

Cytology Sample Collection Instructions

Gynecologic Cytology Collection

Patient Preparation

The optimal time for collection of the Pap smear is two weeks after the first day of the last menstrual period. The patient should be instructed not to use vaginal medications, spermicides, or douches 48 hours prior to the collection of the Pap smear. The patient should also refrain from intercourse 24 hours prior to the collection of the Pap smear.

Note: Carbomer-containing products (i.e. vaginal lubricants, creams and gels) will interfere with sexually transmitted infection (STI) testing. Care needs to be taken to ensure products used by patients as well as products used in collections for PAP test and urogenital samples should be obtained using products free of carbomer(s).

Preparation of Cervix

Warm water should be used to lubricate the speculum. Lubricant jelly should be avoided as it often obscures cellular material making cytologic evaluation difficult or impossible. When the use of lubricant jelly is necessary, only carbomer/carbopol polymer free lubricants should be used sparingly as these do not interfere when testing for sexually transmitted infections (STIs).

The speculum must be positioned so that the outer surface of the cervix appears at the end of the instrument, since a sample from this area is necessary for adequate specimen collection. In order to not obscure the smear, remove excess blood, mucus, or inflammatory material gently with dry gauze, without forcibly removing any cellular material.

Specimen Collection: Pap Test Collection Technique Thin Prep Pap Collection (preferred)

A. Thin Prep Cytobrush/Spatula Combination Technique



Protocol: endocervical brush/spatula

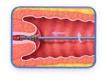
Quick reference guide



Obtain an adequate sample from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Apply water-soluble, carbomer-free gel lubricant sparingly to the posterior blade of the speculum if necessary.^{1,2} Select the contoured end of the plastic spatula and rotate it 360 degrees around the entire ectocervix, while maintaining tight contact with ectocervical surface.



Rinse the spatula as quickly as possible into the PreservCyt® Solution vial by swirling the spatula <u>vigorously</u> in the vial 10 times. Discard the spatula.



Obtain an adequate sampling from the endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottom-most fibers are exposed. Slowly rotate 1/4 or 1/2 turn in one direction. **DO NOT OVER-ROTATE THE BRUSH.**



Rinse the brush as soon as possible in the PreservCyt Solution by rotating the device in the solution 10 times while pushing it against the PreservCyt vial wall. Swirl the brush <u>vigorously</u> to further release material. Discard the brush.



Tighten the cap so that the torque line on the cap passes the torque line on the vial.



Record the patient's name and ID number on the vial. **Record** the patient information and medical history on the cytology requisition form.



Place the vial and requisition in a specimen bag for transport to the laboratory.



Transport to MercyOne Des Moines Laboratory at room temperature.

B. Thin Prep Broom Device Technique



Protocol: broom-like device

Quick reference guide



Obtain an adequate sampling from the cervix using a broom-like device. If desired, use lukewarm water to warm and lubricate the speculum. Apply water-soluble, carbomer-free gel lubricant sparingly to the posterior blade of the speculum if necessary. ^{1,2} Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction for five complete, 360 degree turns.



Rinse the broom as quickly as possible into the PreservCyt® Solution vial by pushing the broom into the bottom of the vial 10 times, forcing the bristles apart. Swirl the broom <u>vigorously</u> to further release material. Do not leave the head of the broom in the vial. Discard the collection device.



Tighten the cap so that the torque line on the cap passes the torque line on the vial.



Record the patient's name and ID number on the vial. **Record** the patient information and medical history on the cytology requisition form.



Place the vial and requisition in a specimen bag for transport to the laboratory.

www.thinprep.com

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1. Cervicovaginal Cytology Based on the Papanicolaou Technique; Approved Guideline - Third Edition (Clinical and Laboratory Standards Institute GPI5-A3). 2. Hologic Internal study, data on file.

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Transport to MercyOne Des Moines Laboratory at room temperature.

Pap Smear, Conventional Slide Collection

1. Contact laboratory for collection instructions.

Reagents:

ThinPrep PreservCyt Solutions – Flammable

Use with adequate ventilation. Inhalation of vapors may cause nonspecific discomfort (nausea, weakness), drowsiness with anesthetic effects and possible blindness. Avoid contact with skin and eyes. Wear gloves when using. Wash hands after use. Store away from excessive heat (<86° F or 30° C).

Cytology Spray Fixative - Flammable

Use with adequate ventilation and avoid breathing vapors. Prolonged exposure may cause mild irritation, drying, cracking or contact dermatitis. Persons with pre-existing skin disorders, eye problems, impaired liver; kidney or respiratory function may be more susceptible to the effects of this substance.

Non-Gynecologic Cytology Collection

Principle

Methods for collecting and handling non-gynecologic specimens will vary depending on the specimen type and the tests requested. It is the responsibility of the cytopathology laboratory to provide complete and accurate instructions (for the collection and handling of specimens) to all persons responsible for collecting these specimens.

Materials Needed:

- Specimen containers
- Cytolyt® Solution (available from MercyOne Des Moines Laboratory)
- PreservCyt® Solution (available from MercyOne Des Moines Laboratory)
- Collection fluid/saline
- Glass slides or Pap-Pak®
- Cytology Test Requisition forms
- Cytology spray fixative

Collection Procedures:

If you have specific questions regarding the collection of any cytology specimens, please call MercyOne Des Moines Laboratory Customer Service at 515-247-4439 and ask to speak with the cytology laboratory.

Body Cavity Fluids (Pleura, Peritoneal, Pericardial)

- 1. Collect up to one liter of fluid in a clean, dry, container. If possible add approximately 1 ml heparin for each 100 ml of fluid. *Optimum volume: 200 ml.
- 2. Keep specimen at room temperature.
- 3. Transport to MercyOne Des Moines Laboratory.

Breast/Nipple Secretions

- To remove any accumulated secretory material and exfoliated squamous cells from the nipple and duct openings, the nipple is first cleansed using a gauze pad moistened with saline.
- 2. The nipple is then wiped with a solution of 2% glacial acetic acid (in water) to loosen plugs.
- 3. Subsequent gentle squeezing expresses the plugs and the nipple is wiped dry.
- 4. Using gentle hand pressure starting at the base of the breast and extending toward the nipple, the specimen is obtained.
- 5. Generally, one or more beads of fluid appear on the surface of the nipple and can be collected into a vial of PreservCyt® Solution. Alternately, the fluid drops can be touched onto a glass slide and spray fixed IMMEDIATELY.
- 6. The first one or two smears will usually consist of debris and will be non-diagnostic. (These smears should be preserved as well, in case no other material can be obtained). However, the most diagnostic material can usually be collected by continued gentle massage of the breast and smearing of the material on slides. Again, **immediate fixation** is of the utmost importance.
- 7. Label slides with patient's first name, last name, date of birth, and store in slide container.
- 8. Keep specimen at room temperature.
- 9. Transport to MercyOne Des Moines Laboratory.

Brushings (Bronchial, Gastric, Esophageal)

- 1. Rinse the material from the specimen brush, or clip the wire and place the entire brush into a tube with 1-2 ml. of saline.
- 2. Refrigerate fresh specimen if transport to the laboratory will be more than one hour, or collect into PreservCyt® Solution.
- 3. Transport to MercyOne Des Moines Laboratory.

Cerebrospinal Fluid

- 1. Collect specimen into a sterile tube.
- 2. Optimum volume: 2 ml. Minimum volume: 0.5 ml.
- 3. Keep specimen refrigerated.
- Transport to MercyOne Des Moines Laboratory ASAP.

Fine Needle Aspiration Biopsy (FNA) - Lung, Breast, Prostate, Other (submitting specimen in *tube*) *See separate procedure for Thyroid FNA

*An optimal specimen would include both submitting a specimen in tube and on slide.

- 1. Aspirate specimen and place directly into a vial, tube or other container that contains CytoLyt® Solution or saline. (This fluid is available by calling the Mercy Clinical Laboratory to arrange for delivery by courier).
- 2. Keep specimen at room temperature.
- 3. Transport to MercyOne Des Moines Laboratory.

Fine Needle Aspiration Biopsy (FNA) - Lung, Breast, Prostate, Other (submitting specimen on *slides*) *See separate procedure for Thyroid FNA

*An optimal specimen would include both submitting a specimen in tube and on slide.

- 1. Aspirate specimen. Place bevel of needle against center of glass slide and express a small drop of aspirated material. Place a second slide on top of the first, allow weight of slide to spread the drop, then quickly pull slides apart.
- 2. Fix one slide immediately with spray fixative or immerse into a container filled with 95% alcohol for the Papanicolaou stain.
- 3. Air-dry the second slide for the Diff-Quik stain.
- 4. Allow the slides to dry for 15 minutes and place in slide container.
- 5. Keep specimen at room temperature.
- 6. Transport to MercyOne Des Moines Laboratory.

Fine Needle Aspiration Biopsy (FNA) – Thyroid Aspirate

- 1. Aspirate specimen. Place bevel of needle against glass slide and express a small drop of aspirated material.
- 2. Place a second slide perpendicular to the first and touch along the upper edge. In a smooth motion, the second slide is brought flush with the first and a single, rapid, gentle smearing stroke is made.
- 3. For each Aspirated Pass
 - a. Prepare one (1) fixed slide (immediately fix with spray fixative or immerse into a container filled with 95% alcohol) for the Papanicolaou stain.
 - b. Prepare one (1) air-dried slide for Diff-Quik stain.
- 4. After the slides are prepared, rinse the remaining material into a ThinPrep® CytoLyt Solution vial. The fluid can be rinsed through the needle a few times to ensure proper retrieval of all the aspirated material.

- 5. Allow slides to dry for 15 minutes and place in slide container.
- 6. Keep specimen at room temperature.
- 7. Transport to MercyOne Des Moines Laboratory.

Sputum

- 1. Collection should not be done within 30 minutes of eating to avoid food contamination.
- 2. Instruct patient to rinse mouth with water prior to each collection.
- 3. Have patient cough deeply from diaphragm and expectorate into chemically clean container. Optimum volume: 15 ml. Minimum volume: 1-2 ml.
- 4. Refrigerate fresh specimen if transport to the laboratory will be more than one hour, or collect into CytoLyt® Solution.
- 5. Transport to MercyOne Des Moines Laboratory.

Touch Preps (Tzanck prep, Conjunctival Smear)

- 1. Vesicular or bullous lesions MUST be present for preparation of a Tzanck smear. When ulcers or crusted lesions are present, only culture should be obtained.
- 2. Vesicular fluid can be collected by aspiration with a needle or rupturing the vesicle with a scalpel blade and collecting the fluid that oozes out with a moistened swab.
- 3. Place the swab or scraper into PreservCyt® Solution (available from MCL). Rinse well into the fixative and leave the swab in the solution. Break or cut the handle end off of the swab and replace the cap securely.
- 4. Refrigerate fresh specimen if transport to the laboratory will be more than one hour.
- 5. Transport to MercyOne Des Moines Laboratory.

Urine

- 1. Non "Clean catch" specimens are preferred when tests are to rule out malignancy.
- 2. Optimum volume: 50ml. Minimum volume: 10 ml
- 3. Refrigerate the specimen to stabilize if transport will be longer than 1 hour. It is recommended for cell preservation that the sample be transported to the lab the same day as collected.
- 4. Transport to MercyOne Des Moines Laboratory. Keep specimen refrigerated.

Washings (Bronchial, Tracheal, Esophageal) Aspirates

- 1. These specimens are often collected during endoscopic procedure.
- 2. Specimen should be collected into a chemically clean container.
- 3. Optimum volume: 15 ml. Minimum volume: 1-2 ml.
- 4. Refrigerate fresh specimen if transport to the laboratory will be more than one hour, or collect into CytoLyt® Solution.
- 5. Transport to MercyOne Des Moines Laboratory.