

### **Cytology Examinations**

#### **Non-Gynecological**

The blue and green Cytology Requisition (form # 911158) or electronic order must be completed for each cytology specimen submitted. Non-gynecological specimens (defined as any cytology specimen with the exception of PAP smears) are not billed to the client. The complete address of the patient as well as the patient's date of birth and last 4 digits of Social Security number should be provided. The patient's insurance will be billed provided all the required information is received; otherwise, the patient will be billed.

#### **Clinical Information**

For accurate cytologic evaluation, specimen type including laterality and location, relevant clinical findings, including duration of symptoms, physical findings, cytologic/pathologic diagnoses, and previous surgery should be provided. This information should be typed or legibly printed along with the physician's complete name. ICD-10 Codes should be included. If a copy of the report is to be sent to another physician(s), their name(s) must be provided.

#### **Containers, Fixatives and Labeling**

Consult the following individual specimen procedures for specific materials. Fixative containers for these non-gynecological specimens are available upon request from the Cytology Laboratory.

**Needle Aspiration:** – to detect malignant cells from cysts, lymph nodes or a tumor. The specimen may be put in either a “Cytolyt” preservative container or slides may be prepared. See the information below for each option.

#### **Cytolyt Container**

- 1) A clean container, containing “Cytolyt” or syringe (with a stopper) must be labeled with the patient's name, date of collection and specimen location including laterality.
- 2) The aspirated fluid should be expelled into the labeled “CytoLyt “ container.
- 3) The specimen should be placed into a plastic transport bag, with the request folded in thirds and placed in the non-sealed pocket.
- 4) Fill out the blue green cytology requisition with two sections or electronic order and send with specimen.
- 5) The specimen should be refrigerated if not transported to the Laboratory immediately.

#### **Slides**

- 1) Obtain 4 clean glass slides, a jar of 95% ethanol fixative, aspiration equipment and cardboard slide holder.
- 2) Label the glass slides on the frosted end, using a lead pencil, with the patient's name, date of birth and specimen location including laterality.
- 3) Place several drops of the aspirated fluid on the glass slide and place another slide, face to face, onto the first slide. Spread the material by pressing the two slides together.

## Cytology Specimen Collection Guide

- 4) Separate the slides, place one slide immediately into a jar of the 95% ethanol fixative and allow the second slide to air dry. Place air dried slide in a cardboard slide holder. Place a label on 95% ethanol fixative jar and cardboard slide holder that includes patient's name, date of birth and specimen location.
- 5) Fill out the blue green Cytology Requisition (form# 911158) or electronic Epic order and send with specimen.

### **Breast Discharge** – (Note: use above procedure for needle aspirations):

- 1) All slides must be labeled on the frosted end, using a lead pencil – include patient's name, date of birth and designate left or right breast. Label the slides before applying specimen or fixative.
- 2) Make up to 4 slides.
- 3) Fix in 95% ethanol or spray fix.
- 4) Label the specimen container with the patient's name, date of birth and specimen location.
- 5) Fill out the blue green Cytology Requisition (form# 911158) or electronic Epic order and send with specimen
- 6) Place into a plastic transport bag.

**Tzanck Smear** – Specimen can be submitted in a Cytolyt Container or prepared slides. See the information below for each option.

### **Cytolyt Container**

- 1) Label specimen container of “Cytolyt” fixative with patient's name, date of birth, date of collection and specimen location.
- 2) Rinse scrapings of lesion into “Cytolyt” fixative by vigorously swirling scraper in the fixative.
- 3) Fill out the blue green Cytology Requisition (form# 911158) or the electronic Epic order and send with specimen.
- 4) Place container in plastic transport bag.

### **Slides**

- 1) Prepare 2 glass slides by printing the patient's name, date of birth and specimen location on the frosted end, with a lead pencil.
- 2) Spread scrapings of lesion on glass slide. Immediately spray with cyto-fixative while still wet (or immerse in 95% ethanol). Do **not** allow the slides to air dry.
- 3) Fill out the blue green Cytology Requisition (form# 911158) or the electronic Epic order and send with specimen.
- 4) Place into a plastic transport bag.

### **Urine – collection:**

- 1) Have the patient void into a specimen container (sterile container is needed only if other procedures are to be done, i.e. cultures).
- 2) Label the base (never the lid) of the container, including patient's full name, date of birth

and date of collection.

- 3) Refrigerate and send to the Cytology Laboratory in a plastic transport bag.  
**Note:** 24 Hour urine specimens are not suitable for Cytology.
- 4) Fill out the blue green Cytology Requisition (form# 911158) or electronic order and send with specimen.
- 5) Place container in plastic transport bag.

**Sputum – collection:**

- 1) Collect specimen early in the morning before breakfast.
- 2) Rinse mouth several times before collection of specimen.
- 3) Label the container with the patient name, date of birth and date of collection.
- 4) Instruct patient to cough deeply and expectorate directly into plastic container that is labelled with patient name and date of birth.  
**Note:** For patients with scanty sputum, it may take 15-30 minutes of intermittent coughing before an adequate sample can be obtained. In selected cases where little or no sputum can be produced, an induced specimen may be obtained by the use of a heat aerosol.
- 5) Send to the cytology laboratory, a short history or clinical impression is recommended for cytologic examination.
- 6) Fill out the blue green Cytology Requisition (form# 911158) or the electronic Epic order and send with specimen.
- 7) Place container in plastic transport bag.

**Gynecological**

The blue green Cytology Requisition (form# 911158) or the electronic Epic order must be completed for all Cytology specimens and sent with the specimen to the laboratory. It should provide the patient name, date of birth, date specimen was taken, clinical diagnosis (ICD-10 code), and the physician's full name. All of this information is required by the Pathologist and/or Cytotechnologist to give an accurate and meaningful interpretation of his/her findings.

The following information must be included (when applicable):

- 1) Date of last menstrual period (LMP).
- 2) Surgery - date and type (i.e. 1997, hysterectomy).
- 3) Contraception type (i.e. IUD, birth control pills).
- 4) Therapy - type and date.
- 5) Pregnancy: if so, number of months.
- 6) Postpartum: if so, number of weeks or date of delivery.
- 7) Any previous abnormal PAP smears.
- 8) Specimen source (i.e. vaginal, cervical, endocervical).

**Equipment:**

- 1) ThinPrep™ PAP Test Kit – PreservCyt sample vial, collection device (Wallach papette or Medscand endocervical brush and **plastic** spatula).
- 2) Biohazard transport bag.

**ThinPrep™ PAP Test Kit****Introduction:**

The primary purpose of obtaining a sample of cells from the cervix (PAP smear) is to detect cervical cancer, its precursors, and other abnormalities of the reproductive tract. The ThinPrep™ PAP Test is a replacement for the conventional PAP smear. The ThinPrep™ process begins when the patient's sample is immersed and rinsed in a vial of PreservCyt™ solution instead of smeared onto a microscope slide. The ThinPrep™ Processor 2000 instrument processes the PreservCyt™ sample vial and produces a uniform slide with a thin monolayer of cells ready for staining and microscopic examination.

**Patient Preparation:**

Preferably, the woman should be tested two weeks after the first day of her LMP and not while she is menstruating. Women should not use vaginal medication, vaginal contraceptives, or douches during the 48 hours prior to the appointment. Intercourse is not recommended for 24 hours before examination. Smears should be taken before pelvic examination. Following correct positioning of the speculum, if there is mucus or other discharge present, it should be gently removed with ring forceps holding a folded gauze pad. Inflammatory exudate may be removed by placing a dry 2" X 2" piece of gauze over the cervix and peeling it away, or by using a dry proctoswab.

**Specimen Collection:**

- 1) **Wallach Papette (Cervical Broom)** – 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, 5 times. Rinse the broom into the PreservCyt™ solution vial by pushing the broom into the bottom of the vial 10 times, forcing the bristles apart. Then swirl the broom vigorously to further release material. Discard the broom. Tighten the cap so the torque line on the cap just passes the torque line on the vial. Label the vial with the patient's name and date of birth. Place the vial into a plastic transport bag with the Cytology Requisition form or electronic Epic order completely filled out, folded into thirds, and place it into the non-sealed pocket of the bag.
- 2) **Medscand Endocervical Brush/Plastic Spatula** – obtain an adequate sample from ectocervix using a **plastic** spatula. Rinse spatula into PreservCyt solution vial by swirling the spatula vigorously, 10 times. Discard the spatula. Next, obtain an adequate sample from the endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottom most fibers are exposed. Slowly rotate ¼ to ½ turn in one direction – **DO NOT OVER ROTATE**. Rinse the brush into the same PreservCyt vial that was used for the spatula by rotating the brush in the solution 10 times while pushing against the vial wall. Swirl the brush vigorously to further release material. Discard the brush. Tighten the cap of the vial so that the torque line of the cap just passes the torque line of the vial. Label the vial with the patient's name and date of birth. Place the vial into a plastic transport bag with Cytology Requisition or the electronic Epic order in the non-sealed pocket of the bag.

**NOTES:**

- ✓ Water may be used to lubricate and warm the speculum; however, lubricant jellies should not be used.
- ✓ The cervix should **not** be cleaned by washing with saline, as it may result in a relatively acellular smear.
- ✓ Optimal cervical specimens include samplings of the squamous and columnar epithelium, encompassing, in particular, the transformation zone where the majority of cervical neoplasias arise.

**Anal Rectal Cytology****Introduction**

Anal rectal cytology is used to evaluate Human Papilloma Virus (HPV) related disease of the anal canal before the progression to invasive squamous cell carcinoma. Liquid-based cytology preparations, such as ThinPrep, employ a semi-automated process to evenly disperse a thin monolayer of cells while removing background obscuring materials. Anal-rectal cytology specimens are non-gynecological exfoliative cytology tests. Evaluation of anal-rectal cytology is similar to that of cervical pap tests and interpreted by a qualified cytotechnologist and pathologist.

**Specimen Collection:**

- 1) Place the patient in either the lateral recumbent or dorsal lithotomy position.
- 2) Insert a tap water moistened multitest swab 5-6cm into the anal canal, past the anal verge, into the rectal vault. Apply firm lateral pressure to the swab while it is rotated and slowly withdrawn from the anal canal.
- 3) Place the swab in a ThinPrep PreservCyt vial. Vigorously swirl/agitate the swab several times. Press the swab against the vial to release the remaining fluid.
- 4) Dispose the swab and tighten cap.
- 5) Label vial with patient name and date of birth.
- 6) Complete Cytology Requisition (form# 911158) or Non-Gyn electronic Epic order with Anal/Rectal specimen location.
- 7) Place in biohazard bag for delivery to lab.

**HPV DNA TESING**

- 1) Specimen Collection: may utilize the same sample from the ThinPrep™ PAP Test Kit. Add on HPV orders are accepted 6 weeks from the original date of collection, please call 717-544-5086.
- 2) Vaginal and anal rectal HPV DNA testing ordered will be sent to Quest Diagnostics. Results will be received from a Quest report.

**Veracyte Afirma Thyroid FNA Molecular Analysis****Sample Collection:**

1. Office performing FNA biopsies MUST ensure 2 separate passes are rinsed in the Afirma FNA protect vial when performing the original Thyroid FNA procedure.
2. Label with proper patient identification and specimen location.
3. Refrigerate Afirma FNA protect sample along with other FNA specimens collected until courier pick up.

**Add on Afirma Thyroid FNA Molecular Analysis with Epic Access**

1. Order Afirma Thyroid test using LAB0001975.
2. Order will print to Pathology for sample to be sent out for testing.
3. Results will be completed in 10 business days.
4. Cytopathology supplemental report will include reference to a refer to Afirma molecular analysis results.

**Add on Afirma Thyroid FNA Molecular Analysis without Epic Access**

1. Cytology must be called at 717-544-5086 when testing is being added on to Thyroid FNA.
2. Cytology will coordinate with office to complete the Veracyte form.
3. Once order is received sample will be sent out for testing.
4. Results will be completed in 10 business days.
5. Cytopathology supplemental report will include reference to refer to Afirma molecular analysis results.