

MCHS-Mankato  
Cytology

## Cytology Specimens

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### PURPOSE / PRINCIPLE

The acceptance of cytopathology as a current and valid discipline in medicine is largely due to the work of George N. Papanicolaou, MD. Papanicolaou began to publish material on the cytologic method and in 1928 suggested that this method was of value in the screening and diagnosis of cervical cancer. The use of cytology as a diagnostic tool may be applied to any organ or fluid from the body. The specimen may be exfoliated cells in a fluid such as urine, sputum, pleural, etc. or cells that have been more forcibly removed by a scraper, brush, or needle. These specimens would include both liquid based and conventional pap smears, specimens from endoscopic brushings, and fine needle aspirations.

### QUALITY ASSURANCE

- Pap smear screening is performed by cytotechnologists (registered or registry eligible by the American Society of Clinical Pathologists). Pathologists (physicians who are certified by the American Board of Pathology) perform interpretation of reactive/reparative changes and all cellular abnormalities on pap smears and all interpretations on non-gynecological cytology.
- Supervisory eligible personnel rescreen approximately 10% of all negative cases to confirm the original diagnosis and reduce the percentage of false negative findings. Quality assurance monitors evaluate on an on-going basis the performance of all testing personnel as well as the performance of the overall laboratory. Continuing education and quality assurance conferences are held regularly between pathologists and cytotechnologists to discuss educational, difficult, interesting or unusual cases.

### SPECIMENS

#### Cytology Collection Supplies

- Cytology requisitions
- ThinPrep containers and collection devices
- Glass slides for conventional pap smears
- Spray fixative
- 50% alcohol containers for non-gyn cytology specimens
- Sputum cytology containers-Saccomanno (green) fluid.
- Plastic/cardboard slide carriers
- Specimen transport bags

#### Requisition

Cytology specimens must be submitted with a properly filled-out cytology requisition in order to process the specimen. A separate cytology requisition should be submitted for each source/specimen site. If concurrent biopsy material is also submitted, it should be submitted with a corresponding histology requisition. The requisition contains an area for patient demographics (name, address, DOB/ age), social security number (optional), and specimen collection date, submitting physician name, patient medical record or chart number, and billing instructions. Insurance information can be provided on an insurance sheet from your institution. The requisition also contains an area for the source and site of specimens as well as an area to request additional testing. Requisitions come preprinted with a facility name and their corresponding requestor number on them, make sure your facility name is on the requisition. Do not use requisitions from another institution as it may delay the results. Pertinent history and clinical information as it relates to the specimen should be provided using the reference below.

Gynecologic Specimens	Non-Gynecologic Specimens
Date of last menstrual period (LMP) Pregnant or Post-Partum	Clinical diagnosis and history History of cancer – type and location

History of IUD Abnormal bleeding Recent intrauterine instrumentation Radiation therapy Endometriosis Polyps Visible lesion(s) DES exposure <i>in utero</i> Recent colposcopy or biopsy (provide diagnosis) Herpes HPV (condyloma) Hormone therapy/ birth control pills Previous abnormal cytology cases should provide: <ul style="list-style-type: none"> <li>• Date of previous abnormal</li> <li>• Treatment</li> <li>• Normal subsequent cytology cases</li> </ul>	TB, liver cirrhosis, congestive heart failure, etc. Radiologic findings to date, suspected lesion Any systemic disease Dyspnea Hemoptysis Radiation therapy (date, reason and location) Drug therapy or other medications Hormone therapy Exposure to carcinogens Tobacco use (specify) Recent viral infections Unexplained, continued weight loss Occupation (if relevant) Past abnormal cytology
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### Specimen Labeling

All primary specimen containers **MUST** be labeled with two (2) identifiers at the time of collection. Submitted slides may be labeled with a single identifier, but 2 identifiers are preferred. Examples of acceptable identifiers include but are not limited to: patient name, date of birth (DOB), hospital number, requisition number, accession number, or a unique random number. A location (e.g., hospital room number or surgical suite number) is **NOT** an acceptable identifier.

### Specimen Transport of Cytology Specimens

For **all** specimens submitted on glass slides the patient's name should be legibly printed (pencil or indelible ink) on the frosted end of **each** glass slide. For non-gynecologic specimens, **each** specimen container must be labeled with the patient's name and the specimen type / site and second identifier. Pap smears should be placed into plastic or cardboard slide containers and then into the plastic biohazard transport bag (1 specimen/bag). Non-gynecologic specimens that are submitted as fluids should be transported in a sealable container, and placed in a plastic transport bag whenever possible. For all specimens the transport bag should be securely zipped shut and the requisition placed into the pocket on the outside of the bag.

### Specimen Rejection of Cytology Specimens

Cytology specimens submitted without a patient name on the specimen will be returned to the client for patient identification. We are required to verify patient identification for all specimens submitted. Specimens which cannot be processed or tested due to inadequate fixation, leaking specimen containers, slides received shattered beyond repair etc. will not be processed. A report indicating the reason for specimen rejection will be issued to the client and no charges will be made for those specimens. Every attempt will be made to prevent delay in testing or compromised results for the safety of you and your patient.

### Fixation Methods

**Immediate** fixation of cytology specimens is critical to the preservation of the cellular components. It is important that no air-drying occurs prior to fixation. If a smear is already air-dried it should not be put in alcohol fixative. Please note on the requisition and on the slides when submitting both fixed and air-dried slides. Formalin fixation is not appropriate for cytology specimens. Specimens should not be exposed to formalin or formalin fumes. This alters the cells and interferes with the staining reactions. There are several fixation techniques available, depending on the type and volume of the specimen. See specimen collection techniques and fixation procedures for specific details.

Step	Action
1.	Spray Fixative – suitable for specimens that are submitted on a slide(s). This would include specimens such as Pap smears, FNA specimens, and endoscopic brushing specimens.
2.	95% alcohol (usually used within a Coplin jar) - suitable for specimens that are submitted on a slide(s). This would include specimens such as Pap smears, FNA specimens, and endoscopic brushing specimens. The slides should be immersed in the alcohol for a minimum of 15 minutes. Alternatively, the fixative may be pipetted onto a slide until the smear is totally saturated and then allowed to dry.
3.	Sacomanno Collection Fluid – a green colored fixative for the collection of sputum.
4.	50% Alcohol - a clear fixative for the collection of fluid specimens. A 50/50 ratio of specimen to fixative is appropriate.

### Quick Reference Guide to Fixation Techniques

Specimen Type	Recommended Fixation Technique	Comments
<b>Large Volume Specimens:</b> <ul style="list-style-type: none"> <li>Abdominal and Pelvic washings</li> <li>Body Cavity Fluids (pleural, peritoneal)</li> <li>Urines</li> <li>Gastric/Esophageal washings</li> </ul>	Mix with equal amounts of 50% Alcohol Fix no more than 50 mL of specimen; submit the remainder of body cavity fluid unfixed.	Refrigerate the unfixed portion of the specimen if possible.
<b>Small Volume Specimens:</b> <ul style="list-style-type: none"> <li>FNA (fluid – not slides)</li> <li>Breast fluid</li> <li>CSF</li> <li>Cyst fluid</li> <li>Synovial fluid</li> <li>Bronchial washing</li> </ul>	Mix with equal amounts of 50% Alcohol Use 10 mL of fixative if specimen volume is under 10 mL.	With very small amounts of fluid it may be easier to transfer the fixative into the collection device (syringe, suction collection tubes) first. Then into a suitable container to submit the specimen.
<b>Direct Smears:</b> <ul style="list-style-type: none"> <li>Pap Smears</li> <li>FNA specimens Brushings</li> <li>Nipple Secretions</li> </ul>	<b>95% alcohol:</b> The slides should be immersed in the alcohol for a minimum of 15 minutes. Alternatively, the fixative may be pipetted onto a slide until the smear is totally saturated and then allowed to dry.  <b>or</b> <b>Spray fix:</b> Hold the bottle of spray fix 3-4 inches from the slide and disperse an even layer of fixative over the slide.	All slides should be completely dry before placing them into cardboard containers. The endoscopic brush may be submitted in 50% alcohol after the slides have been prepared.

### PROCEDURE

- [Gyn Specimen Collection Techniques and Fixation](#)
- [Non-Gyn Specimen Collection Techniques and Fixation](#)

**Gyn Specimen Collection Techniques and Fixation Procedures:****Conventional Gynecological Sources – Vaginal, Cervical, Endocervical Smears**

For optimal gynecologic cytology, it is recommended that the cellular samples be obtained from the ectocervix and the endocervix for each case and spread on one slide. For atrophic women it is recommended that the spatula be moistened prior to taking the smear. If a specimen is submitted for hormone effect analysis (maturation index), the specimen should be taken from the upper vaginal wall, and placed on a **separate** slide. If an endometrial abnormality is suspected, a vaginal pool specimen may be submitted. The use of the endocervical brush (in non-pregnant patients) in addition to the spatula is highly recommended. Optimally, the patient should abstain from intercourse, douching, or the use vaginal contraceptives during the 24 hours prior to collection. Pap smear collection should be avoided during the menstrual phase. The following procedure should be used to help ensure an acceptable specimen:

Step	Action
1.	Label frosted end of slide or VCE slide with the patient's name and DOB. The name should be legibly printed using a pencil or indelible ink. <b>Do not use a grease pencil or ball point pen.</b> If a two part case is being submitted (R + L cervix, MI etc.) make sure each slide is labeled with the appropriate site information. <b>NOTE:</b> If using unfrosted slides use a diamond point pen.
2.	Ectocervical/Endocervical Specimen a. Cervical Scraper Method: Insert the elongated tip of the scraper into the external os and gently rotate completely around using the tip as a pivot point. The cellular material obtained by this method will usually contain cells from the squamo-columnar junction. If this method does not prove satisfactory, we recommend the use of the cytobrush to obtain the endocervical specimen. b. Cytobrush Method: After sampling the ectocervix with a spatula, gently insert the cytobrush into the endocervical canal until only the bristles closest to the handle are exposed. Slowly rotate one half to one full turn. Remove pulling straight out.
3.	Material obtained should be evenly and thinly spread on the section of the slide farthest from the frosted end. When using the cytobrush the cells should be 'unrolled or untwisted' onto the slide, not painted on which can cause air-drying and distortion of the cells.
4.	<b>Immediately</b> fix the specimen. This is accomplished by holding the bottle of spray fix 3-4 inches from the slide and dispersing an even layer of fixative over the slide. Alcohol fixation may be substituted for the spray fix. Place the slide in a Coplin jar with 95% ethyl or reagent alcohol, the slide can be removed after 15 minutes.
5.	Allow the specimen to dry completely and place in cardboard or plastic slide holders.
6.	Place the plastic/cardboard specimen container in the sealable compartment of the transport bag and securely zip shut. Place the requisition in the pocket on the outside of the bag.

**Liquid Based Gynecological Sources**

MCHS - Cytology uses the Hologic (ThinPrep) collection vials. Specimens may be collected with the brush/spatula combination or the broom method. **Immediate** dispersal of the specimen into the fixative is imperative with either collection method. Vial holders (eggs) are available upon request.

**Endocervical Brush/Spatula Procedure:**

Step	Action
1..	Obtain an adequate sampling from the ectocervix using a plastic spatula, use of wood spatulas is not recommended.
2.	Rinse the spatula as quickly as possible in the PreservCyt Solution vial by swirling the spatula vigorously in the vial 10 times. Discard the spatula.
3.	Obtain an adequate sampling from the endocervix using an endocervical brush device.
4.	Insert the brush into the cervix until only the bottom-most fibers are exposed.
5.	Slowly rotate 1/2 turn in one direction. <b>DO NOT OVER ROTATE.</b>
6.	Rinse the brush as quickly as possible in the PreservCyt Solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall.

<b>Endocervical Brush/Spatula Procedure:</b>	
<b>Step</b>	<b>Action</b>
7.	Swirl the brush vigorously to further release material.
8.	Discard the brush.
9.	Tighten the cap so that the black torque line on the cap passes the black torque line on the vial.
10.	Record the patient's name and ID number on the vial.
11.	Record the patient information and medical history on the cytology requisition form.
12.	Place the vial and requisition in a specimen bag form transport to the laboratory.

<b>Broom Like Device Procedure</b>	
<b>Step</b>	<b>Action</b>
1.	Obtain an adequate sampling from the cervix using a broom-like device. 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 five times.
2.	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.
3.	As a final step, swirl the broom vigorously to further release material.
4.	Discard the collection device.
5.	Tighten the cap so the black torque line on the cap passes the black torque line on the vial.
6.	Record the patient's name and ID number on the vial.
7.	Record the patient information and medical history on the cytology requisition.
8.	Check that the information on the container and the requisition are complete and identical.
9.	Check that the cover on the specimen container has been tightened and is not leaking.
10.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
11.	Place the requisition in the pocket on the outside of the bag.

### **Non-Gyn Specimen Collection Techniques and Fixation Procedures**

<b>Sputum Cytology</b>	
<b>Step</b>	<b>Action</b>
1.	Have patient brush teeth and rinse mouth with water.
2.	Cough vigorously to bring up material from deep in the lungs. <b>DO NOT JUST CLEAR THE THROAT OR SPIT SALIVA, WHAT IS NEEDED IS A DEEP COUGH PRODUCING MATERIAL FROM THE LUNGS.</b>
3.	Expectorate (spit) the material into a container of Saccomanno fixative.
4.	A teaspoon of material per day is adequate
5.	Repeat this procedure for 3 consecutive days (same bottle of fixative may be used).
6.	Label specimen bottle with patient's name, physician, and specimen type.
7.	Check that the information on the container and the requisition are complete and identical.
8.	Check that the cover on the specimen container has been tightened and is not leaking.
9.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
10.	Place the requisition in the pocket on the outside of the bag.

**Breast Cyst and Nipple Secretion Cytology** (for solid masses of the breast see FNA of Solid Masses)

Step	Action
<b>Breast Cyst Fluid</b>	
1.	Cyst fluid (more than 0.5 mL) can be expelled directly into a labeled bottle of 50% alcohol without making any smeared slide preparations.
2.	Alternatively, slides can be prepared as follows: <ol style="list-style-type: none"> <li>Label two slides with the patient's name and second identifier.</li> <li>The material is transferred to one slide and smeared by placing the second labeled slide on top and pulling the two slides apart, or as in a blood smear preparation.</li> <li><b>Immediately</b> after preparation (1-3 seconds), spray the slides with spray fixative to prevent the cells from undergoing drying or degenerative changes.</li> <li>Allow the slides to adequately dry and place in a cardboard or plastic slide holder.</li> </ol>
<b>Nipple Secretions</b>	
1.	A labeled slide can be touched directly to the drop of secretion on the nipple and then <b>immediately</b> spray fixed.
2.	If the secretion is abundant or thick, smear the specimen by placing another labeled slide on top and pulling the two smears apart, or smearing as in a blood smear preparation. The slides should be spray fixed <b>immediately</b> (within 1-3 seconds).
3.	Allow the slides to adequately dry and place in a cardboard or plastic slide holder.
4.	In addition to the required information on the requisition, it should also include: <ul style="list-style-type: none"> <li>If the mass is cystic or solid, whether the specimen is an aspirate or secretion, any pertinent history, radiologic findings, and whether the mass appears clinically suspicious for malignancy.</li> <li>Check that the information on the container and the requisition are complete and identical.</li> <li>Place plastic/cardboard specimen container in the sealable compartment of the transport bag and securely zip shut.</li> <li>Place the requisition in the pocket on the outside of the bag.</li> </ul>

**Fine Needle Aspiration of Solid Masses** (recommended technique)

The FNA utilizes the cutting action of the needle tip to obtain material, so be vigorous not timid, in aspirating solid masses. In addition to the required information on the requisition, it should also include: if the mass is cystic or solid, any pertinent history, radiologic findings, and whether the mass appears clinically suspicious for malignancy

**Material Needed:**

- 22-25 gauge needles
- 5, 10, or 20 cc syringes
- Alcohol or Betadine swabs
- Sterile gloves
- Glass microscope slides
- Spray fixative or Coplin jar filled with 95% alcohol
- Specimen container with 50% alcohol
- Syringe holder (gun) – optional
- Anesthesia – optional
- Assistant

Step	Action
1.	Explain the procedure to the patient and get consent form signed.
2.	Set up materials <ol style="list-style-type: none"> <li>Place needle on the syringe (and in the gun, if used).</li> <li>Label multiple slides with patient's name and second identifier.</li> <li>On a nearby flat surface arrange the slides to facilitate smearing and fixing.</li> <li>Spray fixative or open Coplin jar of 95% alcohol in close proximity to the slides.</li> <li>Open specimen container 50% alcohol.</li> <li>Assistant ready to help by smearing and fixing slides.               <ol style="list-style-type: none"> <li>Put on gloves.</li> </ol> </li> </ol>

Step	Action
	(2) Sterilize skin over area to be punctured using alcohol or Betadine swabs.
	(3) Inject local anesthesia (into skin only) if desired.
	(4) Fix lesion between fingers.
	(5) Insert needle into lesion.
	(6) Apply full vacuum to the needle by pulling back on the plunger.
	(7) Immediately make 5-10 quick, 2-5 mm in and out excursions into the lesion (do not allow the needle to exit the skin). Aspirate the lesion for 5 – 10 seconds, if however, blood gets to the needle hub it is time to stop and prepare the smears before the specimen clots in the needle.
	(8) <b>RELEASE THE VACUUM</b> by letting the plunger return to its equilibrium point.
	(9) Remove the needle from the lesion and the patient.
	(10) Quickly and carefully remove the needle, aspirate 5-10 cc of air into the syringe reattach the needle.
	(11) Expel semi-liquid aspirate onto slide (one small drop per slide).
	(12) The assistant should <b>immediately</b> smear material on the slide by placing another labeled slide onto the first slide and pulling the slides apart. To minimize crushing of the specimen, allow only capillary action to hold the slides together while pulling them apart.
	(13) Fix <b>immediately</b> (1-2 seconds) by spraying or dropping into the Coplin jar of 95% alcohol (see <b>NOTE</b> below).
	(14) It is often helpful to have some air-dried smears as well. If adequate fixed material is obtained, 2 or 3 air-dried smears should be prepared and labeled as such.
	(15) Rinse any remaining material from the needle and syringe in 50% alcohol and submit along with the slides.
	(16) Repeat the entire process, performing 2-5 separate passes per lesion (depending on site and material obtained) for a total of 6-10 smears. Separate needles and syringes should be used.
	(17) Obtain hemostasis and bandage patient.
	(18) Submit the specimen in a transport bag with a completely filled out Cytology requisition.
	<b>NOTE:</b> Slides can be removed after 15 minutes and sent in a plastic or cardboard slide holder instead of submitting the Coplin jar. Make sure slides are labeled as fixed.

#### Body Fluids – Large volume (Pleural, Peritoneal)

Step	Action
1.	Submit specimens fixed in 50% alcohol. Use equal amounts of fixative and specimen for proper fixation.
2.	For volumes over 100 mL, submit 50 mL in fixative and the rest unfixed. <b>NOTE:</b> A cell block is routinely attempted on all body fluids, but does not always survive processing.
3.	Label specimen container(s) with patients name, specimen type, and second identifier.
4.	Check that the information on the container and the requisition are complete and identical.
5.	Check that the cover on the specimen container has been tightened and is not leaking.
6.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
7.	Place the requisition in the pocket on the outside of the bag.

#### Body Fluids – Small volume (Breast, CSF, Synovial, etc.)

Step	Action
1.	Fix the specimen in 50% alcohol. Use equal amount of fixative and specimen to obtain proper fixation. Excess fixative is acceptable for very small specimen amounts. Use 10 mL of fixative if specimen volume is under 10 mL.
2.	Label specimen with patient's name, specimen type, and second identifier.
3.	Check that the information on the container and the requisition are complete and identical.
4.	Check that the cover on the specimen container has been tightened and is not leaking.

<b>Body Fluids – Small volume (Breast, CSF, Synovial, etc.)</b>	
<b>Step</b>	<b>Action</b>
5.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
6.	Place the requisition in the pocket on the outside of the bag.

<b>Body Fluids - Urine</b>	
<b>Step</b>	<b>Action</b>
1.	Agitate specimen to mix contents and fix specimen in 50% alcohol. Use equal amount of fixative and specimen to obtain proper fixation.
2.	Label specimen with patient's name, specimen type, and second identifier.
3.	Indicate if specimen is post instrumentation/catheterized or voided on the requisition.
4.	Check that the information on the container and the requisition are complete and identical.
5.	Check that the cover on the specimen container has been tightened and is not leaking.
6.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
7.	Place the requisition in the pocket on the outside of the bag.

<b>Washings (Bronchial, Bladder, Gastric, Pelvic, Esophageal, etc.)</b>	
<b>Step</b>	<b>Action</b>
1.	Fix the specimen in 50% alcohol. Use equal amount of fixative and specimen to obtain proper fixation. Excess fixative is acceptable for very small specimen amounts. Use 10 mL of fixative if specimen volume is under 10 mL.
2.	Label specimen container with patient's name, specimen type and second identifier.
3.	Check that the information on the container and the requisition are complete and identical.
4.	Check that the cover on the specimen container has been tightened and is not leaking.
5.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
6.	Place the requisition in the pocket on the outside of the bag.

<b>Brushings (Bronchial, Gastric, Esophageal, etc.)</b>	
<b>Step</b>	<b>Action</b>
1.	Label slides with patient name and site of area brushed.
2.	Smear specimen from the brush onto the slide.
3.	Fix slides immediately in a Coplin jar filled with 95% alcohol for 15 minutes or if this is unavailable spray with cytology fixative.
4.	Submit the brush by placing it into a container of 50% alcohol.
5.	Label specimen container with patient's name, specimen type, and second identifier.
6.	Check that the information on the container and the requisition are complete and identical.
7.	Check that the cover on the specimen container has been tightened and is not leaking.
8.	Place specimen container or plastic/cardboard slide holder in the sealable compartment of the transport bag and securely zip shut.
9.	Place the requisition in the pocket on the outside of the bag.

<b>Direct Smears of the Skin (Tzanck-Herpes)</b>	
<b>Step</b>	<b>Action</b>
1.	Label slides with patient's name and lesion site.
2.	If the lesion is extremely dry, soak under a moist towel for 10 minutes.
3.	The sample may be obtained by the use of a scraper (tongue depressor) or by scraping or pressing the slide on/across the lesion. If a scraper is used, transfer the material to a slide.
4.	Fix the slides immediately in 95% alcohol for 15 minutes or spray fix.
5.	Air dried slides may be submitted <b>in addition</b> to the fixed slides (please note AIR on slides and requisition).



Direct Smears of the Skin (Tzanck-Herpes)	
Step	Action
6.	Check that the information on the container and the requisition are complete and identical.
7.	Place plastic/cardboard specimen container in the sealable compartment of the transport bag and securely zip shut.
8.	Place the requisition in the pocket on the outside of the bag.

### Anal-rectal sample

An anal-rectal sample can be collected with the patient in either the lateral recumbent or dorsal lithotomy position.

- If the patient is already having a gynecologic exam, lithotomy is often more convenient. The specimen can be collected before or after the gynecologic exam.
- For male patients, lateral recumbency is more commonly used with the patient lying on his side with knees drawn up toward the chest.

Step	Action
1.	A tap water moistened Dacron swab or cytobrush is used (cytobrush may be more uncomfortable for the patient).
2.	The swab or brush is inserted about 5-6 cm into the anal canal past the anal verge, into the rectal vault.
3.	Firm lateral pressure is applied to the swab/brush handle as it is rotated and slowly withdrawn from the anal canal, inscribing a cone-shaped arc. <ul style="list-style-type: none"> <li>• Care should be taken to ensure that the transition zone is sampled.</li> <li>• A swab or smear of the peri-anal skin is an unsatisfactory sample.</li> </ul>
4.	The swab or brush is then placed in a vial of PreservCyt (Pap smear container) and agitated vigorously several times to release the cellular material.
5.	Discard the collection device.
6.	The specimen may be smeared onto a glass slide as other brushings are but HPV testing <b>cannot</b> be performed on a glass slide sample.
7.	Label the vial with the patients name and second identifier.
8.	Check that the cover on the specimen container has been tightened and is not leaking.
9.	Place specimen container in the sealable compartment of the transport bag and securely zip shut.
10.	Place the requisition in the pocket on the outside of the bag.

## REPORTING/INTERPRETING RESULTS

### The 2001 Bethesda Reporting System:

- **Gynecologic Cytopathology Reports**
  - The 2001 Bethesda System is used for reporting results of gynecological specimens. The primary interpretation is shown between asterisks on the final report and has three general categories:
    - **Unsatisfactory for Evaluation:** The specimen does not yield diagnostic information. Additional statement(s) will state the reason that the specimen is unsatisfactory.
    - **Negative for Intraepithelial Lesion or Malignancy:** This indicates that the findings are normal.
    - **Epithelial Cell Abnormality:** This category is used to indicate there are abnormal cells present.
  - Additional statements in the body of the text will describe the severity and type of the abnormality, and may include a recommendation for further action.
  - Additional statements that may appear in the body of the text include: presence of organisms, presence or absence of endocervical cells (non-hysterectomy patients), obscuring elements, hormone pattern if applicable, and location of testing (if not the lab where specimen is submitted). A statement of adequacy should conclude the body of report. The area below the body of the report should contain the patient clinical information that was provided on the requisition.

- **Non-Gynecologic Cytopathology Reports**

- The primary interpretations used for reporting are:
  - Unsatisfactory Specimen for Evaluation
  - Non-Diagnostic
  - Negative for Malignancy
  - Suspicious for Malignancy
  - Highly Suspicious for Malignancy
  - Positive for Malignancy
  - Diagnosis - for cases that require an explanatory text, similar to a histology report.
- Additional statements regarding specimen content, cellular abnormality or other pertinent findings will follow the primary diagnosis when applicable. An adequacy statement should conclude the body of the report. The area below the report should contain the patient clinical information that was provided on the requisition.

## Attachment 1

## Cytology Test Listing

Test Code	Test	Specimen Requirements
104 or 1104	Pap Smear	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for conventional pap smears for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details.</li> </ul>
108 or 1108	Thin Layer Pap Smear	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for thin layer pap smears for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details.</li> </ul>
137	Sputum	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen. - See Specimen Collection Techniques for sputum for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details</li> </ul>
172	Bronchial Washings	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for washings for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details</li> </ul>
175	Bronchial Brushing	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for brushing specimens for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details</li> </ul>
290	Fine Needle Aspirations	<ul style="list-style-type: none"> <li>• A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for FNA (solid and cystic) specimens for details.</li> <li>• A cytology requisition that is completely and properly filled out, <b>indicate exact specimen site.</b> Example: FNA of thyroid not FNA of neck. See Cytology Requisition for details.</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details</li> </ul>
110	Body Fluids	<ul style="list-style-type: none"> <li>• Includes large/small volume fluids, non-bronchial brushings/washings, urines, herpes smears. A properly collected, fixed and labeled specimen - See Specimen Collection Techniques for body fluids for details.</li> <li>• A cytology requisition that is completely and properly filled out – See Cytology Requisition for details</li> <li>• Place specimen and requisition in transport bag and place in area designated for courier pickup. – See Specimen Transport of Cytology Specimens for details</li> </ul>
125	HPV Typing	<ul style="list-style-type: none"> <li>• Additional test that may be ordered in conjunction with a thin layer pap smears. Indicate in the available area on the requisition.</li> </ul>
127	Chlamydia	<ul style="list-style-type: none"> <li>• Additional test that may be ordered in conjunction with a thin layer pap smears. Indicate in the available area of the requisition.</li> </ul>
129	Neisseria Gonorrhoea	<ul style="list-style-type: none"> <li>• Additional test that may be ordered in conjunction with a thin layer pap smears. Indicate in the available area of the requisition.</li> </ul>