

Histology & Cytology Specimen Collections

Histology

Surgical Specimens:

- Deterioration produces loss of cellular detail which is needed for accurate diagnosis. This takes place through the following:
 - Drying
 - Chemical decomposition
 - Thermal injury
 - Decomposition is sped up by heat and slowed by cold
- Proper specimen labeling, and identification are imperative for processing.
- Pertinent clinical data must be provided by the attending physician to provide a complete and accurate diagnosis.
- Surgical specimens should be in the laboratory Monday through Friday by 1300. Specimens arriving later may be processed if the pathologist is notified.

Specimen Collection:

- Ten percent formalin is provided by Histology Laboratory. Please do not use anything other than 10% formalin unless otherwise advised by physician or special procedure.
 - Surgical tissue and biopsy collection:
 - Specimen is placed in container with 10% formalin immediately, unless surgeon requests otherwise.
 - Formalin should be used at 5 times the volume of the specimen.
 - Use appropriate size container. There are many sizes to choose from. These may be obtained through Central Supply or the laboratory.
 - Multiple specimens from 1 procedure must be put in separate containers and labeled appropriately. Only 1 (2-part) Histology requisition/Epic order form needs to accompany all specimens. Identify each specimen on the specimen container. If possible, place all specimens from 1 case into 1 biohazard bag.
 - Proper labeling is essential. Please label container directly with patient's full name, date of birth and medical record number. The container also needs to have the date and time of procedure, source of specimen, and physician. Pertinent insurance information is also required.
 - Histology requisition/Epic order form must be filled out completely.
 - All specimens must be biohazard bagged. Bags are provided by the laboratory. Please make sure container is tightly sealed. Do not put requisition together with specimen. Either tape the requisition to outside of bag or in outside compartment of bag and place specimen inside. Make sure the bag is sealed closed.
 - Frozen sections: All frozen sections should be scheduled with Pathology at 603-598-3323 extension 6-7250. A pathologist is on call at all times, in the event of an unscheduled frozen section. If the section is not scheduled, time must be allowed for locating the pathologist in the event he/she is not in the hospital at that time.
 - Place tissue for frozen section on a moistened saline towel and give to the pathologist. Do not put specimen in fixative of any kind. Have all necessary paperwork complete and with the specimen.
 - Call Pathology Laboratory and tell the secretary the case, the surgeon requesting the frozen section, and operating room number.
 - The pathologist will write his/her findings on the form and give to the surgeon. The signed copy will be placed in the patient's chart. The tissue will be sent to Histology Laboratory for permanent sections.
 - Urinary tract calculi (kidney, bladder, and ureteral stones): Chemical analysis of urinary tract stones is helpful in determining future management of the patient. Different stone types respond differently to dietary and drug treatment, so knowing the chemical composition may be clinically relevant.
 - Place calculi in a dry container. Cover tightly. Do not add formalin.
 - Label container with patient's full name, date of birth, medical record number, date of collection, time of collection, stone type if known, and physician. Place specimen in biohazard bag.
 - Complete a Histology requisition/Epic form. Attach to outside of biohazard bag or put into outside pocket.

- Foreign bodies (fragment of glass, metal, splinters, etc.): The surgeon makes the decision to send foreign bodies to Pathology Laboratory.
 - Place foreign body in a dry container. It is not necessary to add 10% formalin; however, formalin is acceptable.
 - Label container with patient's full name, date of birth, medical record number, time of collection, date of collection, type of foreign body, and ordering physician. Place specimen in biohazard bag.
 - Complete a Histology requisition/Epic order form and attach to outside of biohazard bag. Send to Histology Laboratory.
- Bone marrow: The specimen requirement is a bone marrow aspirate in an EDTA tube, a biopsy in 10% formalin, a minimum of 4 smears, and 2 peripheral blood smears.
 - All specimens delivered to the laboratory must be labeled with patient's full name, date of birth, medical record number, date of collection, time of collection, and site of aspiration/ biopsy (left or right iliac). Specimen must be received in the laboratory within 1 hour of aspiration.
 - Complete a Histology requisition form and attach to outside of biohazard bag.
 - Specimens may be submitted at any time, but the test is set up Monday through Friday.
- Cytology specimen collection: The purpose in the collection of cytology specimens is to facilitate the processing, diagnosis, and accuracy of the detection of tumor cells in fluids.
 - Fill out a Histology requisition/Epic form for each cytology specimen that is sent to Histology Laboratory. The laboratory cannot accept any specimen without a completed form.
 - If the cytology specimen is fluid (i.e., urine or sputum), 50% ethanol or Saccomanno may be added in equal volumes. Please note on the label the "preservative added."
 - Label cytology container with patient's full name, date of birth, medical record number, date of collection, time of collection, type of specimen, and physician. Place specimen in biohazard bag and attach requisition to outside of biohazard bag.
 - The histology laboratory will accept specimens Monday through Friday 0600 to 1530.
 - All cytology specimens delivered to the laboratory between 1530 and 0600 hours, Monday through Friday, weekends, and holidays are to be left in the refrigerator in micro in the Histology specimen bin. The Histology Department will be locked during these times. A medical technologist will process accordingly.

Cytology

Aspirations-Breast, Cysts, etc.:

- Aspirations that are viscid in nature are smeared directly onto a clean, frosted glass slide. Label with patient's full name and date of birth, and then spray fix. Aspirations that are mostly fluid should be sent to Histology Laboratory where they will be centrifuged, and a smear can be made from the sediment.
- Please remember to place specimen on frosted side of slide or else it cannot be read.
- Place slide(s) into a cardboard slide holder and biohazard bag. Complete a Histology requisition/Epic form and attach it to outside of biohazard bag.
- Test is typically set up Monday through Friday 0600-1430 hours

Body Fluids:

- Fresh body fluids are the specimen of choice. Some specimens can be sent to the laboratory in the original container in which they were collected (pleural, thoracentesis, etc.) Others should be put in a clean, dry container. Do not add any type of fixative to the container.
- Label container with patient's full name, date of birth, medical record number, date of collection, time of collection, type of specimen, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition/Epic form and attach it to outside of the biohazard bag. Deliver promptly to the main lab. **Note:** Specimens collected at Milford Medical Center are immediately forwarded to St. Joseph Hospital for analysis.
- Test is typically set up Monday through Friday 0600-1430.

Empty Cradle Specimens:

- Any specimen or material collected in the emergency room, delivery room, or operating room for products of conception, D & C, etc. are sent to Pathology routinely with formalin added.
- Label specimen with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician.
- Any specimen 12-18 weeks requires proper paperwork signed by the patient for cremation/disposal by the funeral home. The respective areas where the procedure is done will provide this paperwork. Pathology Laboratory and bereavement supplies forms.
- If the specimen is under 12 weeks, it no longer needs to be cremated and can be disposed of as medical waste.

Fine Needle Aspiration Biopsy:

- It is the policy of Histology Laboratory that the Computed Axial Tomography scan or ultrasound technician and a radiologist are at the bedside for preparation of specimens from invasive diagnosis image procedures.
- All specimens are brought to Histology Laboratory for processing. Specimens are processed immediately so the pathologist can give a preliminary observation that there are cells present or not. The radiologist may require a number of passes to be processed. When the procedure is completed to the specification of the radiologist, all slides are made permanent. Biopsy and cytology fluid are processed in the regular way.
- Notify Histology Laboratory at 603-598-3323 at least 2 hours prior to procedure.
- The radiologist should make approximately 3 to 6 slides labeled (in pencil) with patient's last name and if specimen from tissue, if needed. It should be placed in a small, prefilled container filled with 10% formalin. If specimen is fluid, place fluid in a sterile test tube. Specimen should be in Saccomanno fluid if not tested immediately.
- If the radiologist requests a number of passes to be performed, each pass must be done individually and resulted before next pass will be made.
- The radiologist or radiology technician should complete a Histology requisition/Epic order form and label slides. Deliver to Histology Laboratory immediately for processing.
- If cultures and sensitivities or Gram stain are needed, have the secretary enter into the LabPlus system. Bring specimen into Central Processing and bring to the immediate attention of a technologist.
- If the radiologist wants another pass stained, the histologist will continue to stain and do cytopins until the radiologist is satisfied that cells have been identified. Staining is done with Hema-3. These procedures are found in the special stain manual either by the sink or in the bookcase.
- Any specimen for Histology must have a handwritten requisition/Epic order form with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, physician, and location/ operating room number.

Gastric and Esophageal Brushings:

- Write patient's full name and date of birth on frosted end of a clean, glass slide with a pencil.
- Smear collected material evenly over clean, glass slide. Place slides into a cardboard slide holder.
- Label slide holder with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition form and attach it to outside of biohazard bag. Deliver immediately to Histology Laboratory.
- Test is set up to typically run Monday through Friday (0600-1430).

Gastric and Esophageal Washings:

- Washings should be sent to Histology Laboratory as soon as possible in the fresh state. The specimen should be sent in the container it was collected and Saccomanno fluid may be added in equal volumes to preserve the specimen. Please note this on container and requisition form. In the case of a shared specimen, Microbiology should be notified that Histology also needs the specimen, along with requisition form.
- Label container with patient's full name, date of birth or medical record number, date and time of collection, type of washing, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition form and attach it to outside of biohazard bag. Deliver immediately to Histology Laboratory.
- Test is set up to typically run Monday through Friday (0600-1430).

Gynecological Material:

- Smears are made from material collected from various regions (vaginal, endocervical, and endometrial). Proper specimen collection, preparation, and careful labeling are essential to enhance the accuracy of evaluation of the smear.
- Write patient's full name and date of birth on frosted end of a clean, glass slide with pencil.
- Smear material collected evenly over clean, glass slide. Do not let smear dry before spraying.
- When spray is dry, place slide(s) in a cardboard or plastic slide holder.

- Label slide holder with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition/ Epic order form and attach it to outside of biohazard bag. Deliver to Histology Laboratory.
- All gynecological Paps are sent to a reference laboratory. Please refer to "Cytology" in "Special Instructions" for more information on Paps. Correlation studies are done at St. Joseph Hospital.

Spinal Fluid:

- Spinal fluid for cytology studies must be sent to Histology Laboratory immediately. Spinal fluid should be in a separate tube labeled for cytology. Do not add formalin.
- Label tube with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition/Epic order form and attach it to outside of biohazard bag. Deliver immediately to Histology Laboratory.
- Test is set up to typically run Monday through Friday (0600-1430).

Sputum:

- Sputum should reach the laboratory within 1 hour of expectoration. An early-morning specimen produced by deep coughing is the best material.
- Collect sputum in a clean, dry container. Do not add formalin.
- Label container with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician. Place specimen in biohazard bag.
- Complete a Histology requisition/Epic order form and attach it to outside of biohazard bag. Deliver promptly to Histology Laboratory.

Urine:

- Urine collected for cytology should be sent in the fresh state. It may be preserved with Saccomanno fluid and labeled as "preservative added."
- Label container with patient's full name, date of birth or medical record number, date and time of collection, type of specimen, and physician. Place specimen in biohazard bag.
 - Complete a Histology requisition/ Epic order form and attach it to the outside of the biohazard bag. Deliver to histology.
 - Test is set up to typically run Monday through Friday (0600-1430).