

St. Joseph's / Candler Health System	CLINICAL LABORATORY POLICY Title: Guide to Cytology Services	Policy Number: CL-CY014 Effective Date: 09/18/2025 Page 1 of 7
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Policy Statement

It shall be the policy of St. Joseph's/Candler Health System (SJ/C) Laboratories Cytology department to provide guidance for proper collection of specimens.

Specimen Requirements

1. All Cytology specimens must be properly collected and adequately identified.
2. If unsatisfactory specimens are received by the laboratory, the submitting physician will be notified.
3. Specimens are only acceptable if received from authorized sources, i.e. a medical doctor or their designee.

Materials Required for Collection

1. ThinPrep PAP Test

- a. Plastic spatula
- b. Endocervical brush device
- c. Permanent Ink Pen
- d. PreservCyt Solution for use with the ThinPrep Pap Test

2. Brushings: Any site

- a. Small nylon brush used in conjunction with the flexible fiberoptic scope.
- b. CytoLyt Solution (obtainable from the Cytology Department)

3. Body Cavity Fluids

- a. 1 centesis set up
- b. 1 flask or body fluid bag
- c. Heparin (3 units per ml. of anticipated fluid to be collected)

4. Sputum

- a. Screw cap plastic cup.
- b. **NOTE:** If Microbiology studies are also requested, the collection cup must be sterile.

5. Oral Cavity (Direct Scraping of Suspicious Areas and Buccal Smears)

- a. Tongue depressors
- b. Frosted end glass slides labeled with the patient's name
- c. Bottle(s) of 95% alcohol fixative or spray fixative

6. Esophageal Lavage

- a. #16 French gauge plastic Levin tube with additional perforations cut in the terminal 6 cm length of tubing

- b. 100 cc syringe
- c. 500 ml sterile normal saline

7. Brushing Endoscopically Visible Lesions

- a. Fiberoptic endoscope
- b. Small nylon brush for use with endoscope
- c. CytoLyt Solution in 50 ml centrifuge tube (obtainable from the Cytology Department)

8. Bronchoscopy (Aspiration of Observed Secretions and Bronchial Washings)

- a. Respiratory aspirator or catheter
- b. Bronchial specimen trap
- c. Sterile normal saline (Bronch washings only)

9. Bronchoscopy (Direct Smears from Brushings)

- a. Small nylon brush used in conjunction with the flexible fiberoptic bronchoscope
- b. CytoLyt Solution in 50 ml centrifuge tubes (obtainable from the Cytology Department)

10. Bronchoscopy (Bronchoalveolar Lavage)

- a. Fiberoptic bronchoscope with external diameters of 4 to 6 MM
- b. Syringe
- c. Sterile non-bacteriostatic saline

11. Urine

- a. Screw cap plastic cup or centrifuge tube with top.
- b. **NOTE:** If Microbiology studies are also requested, the collection cup must be sterile.

12. Nipple Secretions

- a. Frosted end glass slides labeled with the patient's name
- b. Bottle(s) of 95% alcohol fixative or spray fixative

Specimen Collection Procedures

NOTE: Remove and dispose of all needles before sending specimens to the laboratory. Specimens received with a needle attached will be rejected.

NOTE: Refrigerate the specimen if there will be a delay in transporting to the laboratory.

1. Gynecologic Cytology (Liquid-based PAP Test)

- a. Instruct patient to refrain from sexual activity and douching for a minimum of 24 hours prior to obtaining the sample.
- b. Do not obtain a sample if bleeding associated with the menses is present. Obtaining a sample during the menses often produces suboptimal or unsatisfactory results necessitating a repeat sampling.
- c. Insert the brush into the ectocervical canal.
- d. ThinPrep collection
 - i. Insert brush into the cervix until only the bottommost fibers are exposed.

- ii. Slowly rotate $\frac{1}{4}$ - $\frac{1}{2}$ turn in one direction. DO NOT OVER ROTATE.
- iii. Rinse the spatula in the PreservCyt vial by swirling the spatula vigorously in the vial 10 times while pushing against the vial wall.
- iv. Swirl the brush vigorously to further release material.
- v. Discard the spatula.
- vi. Tighten the cap on the vial so that the tongue line on the cap passes the tongue line on the vial.
- e. Record the patient's name on the vial.
- f. Record the patient information and medical history on the *Cytopathology Request Form*.
 - i. **NOTE:** Ensure the First day of last menstrual period (LMP) and clinical history inclusive of previous abnormal Pap smears and biopsies are documented on the form.

2. Brushings: Any Site

- a. Brush suspicious area.
- b. Withdraw the brush.
- c. Place the brush in the CytoLyt Solution. and send to the Cytology Department.
- d. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.

3. Cerebrospinal Fluids (CSF)

- a. Clinical history is vital in achieving a valid diagnosis. Document the information on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. Clinical diagnosis
 - ii. Clinical symptoms and physical findings
 - iii. Invasive procedures within the last month such as pneumoencephalogram, myelogram, and arteriogram
 - iv. Previous therapy including intrathecal medication, irradiation to brain or cord, presence or insertion of shunts
 - v. Temporal relationship of current specimen to therapy, surgical intervention, invasive diagnostic procedures, or previous tap.
- b. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.
- c. After performing the tap, discard the first few drops, if bloody.
- d. Use clinical judgement in determining the volume of spinal fluid to collect.
- e. Send the specimen to the laboratory immediately.

4. Body Cavity Fluids

- a. Place heparin (3 units per ml of anticipated fluid) into the collection container.
- b. If patient can tolerate manipulation, move into several positions in order to well suspend the cellular material in the fluid. If the patient is unable to undergo manipulations, press softly on the collection area several times to suspend the cellular material before collection.
- c. Perform the centesis.

- d. Gently agitate the collection container as the fluid is collected in order to mix the heparin with the fluid.
- e. Send the specimen to the laboratory as soon as possible. If there will be any delay in transporting to the laboratory, refrigerate the specimen.
- f. Dispose of all needles before sending specimens to the laboratory.
- g. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.
 - ii. **NOTE:** Ensure all pertinent clinical information, such as any known or suspected malignancy or other pathologic condition, is documented on the *Cytopathology Request Form*.

5. Sputum

- a. If possible, collect specimen early in the morning before the patient has eaten. Otherwise, collect specimen at least one hour after the patient last ate.
- b. Inform the patient that saliva which has collected in the mouth or mucus accumulation in the throat and post-nasal area are unsatisfactory specimens. Discard any such material.
- c. Instruct the patient to brush the teeth and rinse the mouth and throat out well.
- d. Instruct the patient to inhale as deeply as possible and then to expel the air from the lungs with a cough. Repeat this several times, depositing the resulting mucus into the specimen cup.
- e. Instruct the patient to intermittently "rest" and breathe slowly while collecting the specimen to prevent hyper-ventilation and dizziness.
 - i. For patients with scanty sputum, it may take 15-30 minutes of intermittent deep breathing and coughing before an adequate sample can be obtained.
 - ii. In cases where little or no sputum is produced, an induced specimen may be obtained with the aid of respiratory therapy.
- f. Place a patient label on the specimen container.
- g. When transport to the laboratory may be delayed, store the specimen in a refrigerator to inhibit bacterial growth when transport to the laboratory will be delayed.
- h. Send the specimen to the lab with a *Cytopathology Request Form* and appropriate label the specimen if other tests are requested.
- i. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.

6. Oral Cavity Specimens

- a. Direct Scraping of Suspicious Areas
 - i. Scrape the lesion with the tongue depressor.
 - ii. Smear the material onto a glass slide and fix immediately.
- b. Buccal Smear
 - i. Hold slide with thumb and forefinger; hook little finger of same hand on corner of patient's mouth pulling in a lateral motion to expose inner cheek wall.
 - ii. Firmly scrape inner cheek wall with tongue depressor until "milky" cellular fluid

- collects on end of depressor.
- iii. Quickly smear "milky" fluid on a pre-labeled glass slide and fix immediately.
- iv. Prepare two slides, one each from the left and right inner cheek walls.

7. Esophageal Lavage

- a. **NOTE:** The patient must fast for 8 hours, but may consume clear fluids until 1 hour prior to the procedure.
- b. Determine the proper tube position by measuring against X-ray film or by using fluoroscopy, so that the proximal perforation of the tube lies 3 cm distal to the lesion.
- c. Mark the point at which to stop insertion of the tube.
- d. Pass the tube through the mouth.
 - i. **NOTE:** Do not use lubricant. Use ice or local anesthetic if patient does not tolerate insertion of tube well.
- e. Position the tube as instructed above with the proximal perforation 3 cm distal to the lesion.
- f. Instruct the patient to swallow sterile normal saline while gently aspirating the tube with the syringe, thus aspirating the saline as it reaches the tip of the tube.
- g. Repeat until 250 cc of fluid has been aspirated.
- h. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.
- i. Send the specimen to laboratory immediately or refrigerate specimen if there will be a delay in sending the specimen to the laboratory.

8. Brushing Endoscopically Visible Lesions

- a. Brush suspicious area.
- b. Withdraw the brush.
- c. Place the brush in CytoLyt Solution.
- d. Label all suspected or known highly infectious specimens. Specify the suspected or known infectious agent on the "Clinical History/Remarks" line of the *Cytopathology Request Form*.
 - i. **NOTE:** Special stains are required for observance and identification of many infectious agents.

9. Bronchoscopic Specimens

- a. Aspiration of Observed Secretions
 - i. Aspirate secretions as encountered.
 - ii. Label container with site of procurement, right from left, and bronchial branches.
- b. Bronchial Washings
 - i. Infuse 3-5 ml sterile saline through the bronchoscope into the involved portion of the lung.
 - ii. Allow the saline to stand in contact with the involved tissue as long as possible.
 - iii. Insert distal end of aspirating tube or catheter inside the latex tube of the specimen trap.
 - iv. Attach suction tubing to the rigid connector of the specimen trap.
 - v. Turn suction on and collect the specimen inside the specimen trap vial.
 - vi. When specimen is collected, remove the suction tubing along with the rigid connector to expose the small sterile chimney on the cap of the specimen trap.

- vii. Remove the aspirating tube or catheter from the latex tube and push the latex tube over the small chimney to seal the specimen trap.
 - 1. Label the container with the site of procurement.
- c. Direct Smears from Brushings
 - i. Brush suspicious area.
 - ii. Withdraw the brush.
 - iii. Place the brush in the CytoLyt Solution.
- d. Bronchoalveolar Lavage
 - i. Insert Fiberoptic bronchoscope into selected lung segment.
 - ii. Gently "wedge" the Fiberoptic bronchoscope into a third or fourth generation bronchus to obtain a seal for suction.
 - 1. **NOTE:** The walls of the bronchus can appear to collapse when suction is applied.
 - iii. Disconnect the Fiberoptic bronchoscope from the wall suction.
 - iv. Infuse 50 ml sterile non-Bacteriostatic saline through the working channel.
 - v. Aspirate the infused saline back into the syringe using gentle hand suction.
 - vi. Repeat steps (iv) and (v) two more times for a total volume of 150 ml.
 - 1. **NOTE:** A recovery of approximately 50 percent of the infused volume can be expected, although in diseased lungs this may drop to as low as 10 percent.
- e. Document suspicion of fungal or bacterial infection on the *Cytopathology Request Form* on the "Clinical History/Remarks" line.
 - i. **NOTE:** Agent-specific special stains are required for observance and identification of some fungi and bacteria.

10. Urine Cytology

- a. **NOTE:** DO NOT collect first morning specimen or any specimen that has been Long-standing in the bladder (ex: nocturnal specimen.)
- b. **NOTE:** DO NOT send 24-hour urine for Cytology test orders. Marked degeneration of cells results from long-standing specimens and these are therefore unsatisfactory.
- c. Catheterized urine is acceptable if catheter is in place as part of patient's ancillary care.
NOTE: Use only freshly collected urine.
- d. Instruct patient to drink fluids until bladder feels full.
- e. Voided urine is satisfactory for Cytologic studies and should be collected in the "clean catch" manner.
 - i. "Clean catch" urine collection:
 - 1. Instruct patient to wash external vaginal and urethral area.
 - 2. Instruct patient to hold external genitalia away from urethral opening.
 - 3. Instruct patient to void a small amount into the toilet bowl, then catch the "midstream" in the specimen collection container.
- f. **NOTE:** Refrigerate specimen if there will be a delay in transporting to the lab.
- g. **NOTE:** Document on the *Cytopathology Request Form* on the Clinical History/Remarks line if the specimen is a **voided** or **catheterized** specimen and if the patient has had instrumentation, such as cystoscopy, prior to specimen collection.

11. Nipple Secretions

- a. Write patient's name on one end of glass slide.

- b. Gently express only the nipple and subareolar area of any secretions which may be lying in the collecting ducts. If no secretion appears at the nipple with this gentle compression, do not manipulate further.
- c. Allow a "pea size" drop of fluid to collect upon the nipple tip.
- d. Immobilize the breast and using the nipple, smear the material across a glass slide. Make as many smears as the amount of material allows.
- e. Fix slide immediately. Smearing the material across the slide and dropping the slide into the fixative should be accomplished in one swift motion to prevent drying of the cells.

Notes

1. All specimens must have a Meditech label for a Cytology test attached to the specimen container or a completed *Cytopathology Request Form* when they arrive in the laboratory.
 - a. **NOTE:** Specify on the "Clinical History/Remarks" line of the *Cytopathology Request Form* if an infectious agent is known or suspected.
2. Attach a *Cytopathology Request Form* to all specimens that are to be shared by Cytology and other departments. (ex: Specimens with a request for cytology studies and microbiology studies)
3. Enter orders in Meditech for test requests that are performed by other laboratory departments.
4. Label all specimen containers with patient's name, account number and source of specimen.
5. Label all slides on the frosted end with patient's name.
6. Place the specimen(s) and *Cytopathology Request Form* in a biohazard bag (with the form in the separate compartment) for transport to the laboratory.

Approved:

Signature

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Rescinded:

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