



PATHOLOGY CONSULTANTS of Central Virginia, Inc.

GENERAL GUIDELINES FOR SUBMISSION OF CYTOLOGY AND SURGICAL PATHOLOGY SPECIMENS

The proper care and handling of medical specimens is important, avoids specimen mix-ups, and maintains specimen integrity. The intention of this outline is to offer a method of optimum specimen handling.

All specimens should be accompanied by a specimen requisition form (cytology or surgical pathology), which has been properly completed with the following information:

1. Patient's full name.
2. Patient's address.
3. Patient's date of birth.
4. Age and Sex.
5. Patient's social security number.
6. Patient's Centra Health medical record number (if available).
7. Insurance Information (guarantor's name, insurance company and insurance number).
8. Specimen type and source.
9. Clinical Diagnosis and any appropriate clinical history.
10. If a Pap smear, date of last menstrual period.
11. Name of submitting physician.
12. The date the specimen was collected (not the date the requisition is completed.)
13. Any special study requests.
14. Requested test(s) for gynecological specimens.
15. Patient signature if applicable.

If multiple specimens are submitted, each must be appropriately labeled and identified. Each part must be identified on the requisition ticket, but each part does not need a separate requisition ticket.

The specimen container itself must be identified with two patient identifiers. This should include the patient's name as well as date of birth, chart number, or hospital/accession number. The specimen container and requisition should be placed in a specimen biohazard transport bag.

Please indicate if the patient has a different address, name change, etc. since the last time a specimen was submitted to PCCV.

HOURS AND CONTACT NUMBER:

Pathology Consultants is open from 8:00 a.m. to 5:00 p.m. Monday through Friday. The contact number is 434-947-3925.

SUPPLIES:

Supplies for surgical and cytology specimens may be obtained from PCCV. Supplies may be requested by phone (434-947-3925), fax (434-947-3927), or by completing a Supply Request form and returning it by the courier.

COURIER SERVICE:

PCCV provides a courier service for most clinician offices, usually at mid-day. Urgent biopsy cases occurring after the courier pickup can be dropped by the PCCV office by 5 P.M. Centra Lab will also pick up specimens for PCCV.

TURN-AROUND-TIME:

Results will be available on most surgical specimens and Non-Gyn / FNA specimens in 24 hours. Occasional cases, which require special stains, molecular studies, or flow cytometry, may be delayed slightly longer.

Please notify the Pathologist for urgent cases when results are required in less than 24 hours.

A pathologist will notify the submitting physician in the event of an unexpected delay in reporting results that may impact patient care.

Results will be available on GYN specimens in 2 to 3 days. Please write "rush" on the requisition when results are required ASAP.

REPORTS: Reports can be received multiple ways, which include:

- auto faxed
- printed
- portal (web portal)
- EMR interface in some cases

FIXATION AND HANDLING:

1. **Routine surgical specimens:** A small specimen should be placed in formalin as soon as possible. As a general guideline, the volume of formalin should be 10 times the tissue volume. Specimens in formalin may be kept at room temperature.
2. **Endoscopy specimens:** Small endoscopy specimens, prostate biopsies, bladder biopsies, etc. should be placed in Hollande's fixative. PCCV supplies this green fixative in 20 mL specimen containers. Specimens in Hollande's fixative may be kept at room temperature.
3. **Unfixed specimens:** Unfixed specimens should be brought immediately to PCCV or kept refrigerated until PCCV can pick up. For these specimens please call PCCV immediately (434-947-3925). Prompt handling of unfixed material is necessary to prevent degeneration of the exfoliated cells or tissues, which renders the specimen

unsatisfactory. Ideally, unfixed material should be submitted to the laboratory within minutes after being obtained. Material may then be triaged for microbiologic culture, flow cytometry, cytogenetic analysis and/or molecular analysis.

4. FNA extra non-smeared material: Needle rinses, blood clot within the hub, etc. should be placed in 10 % zinc formalin for cell blocks that can be utilized for extra studies (immunohistochemical stains, molecular, etc.) PCCV supplies 20 ml specimen bottles of 10 % zinc formalin. These may be kept at room temperature.
5. Alcohol fixed slides or ThinPrep preservative: Alcohol fixed smears, such as FNA's and conventional pap smears, and ThinPrep specimens may be kept at room temperature.

GYNECOLOGICAL SPECIMEN: (Pap Smear)

Conventional Technique - alcohol fixed

1. Obtain all of the necessary supplies prior to the pelvic examination. Supplies may be obtained from PCCV and include the following:
 - a) Coplin jar filled with alcohol fixative.
 - b) One glass slide with frosted end.
 - c) Cytology spatula and cytobrush, or cervex-brush.
2. Fill out the requisition indicating the patient's last menstrual period (LMP) date and pertinent clinical information/history.
3. Have slides and fixing solution (alcohol fixative or spray fixative) ready before taking a smear. Write the name of the patient and preferably the birth date on the slide. Write on the frosted end of the slide using a #2 lead pencil. Put the name of the patient and smear on the same side of the slide.
4. Take material from the cervix and/or vagina. For cervical smears we recommend the cytobrush/spatula or cervical broom. The smear should be taken before any lubricant is used. (Manufacturer's instructions for use of the cervical cytobrush or cervical broom are available upon request- please call PCCV at 434-947-3925)
5. Smear the material on a clean slide.
6. As soon as the physician prepares the slides, *instantaneously* put them into the alcohol fixative. DO NOT ALLOW SLIDES TO DRY FIRST. (Several patient slides can be placed in each bottle. Place slides back to back with specimen on the front of the slides.)
7. If specimen jars with alcohol fixative are not available, the slides may be spray fixed with appropriate fixative. Slides must be fixed immediately without air-drying. Spray fixative on slide immediately after it has been smeared, using a steady left to right motion and holding the can or bottle 6 inches from the slide. After about 30

minutes, the slide will be completely dry. *Spray fixation is less desirable than wet, alcohol fixation.*

8. For offices that mail slides, spray fixative and mailing containers are provided by PCCV.
9. Pap smears obtained during a surgical procedure should be submitted in the same specimen bag with the surgical specimen. Indicate "pap smear" on the surgical requisition ticket.

Liquid-based Techniques

THINPREP COLLECTION (Cytoc)

1. Obtain all necessary supplies prior to the pelvic examination. This technique is done only upon request by the physician or patient. Material may be obtained from PCCV and includes the following:
 - a) Vial of PreservCyt Solution (ThinPrep)- check the manufacturer's expiration date, located on the vial label prior to collecting the specimen. Do not use expired vials- return unused, expired vial to PCCV.
 - b) Cytobrush Plus GT (ThinPrep) (Any plastic sampling device may be utilized with the ThinPrep)
2. Fill out a PCCV Request for Cytopathology Examination as completely as possible. Mark all desired tests. Include the patient's last menstrual period (LMP) date and pertinent clinical information/history on the requisition ticket. Label the PreservCyt vial with the patient's name **and** another patient identifier such as date of birth or chart number. The container must be labeled with **two** patient identifiers.
3. Collect the specimen the same as you do for a Pap smear and *immediately* place into preservative solution. The sampling device with the collected material should be swished and swirled into the liquid vial of preservative solution. The brush should be discarded appropriately.
4. Tighten the cap so that the torque line on the cap passes the torque line on the vial. Place the vial and requisition in a specimen bag for transport to the laboratory at room temperature.

HUMAN PAPILLOMA VIRUS (HPV) AND REFLEX TESTING:

Testing for high risk HPV cocktail (HR HPV) by molecular analysis may be performed on those samples collected in ThinPrep preservative. PCCV keeps liquid based Pap test vials for approximately four weeks and subsequent reflex testing for HR HPV may be performed for those patients with atypical squamous cells of undetermined significance (ASCUS) diagnoses. "Co testing" for both cytology and HR HPV may also be performed with a reflex HPV 16/18 performed if the cytology is negative but the HPV is positive. These options may be indicated on the cytology requisition when ordering the Pap test or ordered within four weeks by phone.

HPV only tests should be collected in ThinPrep preservative. Indicate on the requisition "HR HPV only" or if a "16/18 only" test is requested without a Pap test.

CHLAMYDIA AND GONORRHOEAE (CT/NG)

Testing for CT/NG by molecular analysis may be performed on samples collected in ThinPrep preservative. Gen-Probe Aptima vaginal swabs (clinician collected) and Gen-Probe Aptima endocervical swabs are also acceptable. Check the manufacturer's expiration date on the ThinPrep vial and the swab collection kits.

CT/NG can be tested in addition to a pap test or without a pap test. CT/NG *only* tests should be indicated on the requisition "Chlamydia/Gonorrhoeae (CT/NG) only". CT and NG may also be ordered individually or in conjunction with other molecular tests.

TRICHOMONAS VAGINALIS (TV)

Testing for TV by molecular analysis may be performed on samples collected in ThinPrep preservative. Gen-Probe Aptima vaginal swabs (clinician collected) and Gen-Probe Aptima endocervical swabs are also acceptable. Check the manufacturer's expiration date on the ThinPrep vial and the swab collection kits.

TV can be tested in addition to a pap test or without a pap test. TV *only* tests should be indicated on the requisition "Trichomonas vaginalis (molecular)". TV may also be ordered in conjunction with other molecular tests.

COMPUTER THINPREP PAP TEST SCREENING:

Computer assisted primary screening of ThinPrep pap slides with dual review by a cytotechnologist is an optional test that may be ordered on the requisition by checking the box "Computer ThinPrep Pap Test Screening". Computer assisted screening is a combination of advanced screening technology with human interpretation to increase the detection of abnormal cells on a ThinPrep pap test. An additional cost of \$7.00 is charged to the ThinPrep Pap test and is covered by most insurance plans.

CYTOLOGY SPECIMENS:

(FOR CYTOLOGY SPECIMENS, PLEASE INCLUDE THE SOURCE AND TYPE OF SPECIMEN AND PERTINENT CLINICAL DATA.)

SPUTUM SPECIMENS

1. Containers for sputum collection may be obtained from PCCV.
2. Instruct the patient to discard any saliva or "nasal" drainage from their mouth and throat.
3. Have the patient produce sputum by deep coughing (the patient may need instruction) and expectorate the obtained material directly into the sputum cytology collection cup. Most unsatisfactory sputum cytologic studies are a result of not obtaining material from deep within the lungs.
4. Recap the collection cup; attach a completed requisition, place specimen and requisition in a specimen bag for transport. The specimen container must be labeled with two patient identifiers. Send to PCCV for processing, refrigerate until transport.

BRONCHIAL WASHINGS AND LAVAGES

These specimens are usually collected in traps or other containers used during the bronchoscopy procedure. Send the container with the washings, labeled with two patient identifiers, to PCCV with an attached requisition without delay. Refrigerate if pick up is not immediate. Cultures may be obtained on these samples; if so, send a portion of the sample to Centra Laboratory. PCCV does not do cultures.

BRONCHIAL BRUSHINGS

1. Cut-off the tip of the brush, including the plastic sleeve, and put into a small sterile container with sterile saline. Do not let the brush air-dry. Be sure the brush is completely covered with saline.
2. Label the container with two patient identifiers. Send this to PCCV as soon as possible with an attached requisition. Refrigerate until pick up. Laboratory personnel will carry out further processing.
3. Cultures may be obtained on this material, but this may compromise the cytology yield.

GASTROINTESTINAL WASHINGS/BRUSHINGS

Handle these specimens the same as for pulmonary washings and brushings.

BODY FLUIDS

1. Containers for Body Fluid Collections may be obtained from PCCV.
2. Fill the container 1/2 to 2/3 full with the body fluid. The fluid should be added promptly before clotting has occurred.
3. Label the container with the patient's name and a second patient identifier..
4. Place the specimen and a completed examination request requisition in a specimen bag for transport and send to PCCV as soon as possible. Refrigerate if transport is not immediate.
5. Since these containers are not sterile, concurrent culture requests cannot be performed and would require an additional sterile sample or aliquot of fluid to be submitted to Centra Lab.

URINE -VOIDED URINE, BLADDER WASHINGS, BRUSHINGS

1. The preferred specimen is a bladder washing obtained at the time of cystoscopy. Washings are obtained using a balanced salt solution with vigorous barbotage.
2. The washings are then added to an equal volume of 50 percent alcohol, mixed and sent to PCCV. Refrigerate until transport.
3. Appropriate containers for bladder washings are available from PCCV.

4. In the event voided urine cytology is requested, it is important to remember that the urine should be collected only after adequate patient hydration. Do not send the first morning specimen of urine cytology, since cells in such early morning specimens are invariably degenerated and unsuitable for cytologic evaluation. Due to cellular degeneration, voided urine should be sent to the lab ASAP for immediate processing. Otherwise, add an equal volume of 50 percent alcohol and refrigerate immediately. Voided urine cytology is usually discouraged.
5. Handle urinary tract brushings the same as for pulmonary brushings.

CEREBROSPINAL AND SYNOVIAL FLUID

Send the collected specimen, labeled with two patient identifiers, as soon as possible to PCCV with an attached requisition. Call PCCV for courier service and refrigerate until transport.

THIN (FINE) NEEDLE ASPIRATION CYTOLOGY

Have the physician contact a pathologist directly to arrange how the specimens are to be collected and handled after collection. Alternatively, label the desired number of slides with the patient's last name and another patient identifier such as the birth date using a pencil. Label passes; 1,2, etc., label location; (right and left). Prepare air-dried and/or alcohol fixed direct smears from the aspirated material. Be sure to immediately fix those smears to be Papanicolaou stained by placing them in a labeled coplin jar filled with reagent alcohol and place air-dried smears in a labeled cardboard slide holder. Put extra aspirated material in a labeled specimen container of 10 % zinc formalin. Put the entire specimen and completed requisition in a specimen transport bag. Cyst fluid may be sent directly to the laboratory in the syringe but without attached needles, refrigerate unfixed fluid until transport. Slides and zinc formalin may be kept at room temperature. **"Procedure for FNAs performed in the physician's office"** is available upon request.

SMEARS - Tzanck

Direct smears taken from various superficial lesions (skin) should be taken by gently scraping the lesion with the end of a glass slide and gently smearing the material utilizing another glass slide similar to the thin needle aspiration procedures. Every effort for obtaining multiple smears (e.g. up to 6) should be attempted with half of the smears being air dried and the other half being immersed immediately into alcoholic fixative or aerosol spray fixed. Slides should be labeled with the patient's name and preferably their date of birth using a pencil. Specimen may be kept at room temperature.

NIPPLE SECRETION

Smears of nipple secretions may be utilized in the detection of breast cancers, which involve ducts. DO NOT massage or squeeze the breast. Too vigorous manipulation may dislodge and spread malignant cells. The method illustrated will express secretion without trauma.

Materials Needed:

1. Superfrost slides. The slides are identified by writing the patient's name and another patient identifier such as birth date or chart number, on one end with a lead pencil.
2. Bottle of fixative (reagent alcohol, 100% ethanol)

Technique:

1. Open the bottle of fixative and have immediately accessible.
2. 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.
3. Allow a "pea size" drop of fluid to collect upon the nipple tip.
4. Touch the mid-portion of a glass slide to the drop of nipple secretion and then gently place another glass slide over the secretion and gently pull the two slides apart.
5. Immediately drop one slide into the fixative. (Time is of essence here. The smearing of the material across fixative should be accomplished in one motion.) Leave the other slide air-dried.
6. Make as many smears as the amount of material allows.

MISCELLANEOUS

1. Direct smears taken from various lesions (eg. Skin) and from locations should be handled in a fashion similar to gynecologic smears. They should be put immediately in a Coplin jar containing alcohol fixative. These should be delivered directly to the PCCV. Slides must be labeled with two patient identifiers using a lead pencil and may be kept at room temperature.
2. Miscellaneous fluids obtained from various sources should be sent immediately to PCCV with an appropriately completed requisition. Specimen containers must be labeled with two patient identifiers. Refrigerate fluids until transport. Contact a pathologist with any questions. (434-947-3925)

UNACCEPTABLE SPECIMENS:

Specimens that are **improperly** labeled, submitted, or identified are not acceptable. Depending on the nature of the error, the specimen may be returned to the clinician's office for correction and resubmission. A notation is made on the requisition slip identifying any problems. With minor clerical errors, the physician's office may be called for correction and so noted on the slip along with the name of the person spoken to. Any discrepancies will be noted in the laboratory computer system for documentation.

Since most surgical specimens are irreplaceable, every effort will be made to correctly identify and label the specimen. Suboptimal non-gyn Cytology specimens will be processed according to cytology preparation procedures. In cases where specimen adequacy is questionable, the pathologist will be contacted for further instructions. If indicated, the physician's office will be notified if a new specimen must be obtained. In all instances, documentation of all discrepancies and inadequacies will be noted, dated and initialed on the requisition.

It is important to close the specimen container tightly to avoid spillage or contamination.

PCCV's policy is to accept specimens only from physicians or other persons (e.g. Nurse Practitioners, Physician assistants, midwives, etc.) authorized by law.

**ALL QUESTIONS SHOULD BE DIRECTED TO PATHOLOGY CONSULTANTS
AT 434-947-3925.**

2/11/13