

Cytology (Non-gynae) Specimen Management

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People caring for people

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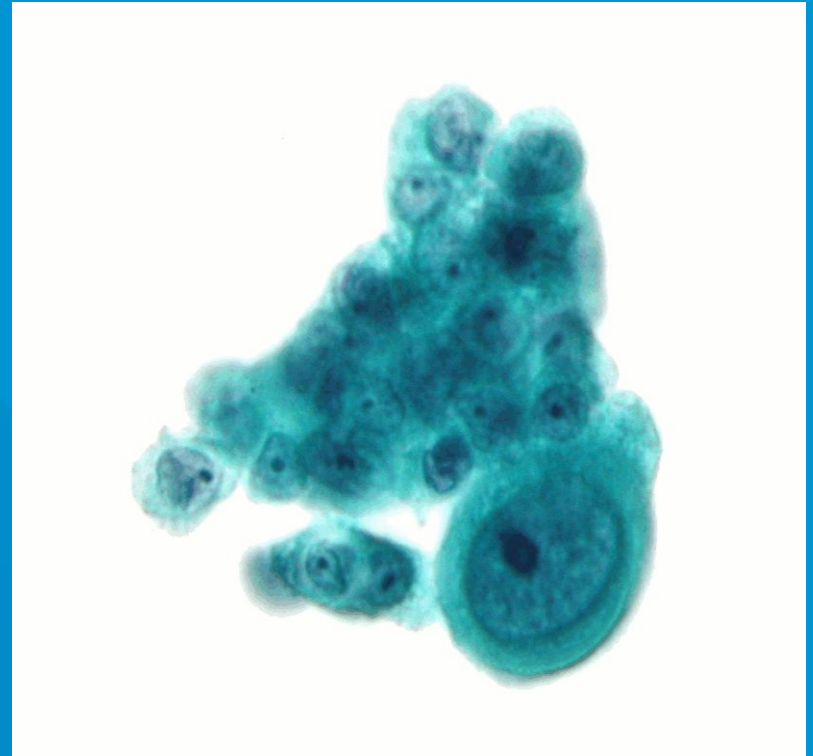
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INTRODUCTION

What is Cytology?



Study of cells in terms of its structure and function.



What is Cytopathology?



Study of cells to determine a cause and nature of a disease.

Histopathology vs Cytology

More Information Online WWW.DIFFERENCEBETWEEN.COM

Histopathology

Cytology

DEFINITION

Histopathology is the examination of tissues related to diseases

Cytology is the study of cells in terms of structure, function and chemistry

STUDYING COMPONENT

Tissues

Individual cells and their nuclei and cytoplasm

INVASIVE AND TRAUMATIC

More invasive and traumatic

Less invasive and traumatic

TYPES OF SPECIMEN FIXATION IN CYTOLOGY

- Rapid fixation of smears is necessary to preserve cytological detail. Any delays affect preservation of cells, which may result in miss diagnosis.

- Alcohol fixed smear / Cytospray:

- Immediate fixation is utmost important.
- A minimum fixation of 15 minutes in 95% alcohol.

- Air-dried smears

- Allow slides to completely dry for 15 minutes before placing in slide container.

- Cytolyt solution

A clear fixative fluid for the collection of fluid specimens or fine needle aspiration.

Reference guide for specimen fixation

LARGE VOLUME
SPECIMENS

Type of samples : Abdominal and pelvic washings, Body cavity fluid (pleural / peritoneal), Urine, Bronchial washing, Gastric / Eosophageal washing.

SUGAMA



Put in sterile urine container
OR
Cytolyt solution



- Refrigerate (4-6° C)
- Send over using cooler bag/ice pack.

- Ratio : 1 to 1
- Room temperature

SMALL VOLUME SPECIMENS

Type of samples : FNA (eg: thyroid, breast, LN, parotid), Breast fluid, Cyst fluid, Synovial fluid.



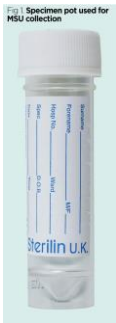
Rinse in Cytolyt solution

SMALL VOLUME CRITICAL SPECIMENS

Type of samples : CSF
and eye discharge

Put in small sterile container
(at least 1ml of fluid)

Cytospin + cell block



- Refrigerate (4-6° C)
- Send over using cooler bag/ice pack.

Note : Since cellular deterioration for CSF is rapid, immediate transportation to the Lab is required.

DIRECT SMEARS

Type of samples : FNA (eg: thyroid, breast, LN, parotid), brushings, nipple discharge, vulva smears

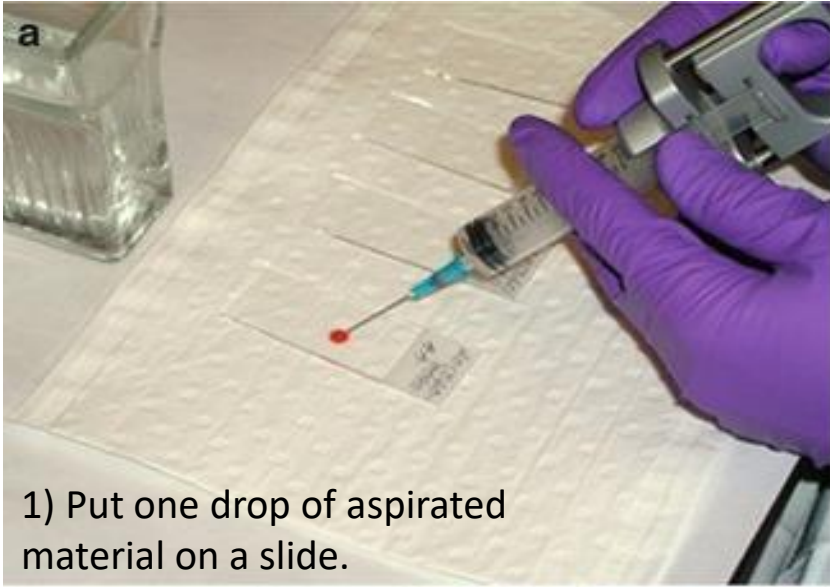
1. 95% alcohol : Slides should be immersed in the alcohol for a minimum of 15 minutes

OR

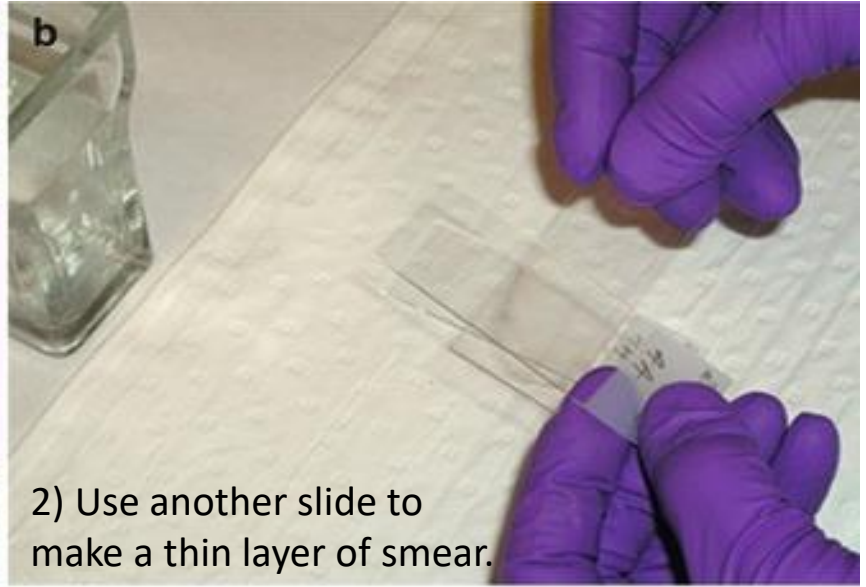
Cytospray: Hold the bottle of spray 3-4 inches from the slide and disperse an even layer of fixative over the slide.

2. Air dry : Leave smears until completely dry before placing in slide holder

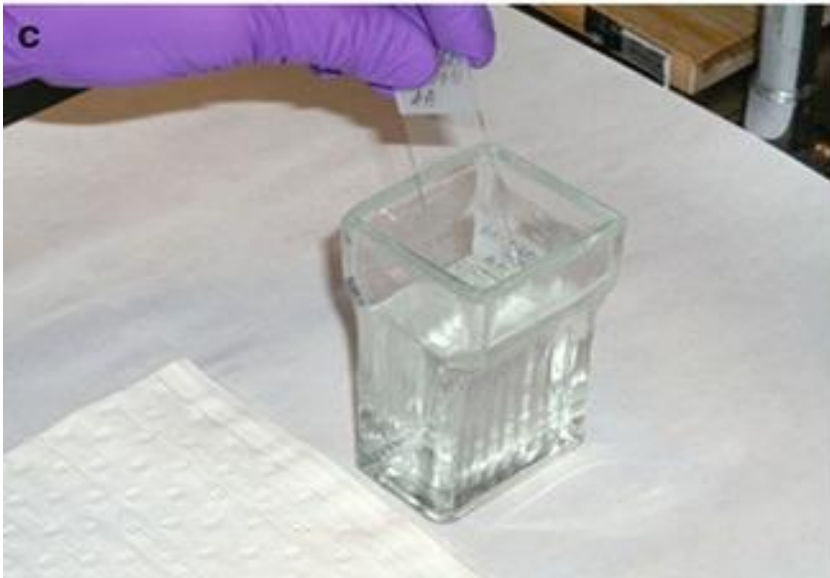
Fine Needle Aspiration (FNA) smearing technique



1) Put one drop of aspirated material on a slide.



2) Use another slide to make a thin layer of smear.



3) Immediately fix slides in 95% alcohol.



4) Rinse the balance of aspirated material into Cytolyt.

SPECIMEN LABELLING



On slide, **MUST LABEL:**



1. Patient's name
2. DOB / MRN

On slide holder / container, **MUST LABEL:**

1. Patient's name
2. DOB / MRN
3. Collection date and time
3. Nature & Site (Right /Left) of specimen
4. Alcohol fixed / air dry (for slide container)

COMMON SPECIMEN REJECTION IN CYTOLOGY.

1. The sample and/or form are not properly labeled with following information :
 - Nature & Site of specimen (Right or Left side, if any).
 - Fixation method (alcohol fixed or air dry).
2. No clinical history provided on the form.
3. Specimen leaking.

 Request order will NOT be processed until corrective action has been taken.
 TAT for processing of orders that have been rejected will be delayed.



SUMMARY

- The importance of following correct protocols when handling or transporting medical specimens cannot be overstated.
- If the integrity of a specimen has been compromised during any phase— including collection, transport or receiving — the result will be compromised.
- Testing errors may lead to misdiagnosis, inappropriate treatment, patient injury or possibly death.
- Every attempt should be made to ensure patient specimens arrive for testing intact, at the correct temperature, with proper documentation in the shortest time possible.

Referral Request List (RRL) for external clients need to be completed before sending to SJMC.



Subang Jaya
Medical Centre

REFERRAL REQUEST LIST FOR LABORATORY TEST

Please assist us by completing this form to ensure all your request(s) and sample(s) are accounted for and have arrived safely in SJMC.
Kindly send this request list together with your request forms and samples to Reference Business Centre, 4th Floor, Mediplex, Subang Jaya Medical Centre.

Hospital / Clinic :		Request Date:		For SJMC internal use only		
No	Patient Name <i>* Please write patient's name clearly in CAPITAL letters</i>		Test(s) Requested	Description & Quantity of Samples sent	Request Received (-)	Remarks
					RBC	
Example	Patient Name	M O H A M E D R A F I K R A F I Q U E	1. HPE 2. FNAC	1 small bottle 1 slide		
	Patient NRIC	S 4 1 2 0 5 - 0 1 - 1 0 0 0			Passport/ Other ID No:	
	Patient Name	P R E M A L A G O V I N D A S A M Y	PUSH + Amnio	2 tubes		
	Patient NRIC				Passport/ Other ID No: A1234567	
1	Patient Name					
	Patient NRIC		Passport/ Other ID No :			
2	Patient Name					
	Patient NRIC		Passport/ Other ID No :			
3	Patient Name					
	Patient NRIC		Passport/ Other ID No :			
4	Patient Name					
	Patient NRIC		Passport/ Other ID No :			
5	Patient Name					
	Patient NRIC		Passport/ Other ID No :			
6	Patient Name					
	Patient NRIC		Passport/ Other ID No :			


Prepared by : _____ Your Fax No : _____

NOTE:

- This list will be faxed back to you as a receipt acknowledgement of the safe arrival of your requests and samples in SJMC.
- Reference Business Centre, SJMC will fax acknowledgement of sample receipt **ONLY** for requests that are accompanied with this Referral Request List (RRL).
- For enquiries and assistance, please contact Reference Business Centre, SJMC at tel. no. 03-56391927 or fax no: 03-56391965.

Received and Checked by:	Initials	Date	Time
RBC Staff			
SJMC Main Lab Staff			
SJMC Hist Staff			
SJMC Cytogen Staff			

NON-GYNAE CYTOLOGY FORM

 Subang Jaya Medical Centre LABORATORY NON-GYNAE CYTOLOGY		Name : _____ MRN : _____ Age / Gender : _____ Date of Birth (DDMMYY) : _____ IC / Passport No. : _____ Location : _____
REFERRAL INFORMATION		
Referring Physician : _____ Signature (required) : _____ Hospital / Laboratory : _____ Location : _____	Phone No. : _____ Fax No. : _____ Email Address : _____ Request Date & Time : _____ Collection Date & Time : _____	
CLINICAL HISTORY & DIAGNOSIS		SITE & NATURE OF SPECIMEN
		Aspiration Site : _____
TEST		SAMPLE REQUIREMENT
<input type="checkbox"/> Cytology (other than Pap)	<input type="checkbox"/> Fluid / Sputum / Bronchial Washing in sterile container <input type="checkbox"/> 2 Bronchial smear: 1 air dried and 1 immediately immersed in 95% alcohol <input type="checkbox"/> TZANCK smear air dried for Herpes Simplex Virus infection <input type="checkbox"/> Discharge from Eye / Nipple / _____ 1 air dried and 1 immersed in 95% alcohol	
<input type="checkbox"/> Non-Gynae / FNA in Cytolyt Solution	<input type="checkbox"/> Fine Needle Aspirate in Cytolyt Solution, 2 smears air dried and 2 smears immediately immersed in 95% Alcohol (total of 4 slides) <input type="checkbox"/> Fine Needle Aspirate in Cytolyt Solution <input type="checkbox"/> Non Gynae Fluid in Cytolyt Solution	
<input type="checkbox"/> FNA Cytology (Slides only)	<input type="checkbox"/> 2 smears air dried and 2 smears immediately immersed in 95% Alcohol (total of 4 slides)	
<input type="checkbox"/> Cytospin	<input type="checkbox"/> CSF / Urine / Fluid from _____ in sterile container with no preservative	
ADDITIONAL INFORMATION		
_____ _____ _____		
LABORATORY		NON-GYNAE CYTOLOGY

Site & Nature of Specimen MUST be tally with specimen bottle