SwedishAmerican Reference Laboratory  
Cytology Specimen Collection Manual

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**General Information: Cytology**

Gynecologic specimens are screened by a Cytotechnologist. As part of our ongoing quality assurance plan, 10% of all normal specimens are randomly selected and reviewed by a Pathologist. All unsatisfactory and abnormal gynecologic cases are also reviewed by a Pathologist.

Pathologists are available for consultation.

**Slide Consultation**

Microscopic evaluation of prepared slides will be provided. Please provide accompanying report if available.

**General Specimen Collection and Labeling**

Cytologic diagnosis depends on adequate cellular sampling, proper smear preparation, and appropriate fixation. Below are the general directions for collecting, smearing, and fixing specimens. If you have any questions not addressed in this directory, please call Client Services at 815-966-2689 and ask to speak with a Cytotechnologist or Pathologist.

Unlabeled or incorrectly collected and/or labeled specimens will be rejected. Two unique specimen identifiers must be included on all specimen containers or slides.

**Slides**
- Use frosted-end slides
- Print the patient’s first and last name and date of birth on the frosted end with a #2 lead pencil. DO NOT USE INK. It will dissolve in the fixative.

**Containers**
- Label the container with the patient’s first and last name and date of birth.
- Include specimen source and the type of fixative added, if any, on the label.
Smear Preparation

Use of Cervical Brush

- Insert brush in the endocervix and rotate one-half turn. Remove the brush.
- Spread the material onto the slide by rolling the brush across the slide, using moderate pressure. Fix immediately.
- Do not use a cervical brush for endometrial samplings.
- Do not use a cervical brush on pregnant patients.

Direct Scraping

- Scrape the surface to be sampled using a wooden or plastic spatula.
- Spread the material across the surface of the slide with a single, smooth motion and apply spray fixative immediately.
- Avoid any air drying; it renders the specimen unsatisfactory for evaluation.
- If preparing two smears, fix the first before beginning the second.
- When using the scraping technique in conjunction with the brush technique, remember to scrape the cervix first and then brush the endocervix.

Fixation Techniques

Spray Fixation

- Use a commercially available spray-fixative or one available from the Laboratory.
- Immediately upon making the smear, hold the spray container of fixative in one hand and the slide in the other.
- Begin the spray in the air 6-10 inches away from the slide.
- Move the spray onto the slide; cover the slide completely.

Immersion

- Immediately upon making the smear, drop the slide into a jar of 95% alcohol cytology fixative (available from the Laboratory).
- When submitting two smears, place the slides back-to-back in the bottle. This will avoid loss of material when the slides are pulled apart and will allow proper fixation of the cells.
**Surepath Thinlayer Pap Protocol**

Per FDA approval, the Cervex-Broom or Brush and Spatula manufactured by Rovers may be used with the protocol below.

- Prepare vial with patient’s first and last name and date of birth.
- Visualize the cervix.
- Insert the central bristles of the Cervix-Broom into the endocervical canal. Use gentle pressure in the direction of the cervix until the lateral bristles bend against the ectocervix.
- Maintaining gentle pressure, rotate the Cervix-Broom five times in a clockwise direction by rolling the shaft between the thumb and forefinger.
  
  **Note: do not rotate counterclockwise**

- Transfer the sample to the vial by dislodging the broom head from the shaft and depositing the entire broom head into the vial. The broom head is easily separated from the shaft by pushing it off with your thumb and forefinger.
- Securely tighten the cap on the Surepath vial and send the specimen to the Laboratory with a completed Cytology requisition.
Collection of Non-Gynecologic Cytology Specimens

**Breast**

Secretions
- Smear a small drop of nipple secretion onto a slide when it appears at the nipple.
- Fix the specimen on the slide immediately using spray fixative or 95% alcohol.
- Repeat steps 1-2 as long as secretion is obtained.
- If both nipples are being sampled indicate from which breast the specimen was obtained on the glass slide.
- Label slides with patient’s first and last name and date of birth.
- Place slides in cardboard slide holders.

Fine-Needle Aspirate of Breast
- Aspirate the breast using a syringe and needle.
- Place a small drop of the aspirated sample onto a glass slide.
- Place a second glass slide on the top of the drop of aspirated material and smear the slides against each other.
- Fix the slides with a spray fixative or 95% alcohol immediately.
- If both breasts are being aspirated, indicate from which breast the specimen was obtained on the glass slides.
- Label slides with patient’s first and last name, date of birth and location of aspiration.
- Place slides in cardboard slide holders.

**Bronchial**

Brushings
- Collect sample and smear onto glass slides.
- Fix the specimen on the slide immediately using a spray fixative or 95% alcohol.
- Write the patient’s first and last name and date of birth on the white, frosted end of the slide.
- Place slides in cardboard slide holders.

Washings/Lavages
- Collect specimen and place in a container.
- Label container with the patient’s first and last name and date of birth and specify which collection technique was used.
**Sex Chromatin Smear (Buccal smears)**

- Have the patient rinse their mouth with water and discard the washing.
- Gently scrape the buccal mucosa using a clean, dry tongue blade.
- Smear the tongue blade evenly over a glass slide, labeled with the patient’s first and last name and date of birth.
- Fix the slide immediately using a spray fixative or 95% alcohol. Note: If using alcohol, allow slide to fix for at least 15 minutes.
- Repeat steps 2-4 until four slides have been prepared.

**Sputum**

- Collect a “deep cough” specimen into a container that contains 50% alcohol. Generally the first morning specimen is best. DO NOT send a 24-hour specimen.
- Label the container with the patient’s first and last name and date of birth.

**Tissue**

- Biopsy specimens are to be placed in formalin as soon as possible and delivered to the Laboratory.
- The following information should be indicated on Tissue Requisition:
  - Patient’s first and last name
  - Date of birth
  - Complete address
  - Telephone number
  - Complete billing information, including primary and secondary payers
  - ICD-9 coding
  - Attending physician and/or surgeon
  - Site of tissue excision
  - Pertinent patient history

- Unlabeled or incorrectly identified specimens will not be accepted.
**Tzanck Test For Viral Inclusions**

- With scalpel or sterile needle, open a fresh blister.
- Gather as much cellular material as possible and gently spread it on the slide.
- Immediately spray with fixative or immerse in 95% ethyl alcohol.
- Label the frosted end of the slide with patient’s first and last name and date of birth.
- Write "Tzanck Smear" on the requisition and indicate where on the body the blister was sampled.

**Urine For Cytology**

- Label a clean sterile container with patient’s first and last name and date of birth. Give container to patient for collection.
- A “clean-catch” midstream urine is optimal for testing. Do not send a 24-hour urine sample.