

Specimen Collection Instructions:

1. Clean, new specimen container with green top.
2. Label the specimen container with the patient's name, unit number, date, and type of specimen.
3. **Minimum Volume** 80 mL

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen (bronchial washing or lavage), admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, radiographic findings, bronchoscopic findings, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.

3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Send fresh. No fixative required.

Specimen Transport:

1. Send specimen to Central Processing as soon as possible in a plastic Biohazard bag.
2. If a delay is anticipated, specimen should be refrigerated.

Causes for Delay in Specimen Processing:

1. No patient identification on requisition form or container.
2. Discrepant information on requisition form and container.
3. No attending physician's name on requisition (Cytology cannot process any specimen without an attending physician's name).
4. Specimen leakage/drying.

Turnaround Time

1. ≤ 3 Business Days

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

CYTOLOGY - CEREBRAL SPINAL FLUID

Applies To:

1. Lumbar Puncture; Ventricular Tap.

Pathologic Examination Includes:

1. Cytospin

Specimen Collection Instructions:

1. For best results use the **red top** glass tubes that already contain 2 mL of fixative.
2. Mix immediately at bedside equal parts of CSF using a red top tube or a sterile tube with equal amounts of 10% formalin.
3. **Minimum Volume** 2mL.
4. Label the specimen container with the patient's name, unit number, date, and type of specimen.

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen (bronchial washing or lavage), admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, radiographic findings, bronchoscopic findings, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Equal amounts of 10% formalin.

Specimen Transport:

1. Transport fixed specimen to laboratory immediately.
2. Store in refrigerator if transport to the laboratory must be delayed.

Causes for Delay in Specimen Processing:

1. Unlabeled container.

Turnaround Time

1. ≤ 3 Business Days

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

Synonyms

CSF Cytology; Spinal Fluid Cytology

CYTOLOGY - CERVICAL / VAGINAL LIQUID-BASED SAMPLE

Applies To:

1. Cervical/vaginal cytology specimen.

Pathologic Examination Includes:

1. Microscopic examination of one to three slides of cervical and/or vaginal scrapings.

Specimen Collection Instructions:

1. **Patient Preparation** Patient should avoid douches and intercourse 24 hours prior to examination.

Folder Name: Anatomic Pathology\Accessioning and
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2. Sampling:

- a. Endocervix: Gentle brush of endocervical canal
 - i. Brush - Use a tapered cytobrush to sample endocervical cells; remove mucous plug if present, before sampling the endocervical canal. Vigorously agitate brush in fixative to transfer cells to fluid.
 - b. Ectocervical scrape: With spatula, thoroughly scrape the entire ectocervix with emphasis on the squamocolumnar junction (transformation zone). Transfer cells to fixative by vigorously agitating cap container, discard brush and scraper, and send container to the laboratory.
 - c. Direct scraping smear: Direct scrape of grossly visible lesion, smeared and fixed as previously described.
3. Brush and cervical scrape are recommended in all cases. Endometrial aspirations are not advised for routine use. For lesions of the vagina, scrapings made directly from the lesion are desirable. Scraping of the upper third of the lateral vagina wall is most suitable for hormonal evaluation.
 4. Cells should be placed in a container containing the fixative fluid (Thin Prep) and labeled with the patient's name, unit number, date, and type of specimen.

Specimen Submission Instructions:

1. The specimen must be accompanied by a OB/Gyn Cytology requisition form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, radiographic findings, bronchoscopic findings, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Cells in liquid fixative (Thin Prep).

Specimen Transport:

1. Deliver immediately to cytology laboratory.
2. If immediate delivery is not possible, place specimen in pathology pick-up location.

Causes for Delay in Specimen Processing:

1. Inadequate sample.

Turnaround Time

1. ≤ 10 Business Days

Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

Synonyms

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

Cervical Cancer Test; Cervical Smear; Fluid-Based Pap; Genital Cytology; Liquid-Based Cytology; Papanicolaou Smear; Pap Smear; Pap Test; Thin Prep Pap; Vaginal Cytology

CYTOLOGY - SPUTUM CYTOLOGY SERIES

Applies To:

1. Expecterated sputum, **not saliva or nasal aspirates**

Pathologic Examination Includes:

1. Three consecutive first morning, deep cough sputum specimens.

Specimen Collection Instructions:

1. **Patient Preparation** It should be explained that the contents of the collection container are not to be consumed by patient.
2. Upon arising, patient should rinse mouth with water and expectorate a deep cough specimen into plastic container with cover, no fixative.
3. **Minimum Volume** 3 mL (1 tablespoon).
4. Seal container tightly.
5. Bring each specimen to Cytology Laboratory as soon as possible.

Specimen Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the type of specimen (bronchial washing or lavage), admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, radiographic findings, bronchoscopic findings, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Special handling requirements (isolation) should be clearly noted on the requisition.
3. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Do not add anticoagulant or fixative.

Specimen Transport:

1. Transport fresh specimen to the laboratory as soon as possible.
2. Refrigerate specimen if it cannot be processed promptly.

Causes for Delay in Specimen Processing:

1. Fixation with formalin,
2. Saliva or nasal aspirates

Turnaround Time

1. 24 hours

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Contact Information

Cytology
P&S16, Room 406
Mon-Friday, 9AM-5PM
(212) 305-2360

Synonyms

Induced Sputum (by respiratory therapy personnel); Pulmonary Cytology Series

CYTOGENETICS

Applies To:

1. Tissue (e.g. Bone marrow, peripheral blood, lymph node, body fluids, or other hematological-related tissues) in appropriate condition is critical to identify acquired chromosome abnormalities associated with malignancy, which may be tumor specific and aid in diagnosis, prognosis and treatment decisions.

Pathologic Examination Includes:

1. Direct, overnight, and/or specific mitogen-stimulated cultures of lymphocytes from peripheral blood, bone marrow, and lymph nodes or any other relevant tissues.
2. Preparation of metaphase spreads and G-banded chromosome analysis

Specimen Collection Instructions:

1. All specimens should be handled aseptically.
2. Bone marrow aspirate, venipuncture, lymph node dissection:
 - a. Container Brown top (sodium heparin) tube or lavender top (EDTA) tube
 - i. One 3 mL tube for bone marrow
 - ii. 5-10 mL peripheral blood
 - iii. **Minimum Volume** 2 mL
 - b. 1 cm³ section lymph node
3. Contact the laboratory for any other type of hematologic tissue.

Specimen Submission Instructions:

1. Reasons for cytogenetics evaluation must be stated in **diagnosis** section on the Cancer Cytogenetics Request Form.
2. If the specimen is a rush specimen, indicate on the requisition or notify the laboratory.
3. If FISH is requested, separate sample is not required, but indicate the type of probes for FISH studies on the requisition.

Specimen Handling:

1. All specimens should be submitted fresh or on saline soaked gauze. **No fixative** should be added.

Specimen Transport:

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

1. Specimens should be maintained at room temperature and delivered to the laboratory as soon as possible after collection or within 24 hours.

Causes for Failure:

1. Delay in transport over 2 days
2. Hemolysis or specimen clotting
3. Inadequate specimen

Turnaround Time

Routine: 7-9 days; rush specimens: 3-6 days

Contact Information

Genetics Laboratory
(212) 305-9341
Mon-Fri, 9 AM - 5 PM

Synonyms Chromosome Analysis, Bone Marrow; Chromosome Analysis, Lymph Node; Chromosome Analysis, Unstimulated Blood; Karyotype Analysis

ELECTRON MICROSCOPY (EM)

Applies To:

1. Special Studies (e.g. Endomyocardial biopsies, Muscle biopsies, Nerve biopsies, Renal biopsies), Tumor, Other...

Pathologic Examination Includes:

1. Electron microscopic evaluation of ultrathin sections of a satisfactory specimen.

Specimen Collection Instructions:

1. If glutaraldehyde is available, the specimen should be cut immediately after removal from the patient, minced into cubes 1 mm or less, and placed in Glutaraldehyde (2.5%) vial.
2. If glutaraldehyde is not available, fresh specimens may be submitted to the pathology laboratory on a sterile gauze pad moistened with sterile normal saline.
3. Label specimen container with patient's name, unit record number, date and time of collection, and type of specimen.
4. A specimen should also be submitted for routine light microscopic evaluation at the time the specimen is obtained for electron microscopic study. When renal biopsies are obtained, immunofluorescence studies are usually also desirable.
5. Deliver the specimen immediately to the Pathology Laboratory. Electron micrographs are stored in Pathology as a permanent record.

Special Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, clinical impression, past diagnosis, radiographic findings, and history of radiation or chemotherapy) is essential to interpretation and should be noted on the Anatomic Pathology Requisition Form.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

2. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Transport

1. Transport specimen to the Pathology Laboratory immediately.
2. After hours, place tissue, minced to 1 mm³ cubes, in the vial with 2.5% glutaraldehyde fixative and refrigerate until delivery.

Causes for Delay in Specimen Processing:

1. Specimen placed inappropriately in formalin, rather than glutaraldehyde.
2. Unlabeled specimen bag or container.
3. Request form not properly filled out or not accompanying specimen

Turnaround Time

1. 2-3 weeks for non-renal specimens
2. 1-2 weeks for renal specimens

Contact Information

Renal Pathology Laboratory
VC14, Room 224
Mon-Fri, 9 AM - 5 PM
(212) 305-7460

Synonyms EM; Transmission Electron Microscopy; Ultrastructural Study

FINE NEEDLE ASPIRATION BIOPSY (FNA)

Applies To:

1. Fine needle aspiration biopsy specimens

Pathologic Examination Includes:

1. Immediate stain study for adequacy, with a portable microscope.
2. Routine gross/histologic/microscopic examination with H & E stain unless otherwise specified
3. Air-dried and/or alcohol-fixed slides for Diff-Quick stain and Pap stain.
4. Specimen in cytolyte for ThinPrep.

Specimen Collection Instructions:

1. Label slides in pencil with patient's name and medical record number.
2. Place bevel of needle against glass slide and express aspirated material onto slide.
3. Place a second, clean slide on top of the first, allow weight of slide to spread the drop, and then pull the slides apart, maintaining the slides parallel to each other.
4. **Note:** Tips and demonstrations of slide/specimen smearing techniques and smear concentration techniques are available from cytopathologists upon request; call 305-2360.
5. Slides may be allowed to air dry (preferred method), or may be sprayed **immediately** with spray fixative.

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Grossroom

- a. Smears allowed to air dry should be waved in the air to promote rapid drying; rapid drying yields more optimal cellular preservation and better cytologic interpretation.

Special Submission Instructions:

1. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the exact body site source of FNA material, type of specimen, laterality of specimen (right or left, inner or outer, etc...), admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
2. Please indicate the character or appearance of the aspirated sample (i.e., bloody, mucoid, foul-smelling).
3. Indicate on requisition form whether slides were air dried or spray fixed.
4. Special handling requirements (isolation) should be clearly noted on the requisition.
5. Submit slides (labeled in pencil with the patient's name and medical record number) in a cardboard slide tray (preferred).
6. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Fixation:

1. Slides should be air dried or spray fixed.

Specimen Transport

1. Send slides in cardboard container(s) to Central Processing as soon as possible in a plastic Biohazard bag.

Causes for Delay in Specimen Processing:

1. No patient identification on requisition form or slide(s).
2. Discrepant information on requisition form and slide(s).
3. No attending physician's name on requisition (Cytology cannot process any specimen without an attending physician's name).
4. Slides broken beyond repair.

Turnaround Time

1. ≤ 3 working days after receipt of specimen (post gross and microscopic review)

Contact Information

Cytology
P&S16, Room 406
Mon-Fri, 9 AM – 5 PM
(212) 305-2360

FINE NEEDLE ASPIRATION CYTOLOGY, INTRA-OPERATIVE (ADEQUACY ASSESSMENT)

Applies To:

1. Diagnose primary or metastatic malignant neoplasms vs benign process (I.e., benign neoplasm or infectious process); determine immediate surgical and oncologic therapy.

Pathologic Examination Includes:

1. Immediate (10-15 minutes) interpretation / microscopic evaluation of stained slides followed by routine permanent cytology report.

Specimen Collection Instructions:

1. Place needle aspirate onto glass slide. Place another glass slide on top of specimen. Slide the two slides apart as in blood smear preparation and fix one slide immediately in 95% ethyl alcohol and allow the other slide to air dry.
2. Rinse needle with 10-20 mL cytolyte or formalin and expel rinse material into cytolyte or formalin container.
3. Label frosted slides with patient's name and MRN.
4. Label bottle with type of specimen, patient's name, hospital number, and date.

Specimen Submission Instructions:

1. Send slides (At least one fixed slide in 95% alcohol and one unfixed air-dried slide should be submitted, clearly indicating on slide label in pencil which slide is fixed and which is air-dried) to Cytology Laboratory.
2. **Notify** Cytology Department that specimen has been sent for rapid diagnosis.
3. The specimen must be accompanied by a Non-Gynecologic Cytology Requisition containing information regarding the exact body site source of FNA material, type of specimen, laterality of specimen (right or left, inner or outer, etc...), admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, information regarding previous malignancy, infections, drugs, radiation therapy, or history of alcohol abuse) and infectious diseases suspected.
4. Please indicate the character or appearance of the aspirated sample (e.g., bloody, mucoid, foul-smelling).
5. Indicate on requisition form whether slides were air dried or spray fixed.
6. Special handling requirements (isolation) should be clearly noted on the requisition.
7. Submit slides (labeled in pencil with the patient's name and medical record number) in a cardboard slide tray (preferred).
8. The attending physician's name (last and first), pager number, and phone number must be included and legible. Cytology cannot process any specimen without an attending physician's name.

Specimen Transport:

1. Deliver immediately to the Cytology Laboratory.

Causes for Delay in Specimen Processing:

1. Improper labeling
2. Incomplete or improperly filled out requisition

Turnaround Time

Folder Name: Anatomic Pathology\Accessioning and Grossroom

1. Immediate (10-15 minutes) interpretation followed by routine permanent cytology report

Contact Information

Cytology
P&S16-406
Mon-Fri, 9 AM – 5 PM
(212) 305-2360

Synonyms

Frozen Section Cytology; IOFNA

FLOW CYTOMETRY CROSSMATCH

Applies To:

1. Pre- and post-transplant immunological evaluation of organ allograft recipients.
2. Assessment of recipient sensitization to alloantigens or autoantigens expressed on T and/or B lymphocytes.
3. Flow cytometry determination of antibody binding to autologous or transplant donor lymphocytes.

Pathologic Examination Includes:

1. Isolation of peripheral blood mononucleated cells.
2. Detection of serum antibodies which bind to autologous or donor lymphocytes using flow cytometry.

Specimen Collection Instructions:

1. Routine venipuncture
 - a. Collect 10-20 mL (minimum volume: 10 mL) of peripheral blood from the recipient and potential donor(s), using yellow top (ACD) Vacutainer®
 - b. Collect one golden top (gel clotting activator) tube from the recipient.

Special Submission Instructions:

1. Information regarding admitting diagnosis, pertinent clinical history (i.e. age, clinical impression, past diagnosis, past or current treatment with anti-lymphocytic antibodies, such as Thymoglobulin, Rituximab or Campath) is essential to the interpretation of the test results and should be noted on the requisition form.
2. Infectious diseases suspected should be specified.
3. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Fixation:

1. **DO NOT** place specimens in fixative. Formalin-fixed tissue cannot be used for flow cytometry

Specimen Transport:

1. Transport to the laboratory immediately at room temperature. **Do not refrigerate.**

Causes for Delay in Specimen Processing:

1. Broken tube and/or wrong Vacutainer®
2. Unlabeled specimen
3. Coagulation, hemolysis, and/or insufficient number of cells
4. Specimen more than 48 hours old

Turnaround Time

1. 48 hours

Contact Information

Immunogenetics Laboratory/ Flow Cytometry
P&S 14-404
Tel. 212-305-6941 or 212-305-3607
Fax 212-305-3429
Mon-Fri: 9 AM – 5 PM

Synonyms

Immunofluorescence Crossmatch for Antilymphocytic Antibodies

FLUORESCENT *IN SITU* HYBRIDIZATION (FISH)

Applies To:

1. Detect chromosomal aberrations below the resolution of conventional cytogenetics; rapid testing of specific changes in non-dividing cells; quantification of chromosomal abnormalities

Pathologic Examination Includes:

1. Analysis of metaphase chromosomes or interphase nuclei with region-specific DNA probes, detected by fluorescent microscopy.
2. Number of targets analyzed depends upon the specific test.

Specimen Collection Instructions:

1. Any specimen for which chromosome analysis can be performed. If requested in conjunction with routine chromosome analysis, a separate specimen is not necessary. See instructions for each specimen type.
2. Clinical indications:
 - a. Patients with suspected chromosomal rearrangements below the resolution of standard cytogenetic techniques; patients with microdeletion or duplication syndromes for which DNA probes are available; used to clarify the nature of visible cytogenetic rearrangements
 - b. Analysis of aneuploidy for a specific chromosome in interphase nuclei, especially of uncultured amniotic fluid cells or bone marrow
 - c. Analysis of specific cancer-associated chromosome changes in interphase nuclei from hematologic malignancies and solid tumors

Specimen Submission Instructions:

Folder Name: Anatomic Pathology\Accessioning and Grossroom

1. Reason for testing and specific FISH test requested (microdeletion, aneuploidy, *bcr/abl* etc) must be included on the requisition (General Requisition for blood or tissue specimens; Prenatal Genetics Requisition for amniotic fluid or chorionic villus samples; Cancer Cytogenetics Requisition for cancer specimens).
2. Prenatal FISH testing must be approved by contacting the laboratory director at ext 67143.

Specimen Handling:

1. All specimens should be submitted fresh or on saline soaked gauze. **No fixative** should be added.

Specimen Transport:

1. Specimens should be maintained at room temperature and delivered to the laboratory as soon as possible after collection or within 24 hours.

Causes for Failure:

1. Delay in transport over 2 days
2. Hemolysis or specimen clotting
3. Inadequate specimen

Turnaround Time

1. Routine: 7-10 days.
2. Rush specimens: 1-3 days

Contact Information

Genetics Laboratory
(212) 305-9341
Mon-Fri, 9 AM - 5 PM

Synonyms FISH

INTRA-OPERATIVE CONSULTATION – FROZEN SECTION

Applies To:

1. Tissue for immediate gross and/or microscopic examination

Pathologic Examination Includes:

1. Rapid gross and/or microscopic interpretation
2. Gross examination and/or frozen section interpretation, followed by routine histopathology report.
3. Imprints and or smears may be made on fresh tissue and material may be saved for future studies or stained and examined immediately.

Specimen Collection Instructions:

1. Submit fresh tissue (with **no** added fixative or fluid) in a sterile container, petri dish or towel as soon as possible following removal from patient.

2. Label container or towel with patient's name, unit record number, date, time of collection, operating room phone number, and type of specimen.

Special Submission Instructions:

1. **Availability** 24 hours (see telephone numbers above)
2. Observe telephone numbers below and allow approximately 15 minutes for pathologist to travel to the operating rooms.
 - a. Neuropathology
 - i. During normal business hours (Monday – Friday, 9 AM – 5 PM) please page the Neuropathology Fellow at 8-2416.
 - ii. If the page is not answered in a timely manner, please call the neuropathology office at 305-4531.
 - iii. After Normal Business Hours, Weekends and Holidays, please page the Neuropathology Fellow at 8-2416.
 - b. OB/GYN Pathology
 - i. During normal business hours (Monday – Friday, 8 AM – 5 PM) please call 305-3531.
 1. If there is no answer at 305-3531, please page the GYN pager at 8-1222.
 - ii. After Normal Business Hours, Weekends and Holidays, please page the GYN pager at 8-1222.
 1. If an Intra-Operative consultation is desired after 5 PM and the GYN office/resident/attending has not been notified prior to 5 PM, please page the Surgical Pathology Service.
 - c. Surgical Pathology
 - i. During normal business hours (Monday – Friday, 8:00 AM – 5:00 PM) please call 342-0465.
 - ii. After Normal Business Hours, Weekends and Holidays, please page the Surgical Pathology Service at x8-0035.
3. **Request Form** Anatomic Pathology Form (Neuropathology and Surgical Pathology); OB/GYN Pathology Form **as well as** an Intraoperative Request Form.
 - a. Information regarding type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, clinical impression, past diagnosis, radiographic finding, and history of radiation or chemotherapy) is essential to interpretation and should be noted on the requisition.
 - b. Special handling requirements (isolation) should be clearly noted on the requisition.
 - c. Be sure to clearly state what evaluation is to be made (i.e., evaluation of tumor margins, confirmation of tumor, identification of tissue type, etc).
4. Please Note Limitations:
 - a. Bone or heavily calcified tissue cannot be frozen.
 - b. Tissues dominated by fat are technically difficult to cut and may not be amenable to frozen sections.
 - c. Sampling errors occur, leading to false-negative diagnoses.
 - d. Some lesions require permanent sections for definitive diagnosis, such as occasional problematic breast lesions (i.e., papillary lesions, atypical lobular, and some intraductal hyperplasia's).
 - e. In some cases, diagnosis must be delayed for permanent sections. Because of sampling problems, negative margins in tumor resections may be of very limited value, especially when such margins are of substantial size.
 - f. Patients usually should not be kept anesthetized while multiple frozen section blocks are processed, cut, stained, and examined, when paraffin sections would serve as well, or better.
 - g. Frozen section is enormously more useful in providing diagnosis of a visible lesion, than trying to rule out the possibility of an entity of microscopic proportions, such as lobular carcinoma *in situ* (LCIS). LCIS, in fact, should not be diagnosed on frozen section but only on good quality paraffin sections.

- h.** Certain tissues demand cytologic, as well as histologic, evaluation for a proper diagnosis and are therefore best examined on permanent section only; these include cone biopsies of the cervix, endometrial curetting's, lymph nodes when lymphoma is suspected, pigmented skin lesions, etc.
- i.** Tissue is consumed in the process of frozen section. Tiny critical specimens (for example, possible breast carcinomas less than 5 mm in diameter) are best not risked. Breast specimens not grossly suspicious, should not be frozen.
- j.** The freezing process may distort lymphoid as well as other tissues; therefore, for suspected lymphoma, it is advisable to await proper fixation of the lymph node and paraffin sections for definitive diagnosis; but frozen sections are commonly utilized for immunohistochemical work-up of lymphoid lesions.

Specimen Transport:

1. Deliver immediately to Frozen Section Laboratory (Milstein 4), or call pathologist for pick-up in the O.R. (see telephone numbers above).
2. O.R. personnel must **always** place specimen in hands of histotechnician or pathologist.

Causes for Delay in Specimen Processing:

1. Specimen submitted in fixative, water, or saline
2. Mislabeled / Unlabeled specimen container
3. Incomplete patient information/history
4. No requisition form

Turnaround Time

1. Approximately 15-20 minutes **per specimen part** to be evaluated, from time of receipt of specimen in the laboratory
 - a. Written and verbal communication between pathologist and surgeon must occur at the time of frozen section diagnosis, according to requirements both of regulatory agencies and of good patient care.
2. Permanent diagnosis - 2-4 working days after receipt of specimen (post gross and microscopic review)

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

INTRA-OPERATIVE CONSULTATION – TUMOR BANK

The tumor bank procures, bar codes, stores, annotates and distributes to investigators tumor and normal frozen tissue for diagnostic molecular studies and research purposes. It operates under IRB approval, is HIPAA compliant, is licensed by the New York State Department of Health, follows NCI best practices for biospecimen resources and is governed by a tissue utilization committee.

General Information:

Hours of Operation:
Monday – Friday

Folder Name: Anatomic Pathology\Accessioning and Grossroom

10:00AM-6:00PM

Pager Number: x8-0211

Phone Number: 212-342-0468

*Before/after normal business hours, weekends and holidays, please page the on-call Surgical Pathology Service at x8-0035.

Tumor Bank Team:

Hanina Hibshoosh, *MPSR Tumor Bank Director, M.D.*

Sun Dajiang (Kevin), *MPSR Tumor Bank Manager*

E-mail: tissuebank@columbia.edu

Telephone: 212-305-1608

Christopher Lufkin, *MPSR Tumor Bank Coordinator, PA*

E-mail: cl3559@cumc.columbia.edu

Telephone: 212-305-2243

Cell Phone Number: 347-852-3837

Mohammad Ullah, *Tumor Bank Procurer, PA*

Lysette Seegobin, *Tumor Bank Procurer, PA (ASCP)*

Applies To:

Tissue requesting molecular studies and tumor bank procurement.

Specimen Collection Instructions:

Submit fresh tissue (with no added fixative or fluid) in a sterile container as soon as possible following removal from the patient. Label the container with the patient's name, unit record number, date, time of collection, operating room phone number and type of specimen.

Submission Instructions:

The operating room will call the pathology department for intra-operative tissue consultation for one of the following purposes:

- 1) Frozen section only (cpt 88331 and 88332) including specimens to open.
- 2) Frozen section with tissue procurement for molecular studies/tumor bank (cpt codes 88331 + 88388) – adult and pediatric.
- 3) Lymphoma panel (88329) for flow cytometry, tissue freezing, cytogenetics (See Hemepath protocol).
- 4) Pediatric tissue for freezing for molecular studies/tumor bank (88387).
- 5) Adult tissue for freezing for molecular studies/tumor bank (88387).
- 6) Lung protocol – Interstitial lung disease – Adult or peds (88387).

The call will be handled by the front desk in Pathology. For numbers 1-3, a resident and the tumor bank PA staff will be dispatched and the pathology attending notified. For numbers 4-6, the tumor bank PA staff covering tissue freezing/procurement will be dispatched.

Request Form:

All cases, for CPT coding purposes, must have a completed requisition form and an intra-operative consultation form with the diagnosis and the service requested (1-Frozen section and molecular banking, 2-Molecular banking only, 3-Lymphoma evaluation (with banking) or 4-Lung (ILD) evaluation) clearly indicated on the form(s). The intra-operative consultation form must be **signed** by the submitting surgeon. The pathology attending assigned to frozen section for the

Folder Name: Anatomic Pathology\Accessioning and Grossroom

day needs to sign the intra-operative form to document the molecular banking service, as for all intra-operative consultations. The report should read ***“tumor and normal tissue obtained for genomic testing, using clean, non-sterile technique, and snap frozen for future use”***.

Specimen Transport:

After contacting the pathology department for a requested service, deliver the tissue immediately to the frozen section laboratory (Milstein 4th floor) if **both frozen section and molecular banking** are required. If **molecular banking only** is required, notify the pathology department so that the tumor bank PA staff can pick-up the specimen directly from the operating room.

IMMUNOFLUORESCENT STUDIES

Applies To:

1. Determine the presence of tissue deposits of IgG, IgM, IgA, C1q, C3, kappa and lambda light chains, fibrin and albumin in medical renal diseases (including but not limited to immune-mediated and dysproteinemia-related conditions), immunological and hereditary diseases of skin (such as IgG, IgM, IgA, C3, C1q, collagen IV alpha-1 and alpha-3), immune mediated diseases of lung (SLE, vasculitis, Goodpasture's syndrome), diseases of muscle (dystrophin and other proteins), diseases of nerve (immunoglobulins and complement proteins), and allograft pathology (C4d to exclude antibody-mediated rejection). For the renal allograft biopsies, the routine panel of IgG, IgM, IgA, C1q, C3, kappa and lambda light chains, fibrin and albumin is reserved for the initial allograft biopsy and for any biopsy performed for suspected glomerular disease to exclude de novo or recurrent medical renal disease.

Pathologic Examination Includes:

1. Routine histopathology.
2. Fluorescent immunohistochemistry for immunoglobulins (IgG, IgA, IgM), complement (C1, C3), fibrin, kappa and lambda light chains. In cases of suspected Alport syndrome, stains for the collagen IV isotypes (alpha-1, alpha-3 and alpha-5) are performed.

Specimen Collection Instructions:

1. Label specimen container with patient's name, unit record number, date, time of collection, and type of specimen.
2. Place biopsy of muscle, lung, kidney, nerve, heart, and neoplasm submitted fresh in gauze moistened with normal saline as soon as possible following removal. Renal biopsies will be divided by a technician in the renal pathology laboratory (VC14-224) for light microscopy (placed in formalin) and for immunofluorescence (snap frozen in the pathology laboratory) and electron microscopy (placed in 2.5% glutaraldehyde). If a renal biopsy is performed after hours and requires storage overnight, containers of formalin for light microscopy, Zeus fixative for immunofluorescence and glutaraldehyde for EM should be obtained from the laboratory prior to the procedure. The specimen should be divided, placed into the appropriate vials and delivered to the renal pathology laboratory the following day.

Special Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, clinical presenting features, past medical history, medication history, and radiographic findings) is essential to interpretation and should be noted on the Anatomic Pathology Requisition Form.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

2. Special handling requirements (isolation) should clearly be noted on the requisition.
3. Submit additional specimen in formalin for light microscopy.

Specimen Transport

1. Deliver immediately to the Pathology Laboratory. Renal Pathology Laboratory is located in VC14-224. (305-7460)

Causes for Delay in Specimen Processing:

1. Specimen allowed to dry.
2. Insufficient specimen

Turnaround Time

1. 24 hours for endomyocardial and renal biopsies (including light microscopy and immunofluorescence).
2. Approximately 2 weeks for neuropathology specimens.

Contact Information

Renal Pathology (VC14-224)
(212) 305-7460
Mon-Fri, 9 AM - 5 PM

Synonyms Direct Immunofluorescent Studies, Biopsy; Fluorescent Studies, Biopsy

IMMUNOPHENOTYPE OF LYMPHOMA AND LEUKEMIA

Applies To:

1. Analysis of hematopoietic cell populations using multicolor flow cytometry.
2. Identification of abnormal hematopoietic cell populations.

Pathologic Examination Includes:

1. Cell staining using comprehensive panels of fluorochrome-labeled antibodies.
2. Multicolor flow cytometric analysis for identification of hematopoietic cell populations at different stages of maturation/ differentiation.
3. Determination of the relative frequency of hematopoietic cell populations.

Specimen Collection Instructions:

1. **Peripheral blood:** Routine venipuncture using green top (Sodium heparin) or lavender top (K₃ EDTA) Vacutainer®.
 - a. Volume: 1-10 mL
 - b. Minimum Volume: 1 mL or 1 x 10⁵ cells/marker
2. **Lymphocyte/leukocyte suspension:** Prepared from lymph node or other tissues (in RPMI)
 - a. Cell counts: Minimum 1 x 10⁵ cells/marker
3. **Bone marrow aspirates:** Green top (Sodium heparin) or lavender top (K₃ EDTA) Vacutainer®.
 - a. Volume: 1-3 mL

Special Specimen Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis and pertinent clinical history (i.e. age, clinical impression, past diagnosis, radiographic findings and history of radiation, chemotherapy or stem cell transplantation) should be noted on the requisition form.
2. Infectious diseases suspected should be specified.
3. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Fixation:

1. **DO NOT** place specimens in fixative. Formalin-fixed tissue cannot be used for flow cytometry.

Specimen Transport:

1. Transport to the laboratory immediately at room temperature.

Causes for Delay in Specimen Processing:

1. Any sample received that does not meet the requisition labeling requirements and transport requirements may be rejected.
2. Sample age exceeding maximum allowed, specifically in reference to peripheral blood.
3. Broken tube and/or wrong Vacutainer®.
4. Unlabeled specimen.
5. Coagulation, hemolysis, and/or insufficient number of cells.
6. Complex work-up needed, as deemed by Hematopathology attending.

Turnaround Time

1. 48 hours

Contact Information

Immunogenetics Laboratory/ Flow Cytometry
P&S 14-404
Tel. 212-305-3607
Fax 212-305-3429
Mon-Fri: 9 AM – 5 PM

Synonyms

Leukemia/Lymphoma Panel ; Cell Markers by Flow Cytometry

LYMPH NODES

Applies To:

1. Lymph node or other tissues suspected of harboring lymphoma (rule out lymphoma, lymphoma work-up) and various lymphadenopathies.

Pathologic Examination Includes:

Folder Name: Anatomic Pathology\Accessioning and Grossroom

1. Imprint/touch smears preparation, microscopic examination of paraffin sections for routine histology, H&E stain; histochemistry (if necessary); immunostaining (indicated in most cases).
2. Flow cytometry analysis of fresh tissue samples.
3. Cytogenetic analysis.
4. Molecular PCR analysis.

Specimen Collection Instructions:

1. Label specimen container and Anatomic Pathology Requisition Form with patient's name, unit record number, date, time of collection, and type of specimen.
2. Place specimen in a sterile container or petri dish on a saline moistened piece of gauze.

Specimen Submission Instructions:

1. DO NOT place specimens in fixative (since ancillary studies/lymphoma work-up require fresh tissue samples).
2. Information regarding type of specimen, admitting diagnosis and pertinent clinical history (age, clinical impression, past diagnosis (es), radiographic findings, and history of radiation and/or chemotherapy) is essential to interpretation and should be noted on the Anatomic Pathology Requisition Form.
3. Infectious diseases suspected and special stains requested should be specified.
4. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Fixation:

1. DO NOT place specimens in fixative.
2. Formalin-fixed tissue cannot be used for culture, flow cytometry, cytogenetics, or imprints.

Specimen Transport:

1. Lymph node biopsies should be immediately delivered to the Pathology Laboratory, uncut, in saline, and in a small sterile container.
2. Refrigerate specimen if it cannot be processed promptly.

Causes for Delay in Specimen Processing:

1. Desiccated specimen
2. Incomplete patient information/history
3. Mislabeled / Unlabeled specimen container
4. No requisition form

Turnaround Time

1. 2-3 days (or more, depending on required ancillary studies)

Contact Information

Hemato/Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

OB/GYN PATHOLOGY

Applies To:

1. Obstetrical & Gynecological tissue for pathologic examination.

Pathologic Examination Includes:

1. Gross and/or microscopic examination and/or diagnosis.
2. Special studies if needed.

Specimen Collection Instructions:

1. Specimens should be placed in an appropriate sized container
2. Label specimen container and OB/GYN Pathology requisition form with patient's name, unit number, date, time of collection, and type of specimen.

Specimen Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, LMP (if female), clinical impression, past diagnoses, radiographic findings, and history of radiation or chemotherapy) is essential to interpretation and should be noted on the requisition.
2. Special handling requirements (isolation) should clearly be noted on the requisition.
3. **"RUSH"** cases: Arrangements must be made in advance with the pathologist assigned to "rush" cases. Please also indicate "rush" and the reason for this designation on the requisition form.
4. **Large specimens:** Definitive large resection specimens (i.e., uterus, etc.) do best if opened promptly after resection, in the Pathology Laboratory, then allowed to fix. Specimens received in late afternoon will often require overnight fixation resulting in an added 24 hours to the turnaround.

Specimen Fixation:

1. Specimens from **small biopsies** are to be placed immediately in 10% formalin solution.
 - a. Use approximately 10-20 times as much formalin solution as the bulk of the tissue. Small tissues (i.e., endometrial biopsy, endocervical curettings, cervical biopsy, etc...) can be ruined very quickly by placing in saline or allowing to dry.
2. Larger specimens may be placed in formalin if no special tests are requested.
 - a. Tissue fixed in formalin **cannot** be used or is less than optimal for bacteriological culture, electron microscopy, and certain types of histochemistry or frozen sections.
3. All specimens must be placed in the Pathology Laboratory refrigerator as soon as possible after procedure.

Specimen Transport:

1. All specimens should be sent to the Pathology Laboratory as soon as conveniently possible in order to expedite the processing which leads to the eventual microscopic diagnosis.
2. Tissue in 10% formalin may be stored if necessary, but fresh specimens must be sent immediately to the Pathology Laboratory. Refrigerate all specimens if after hours.
3. When no one is in the Pathology Laboratory (i.e., weekends, holidays, evenings), tissue specimens should be logged into the pathology transport log book and refrigerated at a designated pathology transport location.

Causes for Delay in Specimen Processing:

1. Incomplete patient information/history,
2. Unlabeled / mislabeled specimen container,
3. No requisition form
4. Missing attending physician name

Turnaround Time

1. 2-4 working days; tissue requiring decalcification, special stains, or prior fixation may affect turnaround.

Contact Information

Sloane (OB/GYN) Pathology
P&S16-402
(212) 305-3531
Mon-Fri, 8:30 AM - 5:00 PM

Synonyms

Biopsy; Hematopathology; Histopathology; Microscopic Section; Neuropathology; OB/GYN Pathology; Pathologic Examination; Pathology; Surgical Pathology; Tissue Examination; Tissue Pathology

PLACENTA TISSUE EXAMINATION

Applies To:

1. If abnormalities are noted or if a clinician requests, placental tissue is submitted to pathology so that samples are taken, slides are prepared and examined by a pathologist and gross and microscopic diagnoses are reported.

Pathologic Examination Includes:

1. Gross and microscopic examination and/or diagnosis

Specimen Collection Instructions:

1. Placental tissue should be placed in an appropriate sized container labeled with the patient's name, unit number, date, and type of specimen.
2. Placental tissue should be sent fresh and chilled if bacterial, viral, or *Chlamydia* cultures or special procedures are requested.

Specimen Submission Instructions:

1. Only accepted with complete clinical information (mother's age, LMP, EDC, birth weight, clinical problems).
2. The specimen must be accompanied by a OB/GYN Requisition containing complete clinical information (mother's age, LMP, EDC, birth weight, clinical problems). Information regarding the type of specimen, admitting diagnosis and infectious diseases suspected should also be written on the requisition.
3. Special handling requirements (isolation) should be clearly noted on the requisition.
4. Contact the pathologist if urgent report is needed.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

Specimen Fixation:

1. Placental tissue should be sent fresh and chilled **if** bacterial, viral, or *Chlamydia* cultures or special procedures are requested.
2. If available, placental tissue may be placed in formalin.

Specimen Transport:

1. Place specimen in pathology refrigerator to be picked up by pathology transporter.

Causes for Delay in Specimen Processing:

1. Inadequate clinical information
2. Unlabeled/mislabeled container and/or requisition.

Turnaround Time

1. 2 weeks

Contact Information

Sloane (OB/GYN) Pathology
P&S16-402
(212) 305-3531
Mon-Fri, 8:30 AM - 5:00 PM

Synonyms

Placental Tissue Examination

RADIOACTIVE SPECIMENS

Applies To:

1. Safe handling and pathologic examination of technetium-99M labeled specimens.

Pathologic Examination Includes:

1. Routine gross/histologic/microscopic examination with H & E stain unless otherwise specified

Specimen Collection Instructions:

1. Universal Precautions protect laboratory personnel from exceeding permissible exposure levels. Monitoring has shown that containers never exceed 1 mCi^{99m}Tc (records are on file in the Nuclear Medicine Department). Specimens (i.e. SLNs or parathyroids) have such low amounts of radioactive^{99m}Tc that they are exempt from New York City Department of Health Under ART 175 handling requirements. Consequently, these Specimens do not require radioactive labeling and, after the usual fixation, may proceed directly to the histology laboratory for routine processing.

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

Specimen Submission Instructions:

1. The Code of Federal Regulations and the New York City Department of Health regulations state that containers of licensed radioactive materials must be labeled "Caution - Radioactive Material". But labeling is not required for containers holding less than 1 mCi ^{99m}Tc or if containers are accessed only by authorized individuals, provided that the contents are identified by a readily available written record.
2. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy).
 - a. The requisition slip that accompanies the tissue must indicate the nature of the specimen (for example: sentinel lymph node after technetium injection) and include the date and time of surgery.
3. Infectious diseases suspected and special stains requested should be specified.
4. Special handling requirements (isolation) should be clearly noted on the requisition.

Specimen Fixation:

1. If no special studies are desired, the specimen may be placed in formalin if available (the ratio MUST be as follows: 1 part specimen to 10 parts formalin).
2. If formalin is not available and the specimen is a biopsy specimen or small specimen, place the specimen on a saline soaked gauze.
3. If formalin is not available, immediately deliver the specimen to pathology or place the specimen in a refrigerator in a pathology pick-up location.

Specimen Transport:

1. Specimen should be delivered to pathology immediately after procedure or placed in a refrigerator at one of the pathology pick-up locations.

Causes for Delay in Specimen Processing:

1. Unlabeled/Mislabeled specimen bag/container
2. Requisition form not properly filled out
3. Requisition form not accompanying specimen

Turnaround Time

1. 3-4 working days after receipt of specimen (post gross and microscopic review)

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769

RENAL BIOPSY

Applies To:

1. Renal biopsy - Evaluate medical renal diseases (involving glomeruli, tubules, interstitium and/or blood vessels).

Pathologic Examination Includes:

1. Light microscopy including H & E stain, PAS stain, trichrome stain, Jones methenamine silver stain.
2. Immunofluorescence and electron microscopy are complementary and routinely performed for all medical renal diseases of the kidney.

Specimen Collection Instructions:

1. Call the laboratory (305-7460) 1 hour prior to performing the biopsy.
2. The container (a petri dish with filter paper moistened with normal saline) is supplied by laboratory prior to the procedure.
3. The specimen should consist of fresh kidney tissue (two core biopsies or a wedge biopsy) with no added fixative placed in a Petri dish on filter paper moistened with normal saline and handed to a representative of the laboratory.
4. Delay in getting tissue into fixative can cause drying/autolysis and impair biopsy interpretation.

Special Submission Instructions:

1. Information regarding type of specimen, admitting diagnosis, and pertinent clinical history (i.e., age, sex, race, presenting clinical features, serum creatinine, urinalysis, urine protein excretion, serologies, past medical history, medication history, and pertinent radiographic findings) is essential to interpretation and should be noted on the Anatomic Pathology Requisition Form.
2. Special handling requirements (isolation) should clearly be noted on the requisition.

Specimen Transport

1. Deliver immediately to the Pathology Laboratory.
2. Place specimen in refrigerator for brief storage if a delay in transport is anticipated.

Causes for Delay in Specimen Processing:

1. Specimen placed in inappropriate fixative.
2. Delivery is delayed or specimen is allowed to dry.
3. If gross examination or light microscopy reveals tissue not to be renal cortex, the immunofluorescence and electron microscopy may be omitted, depending upon the case.

Turnaround Time

1. 24 hours for light microscopy and immunofluorescence; approximately 7-10 days for electron microscopy

Contact Information

Renal Pathology Laboratory
VC14, Room 224
Mon-Fri, 9 AM - 5 PM
(212) 305-7460

Synonyms Kidney Biopsy

Folder Name: Anatomic Pathology\Accessioning and
Grossroom

RUSH (SAME DAY / NEXT DAY) SPECIMENS

Applies To:

1. Tissue removed during a surgical procedure for immediate/permanent anatomic pathology evaluation due to clinical indications.

Pathologic Examination Includes:

1. Routine gross and microscopic examination with H & E stain, unless otherwise specified

Specimen Submission Instructions:

1. Place the specimen in an appropriate sized specimen container.
2. Label the specimen container with the patient's name, unit number, date, and type of specimen.
3. The specimen must be accompanied by an Anatomic Pathology Form containing information regarding the type of specimen, admitting diagnosis, pertinent clinical history (i.e., age, clinical impression, past diagnosis, tumor location, radiographic findings, and history of radiation or chemotherapy) and infectious diseases suspected.
4. Special handling requirements (isolation) should be clearly noted on the requisition.
5. RUSH SPECIMEN **MUST** be written on the requisition form.
6. Please Note Limitations:
 - a. Bone or heavily calcified tissue cannot be submitted for Same Day evaluation.
 - b. Tissues dominated by fat are technically difficult to cut and may not be amenable to Same Day evaluation

Specimen Fixation:

1. If no special studies are desired, the specimen may be placed in formalin if available (the ratio **MUST** be as follows: 1 part specimen to 10 parts formalin).
2. If formalin is not available and the specimen is a biopsy specimen or small specimen, place the specimen on a saline soaked gauze.

Specimen Transport:

1. Specimen for **SAME DAY** evaluation **MUST BE HAND-DELIVERED** to pathology immediately after procedure before 11 AM.
 - a. Specimens received after 11 AM for SAME DAY evaluation will have to be arranged with the pathologist.

Causes for Delay in Specimen Processing:

1. Unlabeled/Mislabeled specimen bag/container
2. Requisition form not properly filled out
3. Requisition form not accompanying specimen

Turnaround Time

1. Late afternoon / early evening of day specimen submitted for same day rush specimens.

Folder Name: Anatomic Pathology\Accessioning and Grossroom

2. Late morning / early afternoon of day following day specimen was submitted for next day rush specimens.

Contact Information

Surgical Pathology
VC14 - 241
Mon-Fri, 8:00 AM - 5:30 PM
(212) 305-2769