



**COLLECTION, PRESERVATION AND
TRANSPORTATION
OF
TISSUE SPECIMENS
GYN CYTOLOGY SPECIMENS
NON-GYN CYTOLOGY SPECIMENS
FLOW CYTOMETRY SPECIMENS
HPV TEST – PCR BY ACCESS-GENETICS
CHLAMYDIA & GONORRHEA – PCR BY ROCHE
HSV I/II & GBS BY ROCHE LIGHTCYCLER
MRSA BY BD GENE OHM**

CYTOLOGY REPORTING TERMINOLOGY

ARKANSAS PATHOLOGY ASSOCIATES, P.A.

Little Rock, AR 72205

Dear Doctor:

In an effort to provide efficient, accurate and timely surgical pathology and cytology services, Arkansas Pathology Associates, P.A., has prepared this manual to serve as a guide for submission of tissue and cytology specimens. Our goal is to aid you in the management of your patients and outlining these procedures will hopefully enable us to do that.

If you have any questions concerns or changes, please contact Arkansas Pathology Associates.

Sincerely,

David N. Pope, M.D., President
Arkansas Pathology Associates, P.A.

CONTENTS

PAGE

GENERAL INFORMATION

A. Location and Telephone Numbers	4
B. Hours of Operation	4
C. Reporting Results/Turnaround Time	4-5
D. Professional Consultation	5
E. Supplies	5

REQUISITION FORMS

A. Surgical Pathology	6
B. Gynecological Cytology	6
C. Non-Gynecological Cytology	6
D. Immunohistochemistry	7-8

SPECIMEN PREPARATION AND HANDLING

A. Anatomical Specimens (Biopsy)	9
B. Bone Marrow	10-11
C. Stones Analysis	12
D. Differential Slide for Evaluation	13
E. Kidney Biopsy	14
F. Muscle Biopsy	15
G. Breast Prognostic Markers	16
H. Convention Pap Smear	17-20
I. ThinPrep Pap Test	21-23
J. The Bethesda System Gynecological Cytology Classification	24-27
K. Non-Gynecologic Cytology Specimens	28-31
L. HPV – ACCESS-GENETICS	32-33
M. Chlamydia & Gonorrhea – Roche COBAS Amplicor STD Assay	34-36
N. HSV I/II & GROUP B STREP-Roche LightCycler	37-39
O. MRSA- BD GeneOhm	40-41
P. Flow Cytometry Specimens	42
Q. Important Notes	43
R. References	44-45

General Information

GENERAL INFORMATION

Location and Telephone Numbers

Arkansas Pathology Associates Laboratories:

6101 St. Vincent Circle

Little Rock, Arkansas 72205

(501) 552-6700

Fax: (501) 552-5513

500 South University

Suite #411

Little Rock, Arkansas 72205

(501) 664-2595

Fax: (501) 664-7134

Arkansas Pathology Associates Administration and Accounting:

#1 St. Vincent Circle

Suite #160

Little Rock, Arkansas 72205

(501) 663-4116

(800) 663-8922

Fax: (501) 663-4301

Hours of Operation

Offices:

Arkansas Pathology Associates Offices are open **Monday through Friday 8:00 am to 5:00 pm.**

*Courier Service:

Courier service is available to most Arkansas locations **Monday through Friday for specimen pickup**, which is best accomplished as part of an established routine run.

*Quick Service:

Arkansas Pathology Associates Quick Service program allows you to send specimens via overnight shipping at no additional cost if you are located outside the courier service areas. Reports can be faxed and/or mailed to your office to ensure quick turnaround time.

*STAT Service:

Arrangements for STAT service can be made upon request by calling.

Reporting Results

Delivery of pathology and/or cytology reports can be made a number of ways:

-Arkansas Pathology Associates Courier Service

-US Mail

-Fax

-Web-based through CareEvolve web portal

Turnaround Time:

Tissue and cytology specimens are processed on the same day as received, with interpretation and reporting accomplished within **24 to 48 hours for most routine cases**. Reporting times may vary depending on the complexity of the case and the need for special stains, consultation, prolonged fixation, etc. Consultations or difficult cases are made locally or sent to other nationally recognized pathology consultants. Physicians are notified when extended delay in reporting is incurred. When a specimen is labeled as a **RUSH** case, the report can be called to your office upon request.

Professional Consultation

Members of our staff are always available to answer your questions, discuss interpretations, consult on unusual cases or arrange for special studies.

Please contact Arkansas Pathology Associates, any of the individual Pathologists when professional consultation is needed.

Supplies

When using Arkansas Pathology Associates for diagnosis of your specimens, supplies will be provided to your office to include:

- pre-filled Formalin containers in various sizes
- pre-filled CytoLyte containers in various sizes
- M4 Media with STD Swab Collection and Transport Kit for Chlamydia & Gonorrhea
- MEMS
- Pap smear kits 1 slide
- Pap smear kits 2 slides
- ThinPrep Vials
- Broom-Like Devices
- Endocervical Brush/Spatula
- Specimen bags
- requisition forms

Other special supplies that you may prefer for your practice may also be supplied upon request. Contact your Customer Service Representative if a supply that you need is not listed.

Requisition Forms



ARKANSAS PATHOLOGY ASSOCIATES P.A.
 PARKVIEW MEDICAL OFFICE BUILDING
 1 St. Vincent Circle • Suite 220
 Little Rock, Arkansas 72205
 Phone (501) 663-4116 • Fax (501) 663-4301
 Internet: www.pathassociates.com

DATE RECEIVED _____

ACCESSION # _____

DATE COLLECTED	PHYSICIAN SIGNATURE / INITIAL	DUPLICATE REPORT TO	RUSH CALL / FAX NUMBER
PATIENT			
PATIENT NAME (LAST)		(FIRST)	(M.I.) SEX
STREET ADDRESS		CITY	STATE ZIP
CHART # / MEDICAL RECORD #	SOCIAL SECURITY NO.	DATE OF BIRTH	TELEPHONE NO. WORK NO.
INSURANCE			
PLEASE ATTACH COPY OF INSURANCE CARD	PRIMARY INSURANCE		SECONDARY INSURANCE
Insurance Company Name			
Insurance Company Street Address			
Insurance Company City, State, Zip			
Patient ID# or SSN			
Group#			
Responsible Party and Relationship			
Employer/Address/Phone#			
HISTOLOGY / NON-GYN CYTOLOGY			
SOURCE			ANCILLARY TESTING
<input type="checkbox"/> Excision <input type="checkbox"/> Incision <input type="checkbox"/> Punch <input type="checkbox"/> Curettage <input type="checkbox"/> Scissor <input type="checkbox"/> Shave <input type="checkbox"/> Other _____ <input type="checkbox"/> Sputum <input type="checkbox"/> Bronch Brush (Right) (Left) <input type="checkbox"/> Bronch Wash (Right) (Left) <input type="checkbox"/> BAL <input type="checkbox"/> Urine (<input type="checkbox"/> Voided <input type="checkbox"/> Catheterized) <input type="checkbox"/> Pleural Fluid <input type="checkbox"/> Ascitic Fluid <input type="checkbox"/> CSF <input type="checkbox"/> Breast Smear (R/L) <input type="checkbox"/> FNA (Source) _____ <input type="checkbox"/> Other _____			<input type="checkbox"/> FISH <input type="checkbox"/> Aerobic Culture <input type="checkbox"/> Anaerobic Culture
Specimen(s) Submitted	A. _____	D. _____	
	B. _____	E. _____	
	C. _____	F. _____	
Clinical History			
Pre-Op Diagnosis		Post-Op Diagnosis	
GYN CYTOLOGY			
METHOD	SOURCE	ANCILLARY TESTING	
<input type="checkbox"/> Conventional Pap Number of Slides _____ <input type="checkbox"/> Liquid-Based Pap Test	<input type="checkbox"/> Cervical/Endocervical <input type="checkbox"/> Vaginal <input type="checkbox"/> Other _____	<input type="checkbox"/> ThinPrep Vial or Digene Cx Sampler <input type="checkbox"/> HPV-High Risk / Low Risk Probe <input type="checkbox"/> HPV-High Risk Probe <input type="checkbox"/> Chlamydia Trachomatis <input type="checkbox"/> Neisseria Gonorrhoea <input type="checkbox"/> Herpes Simplex 1 & 2 <input type="checkbox"/> Group B Strep <input type="checkbox"/> Conen. Or Liquid-Based <input type="checkbox"/> Maturation Index (Vag Smear Only)	
CLINICAL HISTORY			
LMP	PREVIOUS PAP HISTORY		PREVIOUS ABNORMAL BIOPSY
<input type="checkbox"/> Normal Date _____	<input type="checkbox"/> Abnormal Result & Date _____		Result & Date _____
MENSTRUAL / PREGNANCY HISTORY		HORMONAL HISTORY	TREATMENT HISTORY
<input type="checkbox"/> Hysterectomy <input type="checkbox"/> Hysterectomy (cervix intact) <input type="checkbox"/> Pregnant-Wks _____ <input type="checkbox"/> Abnormal Bleeding/Spotting		<input type="checkbox"/> Post Menopausal <input type="checkbox"/> Amenorrhea <input type="checkbox"/> Post Partum-Wks _____ <input type="checkbox"/> Other _____	<input type="checkbox"/> Estrogen Replacement Therapy <input type="checkbox"/> Oral Contraceptive <input type="checkbox"/> Depo-Provera <input type="checkbox"/> Other _____
		<input type="checkbox"/> Cryosurgery <input type="checkbox"/> Conization <input type="checkbox"/> D&C Date _____	<input type="checkbox"/> Leep <input type="checkbox"/> Radiation <input type="checkbox"/> Other _____
ADDITIONAL HISTORY			
<input type="checkbox"/> IUD <input type="checkbox"/> Discharge		<input type="checkbox"/> Colpo Abnormality <input type="checkbox"/> Lesion or Mass	<input type="checkbox"/> Chemotherapy <input type="checkbox"/> Immunosuppressed <input type="checkbox"/> Prior Carcinoma <input type="checkbox"/> Other _____
NOTES			
REFERRING DIAGNOSIS	LOW RISK <input type="checkbox"/> V76.2 <input type="checkbox"/> V76.47 <input type="checkbox"/> V76.49	HIGH RISK <input type="checkbox"/> V15.89	Diagnostic ICD-9 Code _____

FOR MEDICARE PATIENTS WHO HAVE HAD ROUTINE SCREENINGS WITHIN THE LAST TWO YEARS, AN ABN IS REQUIRED.

WHITE - LAB COPY

ARKANSAS PATHOLOGY ASSOCIATES AVAILABLE ANTIBODIES
01/19/04

Immunohistochemistry

Actin (muscle specific)
Actin (smooth muscle)
Alk Protein
Alpha-Fetoprotein
B72.3
BCA 225
Ber-2
Ber-6
BerEp4
CA19.9
CA125
Calcitonin
Calponin
Calretinin
CAM5.2
CEA monoclonal
CEA-polyclonal
Cd1a
Cd3
Cd4
Cd5
Cd8
Cd10
Cd13
Cd20
Cd21
Cd23
Cd30
Cd31
Cd24
Cd43
Cd45RO
Cd45
Cd52
Cd56
Cd57
Cd68
Cd79a
Cd99
Cd117
Cd138
CD2
C-erb-B2
Chromogranin
Chorionic Gonadotropin
Collagen IV
Cyclin D1
Cyclin E
Cytokeratin (AE1/AE3)
Cytokeratin (903, 34 betaE12)

Immunohistochemistry

Cytokeratin (5/6)
Cytokeratin (7)
Cytokeratin (8)
Cytokeratin (20)
Desmin
E-Cadherin
Epithelial Membrane Antigen
Estrogen
Factor VIII
GFAPP15
Glial Fibrillary Acidic Protein
Glycophorin
H-Caldesmon
Helicobacter
Hepatocyte
Her-2.neu
HMR-45
Inhibin
Kappa
Ki67
Lambda
Lysozyme
Marr1
Melanoma (cocktail)
MIB1 (Ki67)
Myeloperoxidase
NSE
P16
P53
P63
PLAP
Pneumocystis Carini
Progesterone
Prostatic Acid Phosphatase
Prostatic Specific Antigen
Renal Cell Carcinoma (RCC)
S-100
Smooth Muscle Heavy Chain
Surfactant ApC
Synaptophysin
TDT
Thyroglobulin
TIA-1
TTF1
Tuberculosis
Villien
Vimentin
Von Willebrand
WU-1

Immunofluorescence

Albumin
IgA
IgG
IgM
C3
C4
C1q
Fibrinogen
Kappa
Lambda

Breast Prognostic Markers
Estrogen
Progesterone
C-erb-B2 (Her-2/ neu)
Ki67
P53
DNA Ploidy

Adenocarcinoma, Unknown
Primary Panel
CEA-monoclonal
CA19.9
CA125
CK7
CK20
BCA225

Hepatoma
(ALL THREE STRONGLY
RECOMMENDED)
AFP
CEA-polyclonal
Hepatocyte

Hodgkins Disease
Cd3
Cd15
Cd30
Cd45

Non-Hodgkin's Lymphoma
Cd3
Cd43 (see comment)
Cd10
Cd20
Ber-2
Ki67

Comment: CD43 is the preferred paraffin marker over Cd5, automatically substituted for Cd5.

BACK

Specimen Preparation and Handling

ANATOMICAL SPECIMENS

Fixation of Tissue Specimen

MATERIALS NEEDED

1. Gloves, lab coat, and eye protection.
2. Tissue container which will hold the specimen, plus adequate fixative.
3. 10% Neutral buffered formalin.
4. Tissue requisition.
5. Transport Bag

SPECIMEN COLLECTION

1. Wear gloves, lab coat and eye protection
2. Properly label specimen container with patient's name and source of specimen
3. Collect tissue immediately from physician and place into container with at least an equal volume of fixative. Make sure container does not leak.
4. Complete tissue requisition with the following information:
 - ◆ Patient's name, age, date of birth, social security number, and sex
 - ◆ Address
 - ◆ Doctors Office or Hospital and phone number
 - ◆ Insurance Information
 - ◆ Relevant Clinical History
 - ◆ Source of Tissue
 - ◆ Doctor's Signature

TRANSPORT SPECIMEN

1. Place specimen in transport bag and seal.
2. Place the requisition in the pouch outside the sealed bag.
3. Transport specimens to the laboratory by courier.
4. If specimens are to be mailed, contact the laboratory for instructions.

BONE MARROW FIXATION AND HANDLING

MATERIALS NEEDED

1. Gloves, lab coat, and eye protection.
2. Tissue container which will hold the specimen.
3. 10% Neutral Formalin.
4. Transport Bag.
5. Frosted end slides for blood and bone marrow smears.
6. Bone marrow study or differential slide evaluation requisition slip, which includes blood indices, iron levels, etc.

BONE MARROW SPECIMEN COLLECTION

1. Wear gloves, lab coat, and eye protection.
2. Properly label specimen container with patient's name and source of specimen.
3. Put Core biopsy in Formalin
4. Aspirate Marrow
5. Place 1 to 2 mL EDTA (lavender top) tube and mix; we can make smears from this if necessary.
6. Transport with wet ice or cool pack DO NOT FREEZE.
7. If patient may have myelodysplasia, acute leukemia or CML, ½ -1mL of marrow should be place in a green top heparin tube in case cytogenetics is necessary (must be sodium heparin, not Lithium heparin).
8. Always send peripheral blood smear and copy of CBC report (if there are leukemia cells or other abnormal cells in the peripheral blood, 1 mL of fresh blood in cytocheck solution would be helpful).
9. Please send pertinent clinical information. This will enable us to more rationally and economically select antibodies.
10. IF YOU HAVE QUESTIONS, CALL DR. JOHN BRINEMAN, DR. JAMES WALDRON OR ANY OTHER PATHOLOGIST AT (501) 552-2966.
11. Complete the requisition with the following information.
 - ◆ Patient's name, age, birthdate, social security number, and sex
 - ◆ Address

- ◆ Doctors Office or Hospital and phone number
 - ◆ Insurance Information
 - ◆ Relevant Clinical History
 - ◆ Source of Tissue
 - ◆ Doctor's Signature
 - ◆ Peripheral blood indices, iron levels, etc
12. Collect a peripheral blood smear to be sent along with the aspirate and biopsy.
 13. Label slides with patient's name.

TRANSPORT SPECIMEN

1. Place formalin specimens in one transport bag and all other tubes and slides in a second bag. Please staple bags together.
2. Place the requisition in the pouch outside either of the sealed bags.
3. Transport specimens to the laboratory by courier.
4. If specimens are to be mailed, contact the laboratory for instructions.

STONES FOR ANALYSIS

MATERIALS NEEDED:

1. Gloves, lab coat, and eye protection.
2. Tissue container which will hold the specimen.
3. Tissue requisition.
4. Transport Bag.

SPECIMEN COLLECTION

1. Wear gloves, lab coat and eye protection.
2. Properly label specimen container with patient's name and source of specimen
3. Collect tissue from physician and place into container *without fixative*.
4. Complete tissue requisition with the following information:
 - ◆ Patient's name, age, birthdate, social security number, and sex
 - ◆ Address
 - ◆ Doctors Office or Hospital and phone number
 - ◆ Insurance Information
 - ◆ Relevant Clinical History; please state if chemical analysis is requested
 - ◆ Source of Tissue
 - ◆ Doctor's Signature

TRANSPORT SPECIMEN

1. Place specimen in transport bag and seal.
2. Place the requisition in the pouch outside the sealed bag.
3. Transport specimens to the laboratory by courier.
4. If specimens are to be mailed, contact the laboratory for instructions.

PERIPHERAL BLOOD SMEAR FOR EVALUATION

MATERIAL NEEDED

1. Microscope Slides
2. Requisition
3. Slide holder
4. Transport bag.

COLLECTION

1. Make peripheral blood smear on slides. Please do not stain.
2. Label slides with patient's name.
3. Place slides into slide holder
4. Label holder with patient's name and specimen
5. Include a copy of the most recent CBC results and any other pertinent lab results.
6. Complete requisition to include:
 - ◆ Patient's name, age, birthdate, social security number, and sex
 - ◆ Address
 - ◆ Doctor's Office or Hospital
 - ◆ Diagnosis
 - ◆ Brief Patient History
 - ◆ Comments

TRANSPORT SPECIMEN

1. Place slides and EDTA specimen in transport bag and seal.
2. Place the requisition in the pouch outside the sealed bag.
3. Transport specimens to the laboratory by courier.

4. If specimens are to be mailed, contact the laboratory for instructions.

KIDNEY BIOPSY (for medical renal disease)

MATERIALS NEEDED:

1. Gloves, lab coat, and eye protection.
2. Tissues container which will hold the specimen.
3. 10% Neutral buffered formalin.
4. Gluteraldehyde
5. Michel's Fixative
6. Tissue requisition.
7. Transport Bag

SPECIMEN COLLECTION

1. Wear gloves, lab coat and eye protection
2. Properly label specimen container with patient's name and source of specimen
3. Immediately after biopsy is taken, tissue should be divided as follows:
4. 1 to 2 mm fragments of kidney in gluteraldehyde for E.M.
5. 2 or 3 slightly larger fragments in Michel's fixative for immunofluorescence.
6. The remaining specimen, for routine processing in zinc formalin.
7. Complete tissue requisition with the following information:
 - ◆ Patient's name, age, date of birth, social security number, and sex
 - ◆ Address
 - ◆ Doctors Office or Hospital and phone number
 - ◆ Insurance Information
 - ◆ Relevant Clinical History
 - ◆ Source of Tissue
 - ◆ Doctor's Signature

TRANSPORT SPECIMEN

1. Place specimen in transport bag and seal.
2. Place the requisition in the pouch outside the sealed bag.

3. Transport specimens to the laboratory by courier.

MUSCLE BIOPSY

MATERIALS NEEDED:

1. Gloves, lab coat, and eye protection.
2. Tissue container which will hold the specimen.
3. Tissue requisition.
4. Transport Bag.

SPECIMEN COLLECTION

1. Wear gloves, lab coat and eye protection.
2. Properly label specimen container with patient's name and source of specimen
3. Collect tissue from physician.

The muscle and/or nerve biopsy must be fresh. **Do not contaminate with formalin.**

IF THE SPECIMEN CAN NOT BE DELIVERED IMMEDIATELY TO A PATHOLOGIST:

Wrap the specimen(s) in gauze which has been **lightly dampened** with saline. Never immerse a **muscle biopsy** specimen in saline or fixative of any kind before submitting to Arkansas Pathology Associates. Place the lightly saline dampened gauze wrapped specimen in a container such as a specimen cup and place on sufficient ice for transport. Please use a screw cap or similar container such that water from the melted ice cannot enter.

4. Complete tissue requisition with the following information:
 - ◆ Patient's name, age, birthdate, social security number, and sex
 - ◆ Address
 - ◆ Doctors Office or Hospital and phone number
 - ◆ Insurance Information
 - ◆ Relevant Clinical History
 - ◆ Source of Tissue
 - ◆ Doctor's Signature

TRANSPORT SPECIMEN

5. Call for pickup immediately.
6. Specimen cup should remain on ice until delivered to Arkansas Pathology Associates. Make sure completed requisition accompanies specimen.
7. Transport specimens to the laboratory by courier.

BREAST PROGNOSTIC MARKERS

SPECIMEN REQUIRED:

1. Formalin fixed paraffin embedded tissue block
2. 1 - H & E slide per tissue block
3. Completed pathology report and completed Immunohistochemistry staining request form.

Provide prognostic information for breast tumors.

How to send specimens

Preprinted requisition forms will be sent upon request, and should be completed according to the instructions. Free overnight specimen transportation is offered to ensure reliable and rapid delivery of specimens from your laboratory to Arkansas Pathology Associates. Please contact us toll-free at (800) 663-8922 so that we may send you a packet containing preprinted requisition forms, prepaid airbills and padded envelopes for transporting specimens.

Do's

- Wrap blocks individually in gauze.
- Send slides in hard plastic, top loading slide containers.
- Place blocks and slides in padded envelopes provided by Arkansas Pathology Associates.
- Ship specimens via APA courier or a traceable express mail service (FedEx, UPS), standard overnight delivery.
- In warm weather, send blocks on ice (1 to 2 small icepacks).

Don'ts

- Don't send slides in side-loading plastic containers or cardboard mailers.
- Don't mail specimens by regular U.S. Mail.

GYNECOLOGIC CYTOLOGY SPECIMENS

Conventional Pap Smear

Specimen Collection, Adequacy, Requisition & Transportation

Patient Preparation

To optimize collection conditions, a woman should:

1. Schedule an appointment approximately two weeks (10-18 days) after the first day of her last menstrual period.
2. Not douche 48 hours prior to the test.
3. Not use tampons, birth control foams, jellies or other vaginal creams or vaginal medications for 48 hours prior to the test.
4. Refrain from intercourse 48 hours prior to the test.

Test Requisition

Under the supervision and guidance of the physician, a laboratory requisition must be legibly and accurately filled out before obtaining the cellular sample. The laboratory requisition is the main communication link between the physician and the laboratory. The requisition form should have the following information as required by CLIA '88.

1. Patient's name (any name change in the past 5 years should be noted)
2. Age and/or date of birth
3. Menstrual status (LMP, hysterectomy, pregnant, postpartum, hormone therapy)
4. Previous Pap history, abnormal cervical cytology results, previous treatment, biopsy surgical procedure and results.
5. Source of specimen, e.g. cervical, vaginal

Appropriate clinical history provided by the physician on the requisition should include:

1. Hormone/contraceptive use
2. Relevant clinical findings (abnormal bleeding, grossly visible lesion, etc.)

Patient's SSN, physician and health facility names, insurance information and medicare information if applicable.

Labeling the Sample

1. Write the patient's name on the frosted end of the slide.
2. Use an ordinary lead pencil. Do not use an ink pen. It washes off in the staining process.

Visualization of the Cervix for Collection of an Adequate Sample

1. Collection of a cervical cytology specimen is usually performed with the patient in the dorsolithotomy position.
2. A sterile, or single-use bivalve speculum of appropriate size is inserted into the vagina without lubrication. Warm water may be used to facilitate insertion of the speculum. The position of the speculum should allow for complete visualization of the os and ectocervix.
3. The transformation zone is the site of origin for most cervical neoplasia and should be the focus of cytology specimen collection. The transformation zone may be easily visualized or may be high in the endocervical canal. Location varies not only from patient to patient, but in an individual over time. Factors producing variation include changes in vaginal pH, hormonal changes including pregnancy, childbirth, menopausal status, and hormonal therapy.
4. In postmenopausal patients or women who have received radiation therapy, cervical stenosis may prevent visualization of the transformation zone. It remains important to sample the endocervix in these patients. This may require more extensive clinical procedures.
5. If a patient has had a hysterectomy, a vaginal sample is sufficient, with particular attention to sampling the vaginal cuff.

Techniques for Sample Collection

Spatula and Endocervical Brush Technique

1. The ectocervix should be sampled before the endocervix/transformation zone. First, a sample of the ectocervix is taken using a plastic (or wooden) spatula. The notched end of the spatula that corresponds to the contour of the cervix is rotated 360° around the circumference of the cervical os.
2. The sample on the spatula is spread evenly and thinly lengthwise down one half of the labeled slide surface, using a single uniform motion. Immediately spray with fixative. Follow the manufacturer's instructions on the container and package insert. Generally, spray fixatives should be 6-10 inches from the glass slide when applied.
3. Sampling of the endocervix requires insertion of the endocervical brush into the endocervical canal until the bristles closest to the hand are visible. The brush is rotated 45-90° and removed.
4. The endocervical brush is then rolled along the remaining half of the labeled slide surface by turning the brush handle and slightly bending the bristles with gentle pressure. Immediately spray with fixative.

Broom-Like Device Technique

1. The ectocervix and endocervix are collected simultaneously. The central bristles of the broom are inserted into the endocervical canal until the lateral bristles bend fully against the ectocervix. The sampling device is rotated 360° in the same direction five (5) times while maintaining gentle pressure.
2. The broom is removed and with a single paint stroke motion the cellular sample is transferred down the long axis of the labeled surface of the slide. The broom is turned over and the paint stroke motion is repeated over the same area. Immediately spray with fixative. Follow the manufacturer's instructions on the container and package insert. Generally, spray fixatives should be 6-10 inches from the glass slide when applied.

Transporting Specimen

1. Place slide(s), when dry, in slide holder.
2. Place slide holder with slide and completed requisition form in a specimen transport bag.

3. If the specimen is not transported by courier, but by mail, request a special mailer from the cytology laboratory.

ThinPrep Pap Test

Specimen Collection, Adequacy, Requisition & Transportation

Patient Preparation

To optimize collection conditions, a woman should:

1. Schedule an appointment approximately two weeks (10-18 days) after the first day of her last menstrual period.
2. Not douche 48 hours prior to the test.
3. Not use tampons, birth control foams, jellies or other vaginal creams or vaginal medications for 48 hours prior to the test.
4. Refrain from intercourse 48 hours prior to the test.

Test Requisition

Under the supervision and guidance of the physician, a laboratory requisition must be legibly and accurately filled out before obtaining the cellular sample. The laboratory requisition is the main communication link between the physician and the laboratory. The requisition form should have the following information as required by CLIA '88.

1. Patient's name (any name change in the past 5 years should be noted)
2. Age and/or date of birth
3. Menstrual status (LMP, hysterectomy, pregnant, postpartum, hormone therapy)
4. Previous Pap history, abnormal cervical cytology results, previous treatment, biopsy or surgical procedure and results
5. Source of specimen, e.g. cervical, vaginal

Appropriate clinical history provided by the physician on the requisition should include:

1. Hormone/contraceptive use
2. Relevant clinical findings (abnormal bleeding, grossly visible lesion, etc.)

Patient's SSN, physician and health facility names, insurance information and medicare information if applicable.

Labeling the Sample

Write the patient's name on the PreservCyt Solution vial.

Visualization of the Cervix for Collection of an Adequate Sample

1. Collection of a cervical cytology specimen is usually performed with the patient in the dorsolithotomy position.
2. A sterile, or single-use bivalve speculum of appropriate size is inserted into the vagina without lubrication. Warm water may be used to facilitate insertion of the speculum. The position of the speculum should allow for complete visualization of the os and ectocervix.
3. The transformation zone is the site of origin for most cervical neoplasia and should be the focus of cytology specimen collection. The transformation zone may be easily visualized or may be high in the endocervical canal. Location varies not only from patient to patient, but in an individual over time. Factors producing variation include changes in vaginal pH, hormonal changes including pregnancy, childbirth, menopausal status, and hormonal therapy.
4. In postmenopausal patients or women who have received radiation therapy, cervical stenosis may prevent visualization of the transformation zone. It remains important to sample the endocervix in these patients. This may require more extensive clinical procedures.
5. If a patient has had a hysterectomy, a vaginal sample is sufficient, with particular attention to sampling the vaginal cuff.

Techniques for Sample Collection

Spatula and Endocervical Brush Technique

1. The ectocervix should be sampled before the endocervix/transformation zone. First, a sample of the ectocervix is taken using a plastic spatula. The notched end of the spatula that corresponds to the contour of the cervix is rotated 360° around the circumference of the cervical os.
2. The spatula is rinsed in the PreservCyt Solution vial by swirling the spatula vigorously in the vial 10 times.
3. Sampling of the endocervix requires insertion of the endocervical brush into the endocervical canal until the bristles closest to the hand are visible. The brush is rotated 45-90° and removed.
4. The brush is rinsed in the PreservCyt Solution vial by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. If material still remains on the brush, take the spatula and scrape the material from the brush while holding it in the PreservCyt Solution vial. Discard the brush and spatula.
5. The vial cap is tightened so that the torque line on the cap passes the torque line on the vial.

Broom-Like Device Technique

1. The ectocervix and endocervix are collected simultaneously. The central bristles of the broom are inserted into the endocervical canal until the lateral bristles bend fully against the ectocervix. The sampling device is rotated 360° in the same direction five (5) times while maintaining gentle pressure.
2. The broom is removed and rinsed into the PreservCyt Solution vial by pushing the broom into the bottom of the vial 10 times, forcing the bristles apart. As a final step, the broom is vigorously swirled to further release material. Discard the device.
3. The vial cap is tightened so that the torque line on the cap passes the torque line on the vial.

Transporting Specimen

1. The vial is placed in the specimen transport bag and sealed. The requisition is placed in the pouch outside the sealed bag.
2. The specimens are transported to the cytology laboratory by courier. If the specimens are to be mailed, contact the cytology laboratory for instructions.

THE BETHESDA SYSTEM 2001

GYNECOLOGIC CYTOLOGY CLASSIFICATION

SPECIMEN ADEQUACY

SATISFACTORY

Satisfactory for evaluation but may include any quality indicators, e.g., absence of endocervical component, partially obscuring blood, inflammation, etc.

UNSATISFACTORY

Unsatisfactory for evaluation of epithelial abnormality because of reason specified and should be repeated.

DESCRIPTIVE INTERPRETATION

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY

Negative for squamous cell abnormalities or glandular cell abnormalities. Organisms and other non-neoplastic findings are included under this category.

ORGANISMS:

- Trichomonas vaginalis
- Fungal organisms morphologically consistent with Candida spp.
- Bacteria morphologically consistent with Actinomyces spp.
- Cellular changes consistent with Herpes simplex virus

OTHER NON-NEOPLASTIC FINDINGS

- Reactive changes

- Radiation changes
- Parakeratosis and/or hyperkeratosis
- Atrophy
- Endometrial cells present in a postmenopausal woman

EPITHELIAL CELL ABNORMALITIES

SQUAMOUS CELL

- Atypical squamous cells
 - of undetermined significance (ASC-US)
 - cannot exclude HSIL (ASC-H)
- Low grade squamous intraepithelial lesion (LSIL)
 - encompassing: HPV/mild dysplasia/CIN 1
- High grade squamous intraepithelial lesion (HSIL)
 - encompassing: moderate and severe dysplasia, CIS/CIN 2 and CIN 3
 - with features suspicious for invasion (if invasion is suspected)
- Squamous cell carcinoma

GLANDULAR CELL

- Atypical
 - endocervical cells (NOS or specify in comments)
 - endometrial cells (NOS or specify in comments)
 - glandular cells (NOS or specify in comments)
- Atypical
 - endocervical cells, favor neoplastic
 - endometrial cells, favor neoplastic
 - glandular cells, favor neoplastic
- Endocervical adenocarcinoma *in situ*
- Adenocarcinoma
 - endocervical
 - endometrial
 - extrauterine
 - not otherwise specified (NOS)

OTHER MALIGNANT NEOPLASMS (SPECIFY)

MATURATION INDEX

The Maturation Index (MI) expresses the relationship of parabasal to intermediate to superficial squamous cells. The MI will be reported as relative percentages of these cells and written as a ratio: parabasals %: intermediates %: superficiaals % . The response of the squamous epithelium of the vagina to various hormonal stimuli can show great variations from patient to patient. The only two absolute cell patterns are (1) a predominance of superficial cells that indicates the presence of estrogen and a (2) a predominance of parabasal cells that indicates absence of estrogenic stimulation.

MATURATION INDEX MUST BE TAKEN FROM THE LATERAL VAGINAL WALL

MATERIALS NEEDED

1. Microscopic Slide with Frosted End - Write the patient's name on the label end of the slide (frosted side) with an ordinary lead pencil. Also, indicate on the label (V) for vaginal smear if a cervical/endocervical smear is being collected also.
ThinPrep Vial – Write the patient's name on the label. If a cervical/endocervical sample is being collected as well, place samples in two separate vials. Write the specimen source on each vial.
2. Cytology Spray Fixative – Use this fixative for conventional slide method.
3. Speculum – Use water, not lubricant, on speculum and shake off excess.
4. Collection Device – Wooden or Plastic Spatula
5. Gyn Cytology Form – Complete the form with patient information and mark Maturation Index under Ancillary Testing.
6. Slide Holder for Glass Slide (Conventional Method)
7. Specimen Transport Bag – Place specimen in bag and seal. Place the completed requisition form in the pouch outside the sealed bag.

SPECIMEN COLLECTION AND PRESERVATION

Vaginal Scrape

1. Scrape the lateral wall of middle third of vagina.

2. Conventional Method - Spread evenly on slide and immediately spray with fixative. Allow to dry (5-10 minutes) and place in a slide holder. Mark slide as V (vaginal) if a cervical/endocervical smear is submitted also.
ThinPrep Method – Place specimen in ThinPrep PreserCyt Vial. Write specimen source (Vaginal) on the label if a cervical/endocervical specimen is submitted also.

NONGYNECOLOGIC CYTOLOGY SPECIMENS

MATERIALS NEEDED

1. Instruments for Collection
2. APA Requisition Form - Complete the form with the following information; patient's name, age, sex, physician's name and health facility submitting the specimen, billing information, date of collection, source of specimen and clinical history.
3. Container with Cytology Fixative – CytoLyt Solution for fluid specimens and cytology spray fixative for smear preparation specimens. All fluid cytology specimens must be collected in cytology fixative or add the fixative shortly after collection. The volume of the fixative should be approximately the same or in excess of the volume of the specimen. Write the patient's name, source of specimen and doctor's name on the specimen container label.
4. Microscopic Glass Slides with Frosted End and Slide Holder for prepared slide specimens - Write the patient's name on the frosted end of the slide with an ordinary lead pencil. Do not use an ink pen. It washes off in the staining procedure.
5. Specimen Transport Bag

SPECIMEN COLLECTION AND PRESERVATION

Sputum

When a pulmonary lesion is suspected, a complete sputum series should be examined. This consists of a fresh morning specimen each day for three days. A post bronchoscopy specimen may be included in the series.

Method I: Early Morning Spontaneous Deep Cough Technique

1. Patient is given a labeled specimen collection cup containing CytoLyt Solution. One cup should be provided each morning for three consecutive days.
2. Caution the patient that only sputum is to be collected, not material from sinus drainage or saliva.
3. Patient should rinse mouth with water.
4. Instruct the patient to cough deeply several times the first hour after awakening and expectorate into the collection cup.
5. Place lid tightly on specimen cup and shake for a few seconds.

Method II: Sputum Induction Technique

If the patient is non-productive of satisfactory specimens, the induction technique should be administered. Various aerosol instruments are available and instructions for use accompany each. The object of the aerosolization is to introduce a significant amount of water into the lungs. Irritants or mucolytic agents can be added.

1. Explain the procedure to the patient.
2. Before beginning, ask the patient to clear his throat and wash his mouth out with water.
3. Administer the aerosol.
4. Sputum should be expectorated into a collection cup containing CytoLyt Solution.
5. Sometimes, if an adequate sample cannot be produced using an aerosol, the patient will have a productive cough within the next 24 hours. The patient should be given a collection cup containing CytoLyt Solution and instructions for collecting a sputum sample during this period of time.

Bronchial Washings and Bronchoalveolar Lavage

After the specimen is collected, put the entire specimen into a collection cup of CytoLyt Solution. The volume of the fixative should be approximately the same or in excess of the volume of the specimen.

Bronchial Brushing

Method I

Immediately after the brush is withdrawn from the bronchoscope, cut the wire a short distance from the brush and insert into CytoLyt Solution.

Method II

Direct smears may be made by quickly rotating the brush gently on a glass slide labeled with the patient's name. Fix immediately with cytology spray fixative. Follow the directions on the spray can. Allow to dry (5 to 10 minutes) and place in slide container for transportation to the cytology laboratory.

Our laboratory prefers the first method rather than the slide preparation technique.

Breast Nipple Secretions

Nipple secretions should be collected by applying the slide directly to the nipple and then smearing the material collected. Immediately fix the smear with cytology spray fixative. Follow the directions on the spray can. Allow to dry (5 to 10 minutes) and place in slide container for transportation to the cytology laboratory.

Gastric and Esophageal Brushing

Method I

Immediately after the brush is withdrawn from the instrument, cut the wire a short distance from the brush and insert into CytoLyt Solution.

Method II

Direct smears may be made by quickly rotating the brush gently on a glass slide labeled with the patient's name. Fix immediately with cytology spray fixative. Follow the directions on the spray can. Allow to dry (5 to 10 minutes) and place in slide container for transportation to the cytology laboratory.

Our laboratory prefers the first method rather than the slide preparation technique.

Gastric and Esophageal Washings

After the specimen is collected, put the entire specimen into a collection cup of CytoLyt Solution. The volume of the fixative should be the same or in excess of the volume of the specimen.

Body Cavity Fluids, Cerebrospinal Fluid, Urine and Other Fluids

After the specimen is collected, add the specimen to an approximately equal volume of CytoLyt Solution.

Body Cavity Fluids and Other Fluids: If the volume of specimen exceeds 30 ml, add only 30 ml of the specimen to the 30 ml of fixative in the collection cup and submit the remaining specimen unfixed. Keep the unfixed portion of specimen refrigerated until picked up by the courier.

Urine: Add the specimen to the 30 ml of fixative in the CytoLyt Solution collection cup. If there is more specimen than the collection cup will hold, discard the remaining specimen.

Urine for UroVysion studies

Collect urine specimen as specified in the above nongynecologic cytology specimens. Mark FISH orders under ancillary testing on requisition form.

Fine Needle Aspiration

Method I

1. Have nearby a collection cup with CytoLyt Solution.
2. After the aspiration biopsy has been completed and the needle withdrawn, disconnect the needle from the syringe, fill the syringe with air, reconnect syringe and needle and expel the specimen into the CytoLyt Solution.
3. Then draw the fixative into the syringe to wash out remaining specimen. Expel into collection cup.

Method II

1. After the aspiration biopsy has been completed, the needle is removed from the syringe and air is drawn into the syringe barrel.

2. The needle is reconnected to the syringe. The material in the needle is carefully expelled in a single drop toward the label end of a glass slide. The open edge of the needle bevel is directed down toward the slide during expression of material.
3. Another slide is placed face to face with slide containing specimen. The specimen is allowed to spread without applying pressure. If tissue fragments are present, they may be flattened with very slight pressure. The ends are grasped and the slides are pulled apart in opposite directions.

CAUTION: When disconnecting and reconnecting the needle, use a needle recapping device.

4. Spray the smear immediately with cytology spray fixative. Follow the directions on the spray can. Allow to dry (5 to 10 minutes) and place in slide container for transportation to the cytology laboratory.

Our laboratory prefers Method I rather than the slide preparation technique.

TRANSPORTATION

1. Place specimen in a specimen transport bag and seal. Place the completed requisition in the pouch outside the sealed bag.
2. Transport specimens to the cytology laboratory by courier. If specimens are to be mailed, contact the cytology laboratory for instructions.

HPV – PCR BY ACCESS-GENETICS

PRECAUTION:

Collect DNA specimen prior to application of acetic acid or iodine if a colposcopy will be performed. Note: Only ThinPrep Vials may be used for HPV testing.

ThinPrep Pap Test Procedure

MATERIALS NEEDED

1. Vial of ThinPrep PreservCyt Solution – Write the patient’s name on the vial.
2. Collection Devices – Broom-Like Device or Endocervical Brush/Spatula
3. Speculum – Use water, not lubricant, on speculum and shake off excess.
4. APA Requisition Form – Complete the form with the following information: patient’s name, age or date of birth, SSN, source, LMP, menstrual/pregnancy history, previous Pap history, treatment history, physician’s name and billing information. Mark the Test Requested – HPV on the form.
5. Specimen Transport Bag – Place specimen in the bag and seal. Place the requisition form in the pouch part of the bag.

SPECIMEN COLLECTION AND PRESERVATION

1. Specimens should be collected in the same manner as a ThinPrep Pap Test.
2. PreservCyt Solution specimens may be held for up to three weeks following collection and prior to processing for the HPV Test.

TRANSPORTATION

1. Place the vial in the specimen transport bag and seal. Place the requisition form in the pouch outside the sealed bag.
2. Transport specimens to the cytology laboratory by courier. If specimens are to be mailed, contact the cytology laboratory for instruction.

Chlamydia & Gonorrhoeae-Roche COBAS Amplicor STD ASSAY

PRECAUTIONS

1. Use only the swabs and transport tubes that come with the M4 STD Swab Collection and Transport Kit, PreservCyt.
2. Transport Tubes in which any of the transport buffer has spilled out should not be used.
3. Do not use M4 STD Swab Specimen Collection and Transport Kit or PreservCyt beyond expiration date.
4. This product contains sodium azide as a preservative and is classified as HARMFUL (see MSDS for details). Sodium azide has been reported to form lead or copper azide in plumbing and may explode on percussion, such as hammering. Flush drains thoroughly with water after disposing of solutions containing sodium azide.
5. Some spermicidal agents, feminine powder sprays, powdered gloves, and lubricants may interfere with PCR Assays and should therefore not have been used prior to collection of swab specimens.
6. Swab specimens that are moderately bloody should not be tested since they may cause inhibition in PCR Assays.
7. Swab specimens that are grossly mucoid should not be tested since they may cause inhibition in PCR Assays. Therefore, it is important that the exocervix be wiped free of mucus prior to collection of the swab specimen to ensure optimal specimen collection.
8. The effects on PCR Assays by other potential variables such as vaginal discharge, use of tampons, douching, etc., and specimen collection variables have not been determined.

Endocervical Swab Procedure

MATERIALS NEEDED

1. M4 STD Swab Specimen Collection and Transport Kit or PreservCyt ThinPrep Vial Collection.
2. Speculum – Use water, not lubricant, on speculum and shake off excess.
3. APA Requisition Form – Complete the form with the following information: patient's name, age or date of birth, SSN, source of specimen, LMP, menstrual/pregnancy history, previous Pap history, treatment history, physician's name and billing information. Mark the Test Requested – Chlamydia and/or Gonorrhea . If the requisition form you are using does not have a place to request this test, write it on.
4. Specimen Transport Bag – Place specimen in the bag and seal. Place the requisition form in the pouch outside the sealed bag.

SPECIMEN COLLECTION AND PRESERVATION

1. Remove excess mucus from the exocervix with the large-tipped cleaning swab provided in the M4 STD Swab Collection Kit and discard. NOTE: DO NOT USE THE LARGE-TIPPED CLEANING SWAB FOR SPECIMEN
2. Insert the small-tipped specimen swab into the endocervix and rotate the swab for 15 to 30 seconds to ensure adequate sampling.
3. Verify that all Swab Specimen Transport Buffer is at the bottom of the tube. If necessary, tap or shake the solution down to the bottom of the tube. Unscrew the cap of the transport tube, insert the swab into the transport tube and break the swab at the score line. Replace the cap securely making sure that the swab fits into the cap and then screw on the cap until it clicks into place.
4. Label the transport tube with the patient's name and date of collection.

TRANSPORTATION

1. Place the tube in the specimen transport bag and seal. Place the requisition form in the pouch outside the sealed bag.
2. Transport specimens to the cytology laboratory by courier. If specimens are to be mailed, contact the cytology laboratory for instructions.
3. Swab specimens can be shipped to the laboratory at 2-30°C. Swab specimens must arrive at the laboratory within 24 hours of shipment.

HSV I/II AND GROUP B STREP BY ROCHE LIGHTCYCLER

PRECAUTIONS

1. Use only the swabs and transport tubes that come with the M4 STD Swab Collection and Transport Kit, PreservCyt.
2. Transport Tubes in which any of the transport buffer has spilled out should not be used.
3. Do not use M4 STD Swab Specimen Collection and Transport Kit or PreservCyt beyond expiration date.
4. This product contains sodium azide as a preservative and is classified as HARMFUL (see MSDS for details). Sodium azide has been reported to form lead or copper azide in plumbing and may explode on percussion, such as hammering. Flush drains thoroughly with water after disposing of solutions containing sodium azide.
5. Some spermicidal agents, feminine powder sprays, powdered gloves, and lubricants may interfere with PCR Assays and should therefore not have been used prior to collection of swab specimens.
6. Swab specimens that are moderately bloody should not be tested since they may cause inhibition in PCR Assays.
7. Swab specimens that are grossly mucoid should not be tested since they may cause inhibition in PCR Assays. Therefore, it is important that the exocervix be wiped free of mucus prior to collection of the swab specimen to ensure optimal specimen collection.
8. The effects on PCR Assays by other potential variables such as vaginal discharge, use of tampons, douching, etc., and specimen collection variables have not been determined.

Endocervical Swab Procedure

MATERIALS NEEDED

1. M4 STD Swab Specimen Collection and Transport Kit or PreservCyt ThinPrep Vial Collection.
2. Speculum – Use water, not lubricant, on speculum and shake off excess.
3. APA Requisition Form – Complete the form with the following information: patient's name, age or date of birth, SSN, source of specimen, LMP, menstrual/pregnancy history, previous Pap history, treatment history, physician's name and billing information. Mark the Test Requested – HSV I/II or Group B Strep (GBS) . If the requisition form you are using does not have a place to request this test, write it on.
4. Specimen Transport Bag – Place specimen in the bag and seal. Place the requisition form in the pouch outside the sealed bag.

SPECIMEN COLLECTION AND PRESERVATION

1. HSV I/II COLLECTION: Remove excess mucus from the exocervix with the large-tipped cleaning swab provided in the M4 STD Swab Collection Kit and discard. NOTE: DO NOT USE THE LARGE-TIPPED CLEANING SWAB FOR SPECIMEN. If there is a specific lesion in the vaginal area, please swab that lesion also.
2. Insert the small-tipped specimen swab into the endocervix and rotate the swab for 15 to 30 seconds to ensure adequate sampling. Group B Strep collection is the same as HSV I/II except with the addition of the lower rectal/anal area can also be swabbed with the same swab after the endocervix area is swabbed.
3. Verify that all Swab Specimen Transport Buffer is at the bottom of the tube. If necessary, tap or shake the solution down to the bottom of the tube. Unscrew the cap of the transport

tube, insert the swab into the transport tube and break the swab at the score line. Replace the cap securely making sure that the swab fits into the cap and then screw on the cap until it clicks into place.

4. Label the transport tube with the patient's name and date of collection.

TRANSPORTATION

1. Place the tube in the specimen transport bag and seal. Place the requisition form in the pouch outside the sealed bag.
2. Transport specimens to the cytology laboratory by courier. If specimens are to be mailed, contact the cytology laboratory for instructions.
3. Swab specimens can be shipped to the laboratory at 2-30°C. Swab specimens must arrive at the laboratory within 24 hours of shipment.

MRSA BY BD GENE OHM

PRECAUTIONS

1. Use only the Stuart's medium single swabs for collection.
2. Refrigerate swabs if transport will be delayed more than 24 hours.

MATERIALS NEEDED:

1. Stuart's Medium Single Swab
2. APA Requisition Form – Complete the form with the following information: patient's name, age or date of birth, SSN, source of specimen, physician's name and billing information. Write MRSA by PCR on requisition as the Test Requested.
3. Specimen Transport Bag – Place specimen in the bag and seal. Place the requisition form in the pouch outside the sealed bag.

SPECIMEN COLLECTION AND PRESERVATION

1. Insert the swab into the left nostril and rotate the swab 5 times and then place same swab in right nostril and rotate 5 times. Do not place swab far into nostril. Replace swab in swab holder.
2. Label the swab container with the patient's name and date of collection.

TRANSPORTATION

1. Place the swab in the specimen transport bag and seal. Place the requisition form in the pouch outside the sealed bag.
2. Transport specimens to the laboratory by courier.

3. Swab specimens can be shipped to the laboratory at 2-8°C. Swab specimens must arrive at the laboratory within 24 hours of shipment.

FLOW CYTOMETRY SPECIMENS

Specimen Collection, Preservation, and Transportation

Platelet Antibodies: Collect two purple top tubes and store at room temperature. **Do not add to cytochex.** Send at room temperature.

CD4 Panel: Collect 1-2 purple top tubes and store at room temperature. **DO NOT REFRIGERATE.** If specimen is collected on Friday afternoon after flow cytometry is closed, please add 1 mL of well-mixed purple top tube to a vial of cytochex. Mix and refrigerate. Please send CBC with diff. Must have WBC and lymph%. **Please treat the day before a holiday as a Friday and process specimen accordingly.

Cd4/CD8 Panel (or T4T8 Panel or T lymphocyte subsets or T cell studies, Immunophenotyping of lymphocytes):

Collect 1-2 purple top tubes and store at room temperature. **DO NOT REFRIGERATE.** If specimen is collected on Friday afternoon after flow cytometry is closed, please add 1 mL of well-mixed purple top tube to a vial of cytochex. Mix and refrigerate. Please send CBC with diff. Must have WBC and lymph%. Please make a peripheral blood smear. **Please treat the day before a holiday as a Friday and process specimen accordingly.

CLL, HCL, small lymphocytic lymphoma, cell surface markers, flow cytometry on peripheral blood, Acute leukemia on peripheral blood:

Collect 1-2 purple top tubes and store at room temperature. **DO NOT REFRIGERATE.** If specimen is collected on Friday afternoon after flow cytometry is closed, please add 1 mL of well-mixed purple top tube to a vial of cytochex. Mix and refrigerate. Please send CBC with diff. Must have WBC and lymph%. Please make a peripheral blood smear. **Please treat the day before a holiday as a Friday and process specimen accordingly.

BONE MARROWS FOR FLOW CYTOMETRY: Make sure bone marrow aspirate is in an EDTA tube, mix and store at room temperature. Please send a purple top tube peripheral blood if available, peripheral blood smear (unstained), and most recent CBC results.

TISSUES FOR FLOW CYTOMETRY: Fresh Tissue should be placed in MEM solution (stored in refrigerator) as soon as possible. Label and transport refrigerated.

PLEURAL OR THORACENTESIS FLUID FOR FLOW CYTOMETRY: Please place approximately 50 cc of fluid to large 50 cc conical tube or container with no preservative. Transport refrigerated.

****NOTE:** MEM solution and cytochex is available in APA Gross Lab or Flow Cytometry. MEM solution should be refrigerated.

IMPORTANT NOTES

IMPORTANT NOTES

- ◆ **WHENEVER** there is doubt regarding specimen handling, **the specimen should be refrigerated.**
- ◆ **REFRIGERATED SPECIMENS** should be identified when calling Arkansas Pathology Associates for pickup.
- ◆ **BE SURE TO INCLUDE** all insurance information on the requisition form. It is helpful to attach a photocopy of the patient's insurance card to the requisition form in order to assist our Accounting Office in filing a claim. Our Accounting Office handles questions concerning insurance or billing information, they can be reached at (501) 663-4116 or (800) 663-8922.
- ◆ **TO ENSURE PROPER REPORTING AND DIAGNOSIS,** all slides must be labeled with the **patient's full name** in pencil. All specimen containers must be labeled with the patient's full name and specimen site. If multiple containers are submitted from one patient, please label the containers: A, B, C etc.
- ◆ **THE SPECIMEN SITE OF ORIGIN** must be written on each requisition submitted; without this information the specimen may be delayed in reporting.

REFERENCES

American Society of Cytotechnology: ASCT Cytopathology Quality Assurance Guide, Triol, J.H. (Ed.), 1992.

American Society of Cytopathology: Cervical Cytology Practice Guidelines, Delaware, 1997-2002.

Bibbo, Marluce: Comprehensive Cytopathology, Philadelphia, W.B. Saunders Company, 1991.

Cytec Corporation: ThinPrep Pap Test Training Program, 1999.

DeMay, Richard M.: The Art & Science of Cytopathology, Chicago, ASCP, 1996.

Henry, Michael: Bethesda 2001: A Re-Examination of Terminology and Reporting of Cervicovaginal Adequacy, Benign Cellular Changes, and Infections, Chicago, ASCP, Teleconference No. 3157, 2001.

Keebler, C.M. and Reagan, J.W.: A Manual of Cytotechnology, 4th ed., Chicago, ASCP, 1975.

Keebler, C.M. and Somrak, Theresa M.: A Manual of Cytotechnology, 7th ed., Chicago, ASCP, 1993.

Koss, L.G.: Diagnostic Cytology and Its Histopathologic Bases, 4th ed., Philadelphia, J.B. Lippincott Company, 1992.

Kurman, Robert J. and Solomon, Diane: The Bethesda System for Reporting Cervical/Vaginal Cytologic Diagnosis, New York, 1994.

Meisels, Alexander and Morin, Carol: Cytopathology of the Uterus, 2nd ed., Chicago, ASCP,

1997.

Miller, K.E., Losh, D.P., Folley, A.: Evaluation and Follow-Up of Abnormal Pap Smears, American Family Physician, 45:145-153, 1992.

Naib, Z.M.: Cytopathology of Viral Infections, 11th Annual Mid-Continent Diagnostic Cytopathology Workshop, 1982.

Sherman, Mark and Solomon, Diane: Bethesda 2001: A Re-Examination of Terminology and Reporting of Cervicovaginal Abnormalities, Chicago, ASCP, Teleconference Program No. 3159, 2001.

Saccomanno, Geno: Diagnostic Pulmonary Cytology, Chicago, ASCP, 1978.

Weid, G.L., Koss, L.G., Reagan, J.W.: Compendium on Diagnostic Cytology, 5th ed., International Academy of Cytology, Chicago, 1983.