Cytology Specimens

General Considerations:
All specimens must be accompanied by a “Cytology/Pathology Order Sheet” (purple) that has been properly completed (outpatient) or a completed MEDITECH® cytology order category: PATH, procedure: CYTO (inpatient). In order to obtain as complete an evaluation of specimen submitted as possible, every attempt should be made to supply minimal information requested on the “Cytology/Pathology Order Sheet.” Pathologist renders the final diagnosis on cytology, therefore, as much clinical information available should be noted on order sheet.

Unfixed specimens should be submitted to the Histology Laboratory immediately after being obtained. Prompt handling of unfixed material is necessary to prevent degeneration of exfoliated cells. Histology Laboratory hours are 6 a.m. to 4 p.m. Monday through Friday. If a specimen is being obtained outside of operating hours, the specimen needs to be delivered to the Laboratory Specimen Processing area where specimen will be refrigerated until the next working day. Cytology fixative is available from the Histology Department.

Please refer any questions concerning specimen collection or transport to the Histology Department (phone: 724-357-7167) or pathologist.

Specific Considerations:

• Prompt transport of specimens to the Histology Department is essential to insure valid analysis.
• Optimal time for specimen collection is 6 a.m. to 3 p.m. Monday through Friday.
• All specimens sent to Histology must be accompanied by a properly completed “Cytology/Pathology Order Sheet.” If ordered in MEDITECH®, all of this information is requested and must be completed. Information on order sheet becomes part of permanent hospital records and must include:
  — Full name of patient and medical record number
  — Patient’s age and date of birth
  — Sex of patient
  — Attending/ordering physician
  — Date and time of draw
  — Date and time of arrival in the Histology Laboratory
  — Source of specimen (be specific; catheterized urine, cul-de-sac fluid, brushings right upper lobe/ lung, etc.)
  — Any significant clinical history
  — Information on the “Cytology/Pathology Order Sheet” must be consistent with that contained on the specimen label.
• All specimens must be fully identified with patient identification and source.
• Criteria for rejection of unacceptable specimen: Laboratory is required to establish criteria for rejection of specimens. This must be done to insure that valid examination of patient specimens can be performed. Specimens will never be discarded before discussion with requesting physician. Unacceptable specimens that are difficult or impossible to replace will be examined and interpreted as carefully as possible.
• Unacceptable Specimens:
  — Specimens received from an unidentified source
  — Unlabeled specimens
  — Specimen submitted without an order sheet
  — Discrepancy between name and/or source on specimen container and order sheet
  — Specimen not adequately identified on order sheet
  *The physician or nursing station will be notified and a new specimen requested.
• Each cytology must be submitted with a separate “Cytology/Pathology Order Sheet” and/or a MEDITECH® order (CYTO), even if a series of specimens are on the same patient.

Collection of Specimens:

• Sputum
  — Inpatient:
    • Sputum for cytology should be collected in early-morning after rising.
    • Have patient rinse mouth with water.
    • Using a designated collection container, labeled with patient name and source, instruct patient to cough deeply and expectorate coughed-up material into collection container.
    • After specimen is obtained, a cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered immediately to the Histology Department.
Outpatient:

- Outpatient sputum should be collected in the Outpatient Laboratory to assure proper handling and fixation of specimen.
- The specimen along with a properly completed “Cytology/Pathology Order Sheet” (purple) are immediately delivered to Laboratory Processing area.

Bronchial Washings

- Specimen is collected during a bronchoscopy by a physician.
- Specimen container is labeled with patient name and source.
- After specimen is obtained, a cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered immediately to the Histology Department.
- In the event microbiology is requested on the specimen, this should be completed first as to not contaminate specimen.
- After requested work is completed, remainder of specimen is given to Histology for processing.

Urine

- Any random voided specimen can be collected for cytology except for a first-morning specimen. First-morning specimens are not suitable for cytology evaluation.
- Urines from cystoscopy are collected during procedure and should proceed accordingly.
- Collect specimen into a container labeled with patient name and source (voided, catheterized, or cystoscopy).
- After specimen is obtained, a cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered immediately to the Histology Department.

**Note:** Outpatient urine cytology should be voided at outpatient laboratory, not brought from home. Handling and processing is the same as above. Specimen along with a properly completed “Cytology/Pathology Order Sheet” (purple) are delivered to the Laboratory Specimen Processing area.

Pleural, Abdominal and Other Fluids

- Fluid is aspirated into a vacuum collection unit, when possible, with 100 units of heparin added per 100 mL of fluid.
- Small amounts of fluid should be collected directly into a collection unit.
- Specimen is properly labeled with patient name and source.
- A cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered immediately to the Histology Department.
- Outpatient: The specimen, along with a properly completed “Cytology/Pathology Order Sheet” (purple) are delivered immediately to the Laboratory Specimen Processing area.

Spinal Fluid

- Spinal fluid analysis usually involves multiple tests in addition to cytology. A physician collects fresh spinal fluid into a sterile tube. Appropriate orders and request forms are completed and specimen is immediately delivered to laboratory for all testing.

Esophageal, Bronchial and Gastric Brushings

- Prepare frosted-end glass slides with patient’s name and exact site of brushing.
- **Caution:** Use pencil, do not use ink.
- After brushing area, material is rolled onto glass slide and spray-fixed immediately. Brushing material dries very rapidly so this should be done quickly and immediately. Spray-fixative is available from the Histology Department (724-357-7160, extension 7167).
- Place slides into a slide transport container.
- A cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered immediately to the Histology Department.

Tzank, Herpes, Wound, Nipple Discharge and Other Smears

- Prepare frosted end glass slides with patient’s name and exact site of lesion.
- If a nipple discharge, smear secretions directly onto clean prepared slide and spray fix immediately.
- If a smear from a lesion, scrape from base of an ulcer, vesicle, or bulla, and smear onto clean prepared slide. Scraping should be made after lesion is unroofed. Spray fix immediately with cytology fixative. Spray fixative is available from the Histology Department (724-357-7160, extension 7167).
- Place slides into a slide transport container.
- A cytology order (CYTO) is placed in MEDITECH®. Three copies of the MEDITECH® order and specimen are delivered to Histology Department.
- Outpatient: Specimen and a properly completed “Cytology/Pathology Order Sheet” (purple) are delivered to the Histology Department.