

# SPECIMEN COLLECTION MANUAL

**PATHOLOGY ASSOCIATES, P.C.**

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## I. GENERAL INFORMATION:

### 1. Labeling the Specimen Container:

*Correct identification of the specimen is essential.* Proper identification should be securely fastened on the specimen container and should include at least two patient specific identifiers\*:

1. Patient name\*.
2. Medical Record Number\* or Account Number\*
3. Date obtained.
4. Referring physician's name.
5. Specimen Source\* - The label should indicate the source of the specimen or should be marked with an identifying letter (A, B, C, ...) or number (#1, #2, #3, ...).

This identifying information should match the information on the specimen requisition form.

### 2. Completing the Specimen Examination Request Form:

A specimen request form must accompany all specimens submitted. Patient demographic and billing information must be complete, accurate, and legible. A properly completed request form should include the following:

1. Patient Name
2. Patient Social Security Number
3. Date of Birth
4. Gender
5. Patient Phone Number
6. Responsible Party name
7. Insured/Responsible Party Address
8. Mark Relationship Box
9. Medicare/Medicaid Number
10. Insurance Name and Address (other than Medicare/Medicaid)
11. Insurance Contract Number, Group Number
12. Secondary Insurance Name and Address
13. Secondary Contract Number, Group Number
14. Insured Social Security Number (if not the patient)
15. Employer Name/Phone Number
16. Record Collection Date/Time
17. Obtain Patient Release Authorization
  - A. Complete test request area:
    - A1 Source of Specimen

- A2 Patient Clinical History  
Clinical Diagnosis/ICD10 codes. (Frozen section diagnosis when applicable).  
Signs and Symptoms  
Patient History/Remarks

B. Attach a legible copy of insurance card if available.

**\*All identifying information on the specimen request form must match that on the specimen container.**

**\*\* In order to assure quality patient care, specimens received unlabeled, mislabeled, or submitted without a request form will be returned to the client for verification which may result in a delay in testing.**

### 3. Specimen Delivery to the Laboratory:

Specimen and accompanying requisition should be placed in a biohazard bag and sealed (be sure to tighten caps and seal bags securely). Specimens should then be placed in the area designated for pick-up so that the courier can transport the specimen to the pathology laboratory in a timely fashion. Specimen pick-ups are normally made at regular intervals, but special pick-ups can be made.

- If a frozen section is requested this should be indicated. Please contact Pathology Associates so that the specimen can be transported to the laboratory and a frozen section performed.
- If a pathology report is requested RUSH, a report will be telephoned to the physician the next morning (except for Sundays and Holidays). Please mark the specimen RUSH. The specimen must arrive in the pathology laboratory the same day to allow for overnight processing. Please contact Pathology Associates for specimen transport if a RUSH is requested after the courier has made the last pick-up of the day. On Call Physician name and call back information **must be** denoted on STAT request form.

Please contact Pathology Associates if special transportation to the laboratory is needed such as:

1. If special handling of a specimen is needed.
2. If an unscheduled specimen pick-up is needed.
3. If a specimen needs to be transported immediately following a scheduled surgical procedure.

### 4. Reporting of Results:

On routine / uncomplicated cases, frozen section results are phoned to the requesting physician by our pathologist, usually within 20 minutes (or less) of receiving the specimen .

Written reports are delivered within 24-48 hours after receiving specimen, unless the completing of the case requires additional work-up. If you have a special need for faster service on a special

case, indicate RUSH on the request. Our pathologists are always available to discuss cases with the referring physician.

Autopsy Results: The provisional anatomic diagnosis (PAD) is signed out within 2 working days. Final autopsy reports are usually available in approximately 30 working days.

Pathology Associates communicates results to clients by several means which include printed reports, autofaxed results, web-enabled electronic results, direct interfaces, and access to our Client Services department for verbal results.

Pathology Associates complies with state laws by reporting state-defined reportable diseases and conditions to the state department of health. These reports include patient demographic information and results as required by state regulations.

If there is a problem with courier delivery of written reports, please contact us at 256-533-1480.

#### 5. Supplies:

Requests for supplies can be made by calling 256-533-1480 or via the website [www.pathologyassociates.net](http://www.pathologyassociates.net). For your convenience, the following supplies can be obtained: specimen containers (with and without fixative), special transport tubes and media, transport bags, slide containers and request forms.

## II. TISSUE / SURGICAL PATHOLOGY SPECIMENS:

### 1. Fixation:

All tissue specimens should be presumed to be infectious and universal safety precautions should be followed in handling all specimens.

All tissue specimens, except those submitted for frozen section or special studies, should be placed in fixative. In most cases this will be 10% formalin. The amount of fixative should be adequate, and the specimen should be placed in a large enough container to completely cover the specimen with fixative. Refer to Section 2 for specific instructions on specimens requiring special handling.

If a frozen section is requested, the specimen **must not** be placed in fixative, but must be delivered promptly to the laboratory. Any biopsy submitted for frozen section should be placed on ice if any delay in reaching the laboratory is anticipated.

If a fine needle aspirate is requested, refer to Cytopathology Section.

## 2. Alphabetical List of Specimens Requiring Special Handling

### BIOCHEMICAL STUDIES:

Fixation: None.

Special instructions: If biochemical studies are requested, a sterile sample of the fluid or tissue should be put into a special transport tube. These transport tubes can be obtained from Pathology Associates. Please call Pathology Associates at least 48 hours in advance of the procedure to allow us time to deliver the transport tubes. If time does not allow for prior notification, place the biopsy or other tissue specimen, such as products of conception, into a sterile container with sterile saline or cell culture medium to keep it moist. The best results are obtained if the biochemical studies are started the same day as the tissue is obtained. If a delay is necessary, refrigerate the specimen until it can be transported.

### BONE MARROW - BIOPSY OR PARTICLE PREPARATION:

Fixation: Formalin fixative and air dried smears.

Special instructions: Air dried smears (no fixative) should be made from the bone marrow aspirate. Air dried touch preparation smears of the bone marrow biopsy should be made prior to placing the biopsy into formalin fixative. The marrow particles should be collected in a heparinized syringe to prevent clotting, and the blood should be filtered from the marrow particles prior to placing the particles into formalin fixative.

If bone marrow cultures are requested, a sterile sample of the marrow aspirate (approximately 2-3 ml) should be collected for culture on the appropriate media.

If cell marker (immunophenotype) studies are requested, a sterile sample of the marrow aspirate should be put into 1 ACD solution A anticoagulated tube (yellow stopper). Store and transport at room temperature.

If chromosome analysis is requested, a sterile sample of the marrow aspirate (approximately 3-4 ml) should be put into a lavender (EDTA) tube. These transport tubes can be obtained from Pathology Associates. Please call Pathology Associates at least 48 hours in advance of the procedure to allow us time to deliver the transport tubes.

### CELL MARKER STUDIES (IMMUNOPHENOTYPE):

Fixation: None.

Special instructions:

- A) For effusions, immediately following collection, add 10 units of injectable sodium heparin for each milliliter of fluid collected. Store and transport at room temperature.
- B) For peripheral blood, submit 2 ACD solution A anticoagulated tubes (yellow stopper), and 1 EDTA anticoagulated tube (lavender stopper). Store and transport at room temperature.

- C) For bone marrow, submit 1 ACD solution A anticoagulated tube (yellow stopper). Store and transport at room temperature.

#### CHROMOSOME ANALYSIS:

Fixation: None.

Special instructions: If chromosome analysis is requested, a sterile sample of the fluid or tissue should be put into a special transport tube. These transport tubes can be obtained from Pathology Associates. Please call Pathology Associates at least 48 hours in advance of the procedure to allow us time to deliver the transport tubes. If time does not allow for prior notification, place the biopsy or other tissue specimen, such as products of conception, into a sterile container with sterile saline or cell culture medium to keep it moist. The best results are obtained if the analysis is started the same day as the tissue is obtained. If a delay is necessary, refrigerate the specimen until it can be transported.

#### CULTURES - BACTERIAL, FUNGAL, VIRAL:

Fixation: None.

Special instructions: Collect a pea sized (3-5 mm) portion of tissue and submit in a sterile container. Call Pathology Associates to request a pickup.

#### CYTOGENETIC TESTING:

Fixation: None.

In the unfortunate event of incomplete abortion or late term fetal demise tissue should be obtained in all cases for cytogenetic testing. The best specimen for such is chorionic villi from the placenta. If such is not available, tissue from the fetus of either internal organ or skin should be obtained under sterile conditions and placed in Hank's media (or other transport media designated by the Laboratory). **DO NOT PLACE TISSUE IN FORMALIN.** This, accompanied by the appropriate requisition form, should be sent to the Laboratory for "Cytogenetics" ("Chromosome analysis") testing.

#### FROZEN SECTION:

Fixation: None.

Special instructions: Send fresh specimen to Pathology Associates immediately. The specimen should be sent in an airtight container to prevent drying. Any biopsy specimens that may be delayed should be sent on ice.

#### HUMAN PAPILLOMAVIRUS (HPV) DETECTION:

Fixation: Performed on paraffin embedded tissue.

## IMMUNOFLUORESCENCE (IF):

Fixation: Immunofluorescence (IF) fixative (Michel's fixative).

Special instructions: If immunofluorescence studies are needed on a biopsy, a portion of the biopsy tissue should be put into IF fixative (Michel's Solution). IF fixative can be obtained from Pathology Associates. Please call Pathology Associates at least 48 hours in advance of the biopsy to allow us time to delivery the IF fixative. If a delay is necessary, refrigerate the specimen until it can be transported. **DO NOT** place in formalin.

## LIVER TISSUE FOR QUANTITATIVE IRON:

Fixation: Submit in 10% formalin or a sterile container with sterile saline

Special Instructions: Specimen requires 0.5 mm x 5.0 mm from a needle biopsy of the liver. A larger section is needed from a wedge biopsy.

## LYMPH NODE:

Fixation: B+ fixative and 10% formalin.

Special instructions: The lymph node should be delivered fresh to Pathology Associates immediately after being obtained for processing by a pathologist. Keep it moist with a small amount of sterile saline.

If the node must be processed on-site, the following procedure should be followed:

The goal is to put adequately sized pieces of the lymph node into several different fixatives to allow for a complete study of the node. This is easy for a large node, but may be somewhat difficult for a small node. Touch preparations are made and then pieces of the node are put into fixative for Light Microscopy (LM), and 10% formalin, also for LM.

- a. Slice open the node along its short axis to expose the center, and make several touch preparations of the node. This is done by gently pressing the cut surface of the node once with the flat surface of a glass slide. Make 4-6 touch preparation slides and let the slides air dry (no fixative). Slides must be labeled with the patient's name and DOB.
- b. Take a slice of the node (at least 15x15x5 mm or larger depending on the size of the node) and put into B-5 fixative for LM.
- c. Put the remainder of the node into 10% formalin for LM. Place approximately 0.5 gms. of tissue in RPM1 transport media (obtain from Pathology Associates). **Please allow 48 hours for delivery of media.**

## MUSCLE BIOPSY:

Fixation: None, submit fresh wrapped in saline moistened gauze

Special instructions: Please call Pathology Associates at least 48 hours in advance to advise us of an impending muscle biopsy. The minimum muscle biopsy size should be 2 cm long by 1 cm in diameter. The muscle should be kept at its isotonic length in a muscle clamp or tied to a wooden tongue blade.

The clamped specimen should be wrapped in saline moistened gauze and put into an airtight container to keep the specimen moist (do not immerse in saline). Denote clamp time on the requisition. The specimen should be submitted fresh to Pathology Associates as soon as possible. A clinical diagnosis and brief history, including EMG findings, CPK levels, etc. must accompany the specimen.

STONE (CALCULUS) - BLADDER, KIDNEY, URETER, GALLSTONE, ETC.:

Fixation: None.

Special instructions: Fixation is not necessary if no tissue is attached to or submitted with the stone.

### III. NON-GYNECOLOGICAL CYTOLOGY:

Proper collection techniques and immediate specimen processing are essential for optimal results.

#### 1. Fixation:

All fluid and urine specimens should be submitted in a clean container without fixation. If a delay in specimen transport is anticipated, the specimen should be refrigerated. This will maintain cell viability for up to 48-72 hours.

While a fresh specimen is preferable, in some situations, addition of liquid cytology fixative (Cytolyte) is acceptable. In this case the specimen should be combined with an equal volume of fixative. 50% ethyl alcohol is an acceptable fixative if Cytolyte is not available.

All non-gyn smeared slides should be submitted as follows: Half sprayed with cytology fixative and half air dried. All slides should be labeled with the complete patient name, date of birth, "F" for fixed or "AD" for air-dried.

**Caution:** Cytology fixative may be fatal or cause blindness if taken internally. Wash hands thoroughly after handling. Do not get into the eyes, on skin, or on clothing. If contact should occur, immediately flush with copious amounts of water. If swallowed, obtain medical attention immediately.

#### 2. List of Specimens:

##### BODY CAVITY FLUIDS ( PERITONEAL,PLEURAL,ETC):

Fixation: None.

Special instructions: To keep fluid uniformly suspended, 3-5 IU of heparin per ml of fluid should be added. Mix well before specimen transport.

##### BREAST SMEAR (BREAST OR NIPPLE SECRETIONS):

Gently massage subareolar area and nipple with thumb and forefinger. When secretion occurs, allow only a pea-sized (3-5 mm) drop to accumulate. Touch a clean slide to the nipple and withdraw slide quickly. Using a second glass slide, smear the fluid between the two slides. Immediately spray one slide with cytology fixative and allow the other to air dry. Repeat procedure until all secretions from nipple are collected on two or more slides.

## BRUSHINGS (BRONCHIAL,BILE DUCT,PANCREATIC DUCT,ETC.):

Brushings are obtained by inserting a small brush through the scope and brushing the desired area. Slides are prepared by gently swirling brush onto two to four slides. Using a small area of the slide prevents drying artifact. Fix half of the slides with cytology fixative and allow the other half to air dry. Place the brush into a separate container with liquid cytology fixative.

## BRONCHIAL WASHINGS:

Fixation: None.

Special Instructions: None.

## CEREBROSPINAL FLUID (CSF):

Fixation: None.

Special Instructions: As large a volume as possible should be collected, at least 3 to 5 ml.

## CYST ASPIRATION:

Fixation: None.

Special Instructions:

Following aspiration express cyst contents into clean container.

## FINE NEEDLE ASPIRATION:

A 25 or 22-gauge needle is attached to 10-ml syringe. The lesion is aspirated by means of inserting the needle into the mass, and the plunger of the syringe is retracted to create a negative pressure. The needle is moved back and forth in the lesion. Negative pressure is released in the syringe and the needle is withdrawn. During aspiration the majority of the specimen should remain in the needle with only a small "flash" observed in the hub. Specimen or blood (with the exception of cyst aspiration) withdrawn all the way into the syringe is not desirable. The specimen is then expressed from the needle in one of two ways:

## 1. Fine Needle Aspiration Slide Preparation

### Supplies

Glass Slides

Slide folder

Requisition Form

95% ethanol (or spray cytology fixative)

Pencil ( do not use pen or Sharpie on slides)

Cytolyte fixative

Hank's solution (for specimens requiring flow cytometry)

### Procedure

- Label each individual slide with the patient's name and date of birth(pencil only) and place in slide folder. Label Cytolyte fixative bottle with the patient's name.
- The performing physician will collect the aspirate and place a drop of fluid on each slide. Gently place another glass slide on top of the drop and pull slides apart so as to smear the fluid on each slide. Approximately one-half of the slides should be fixed by placing them in 95% ethanol (or spraying with cytology fixative). It is imperative that slides be placed *immediately* into the fixative after each individual slide is spread rather than waiting until all smears are made. The other half of the slides should be air dried.
- After 5 minutes of fixation, remove slides from 95% ethanol. Label all the slides as either "F"fixed or "AD" air dried, and place in the folder for transport.
- After the radiologist has completed the aspiration, rinse the needle 2-3 times in Cytolyte fixative.
- Complete the Requisition Form including the site of aspiration and clinical history. Secure the slide folder with rubber bands. Place the Cytolyte bottle and request form in a specimen bag and transport all to Pathology Associates.

### Reference

Richard Demay. The Art and Science of Cytopathology. ASCP Press. 1996.

## 2. Cytology Fixative Only

The other approach is to simply irrigate the syringe and needle with cytology fixative following the needle aspirate. Slides are not directly prepared. The aspirated material is placed directly into cytology fixative by washing and irrigating the syringe with cytology fixative solution.

#### GASTRIC WASHING:

Fixation: None.

Special Instructions: Washings should be obtained from a clean (food and debris free) stomach. (Gastric aspirations usually produce unsatisfactory cytologic specimens.) The stomach should be washed with 200 ml to 300 ml cold saline. A French Levine tube is passed into the stomach. The saline is then aspirated and reinjected several times to produce a vigorous flushing action against the gastric mucosa. As much of the original volume of saline solution as possible should be aspirated, kept in an ice bath and submitted to the laboratory immediately.

#### SKIN LESIONS:

Scrape the lesion with the end of a glass slide and smear specimen onto two to four additional glass slides. Spray half of the slides with cytology fixative and allow the other half to air dry.

#### SPUTUM:

Fixation: None.

Special Instructions: Optimal specimens (those containing alveolar macrophages and bronchial epithelium) are best obtained from deep coughing that may be assisted by saline aerosol and early morning collection.

#### URINE/BLADDER WASHINGS:

Fixation: None.

Special Instructions: Designate whether specimen is a voided urine or bladder washing.

#### IV. AUTOPSY PROCEDURES:

1. Call Pathology Associates to see if PA will accept the case. Autopsy will not be performed on anyone weighing more than 300 pounds.
2. An autopsy will not be performed until the authorization form is complete and all signatures have been obtained. The legal next of kin must give consent for the autopsy. For an adult the following order should be observed:
  - 1) Spouse
  - 2) Adult children (must be 19 years of age or older)
  - 3) Parents
  - 4) Siblings
  - 5) If non of the above are living, the “next of kin” should be determined on a case by case basis or other individuals authorized by law to dispose of the body.

For a child, parent or legal guardian only should give consent.

In exceptional circumstances, when it is impossible to obtain written consent, it may be permissible to obtain consent for an autopsy over the phone, however, there must be two witnesses. If a family member, of the same rank, is opposed to the autopsy, then it should not be performed.

3. Please note that the next of kin must accept a charge for the autopsy to be done. The current charge can be obtained by calling Pathology Associates.
4. Notify Pathology Associates as soon as authorization has been obtained for an autopsy. The Pathology office (533-1480) is staffed daily from 8:00AM to 5:30PM. After hours and on weekends contact the HH Lab Supervisor at 265-8048.
5. All drains, tubes, IVs, and catheters are left in place. Casts are removed at the discretion of the pathologist.
6. If Pathology Associates agrees to do the autopsy, the body must be transported to the Huntsville Hospital morgue at the next of kin's expense. The patient must be properly identified with at least two forms of identification. The autopsy permit, any available chart, and papers for disposition of the body must be received by Pathology Associates before the case will begin. These may accompany the body to the Huntsville Hospital Morgue. All personal effects are documented and given to the Huntsville Hospital Security department.
7. The autopsy will be done the same day if the body and all appropriate paperwork and identification are delivered to the Huntsville Hospital morgue by 4 p.m. After 4 p.m. the autopsy will be done the next day.