

# HISTOLOGY AND CYTOLOGY LABORATORY & MORTUARY SERVICES

## Department of Laboratory Services

The Histology, Cytology and Mortuary Section include Histology, Cytology, Andrology laboratories and Mortuary services. Both Histology and Cytology laboratories offer services for diagnosis of malignant and non-malignant diseases.

Histology laboratory provides routine and special diagnostic examinations on surgical biopsies. Special diagnostic examination includes rapid frozen section and immunohistochemistry / immunofluorescence studies.

Cytology laboratory provides diagnostic examinations of pap tests, body fluids, sputum, urine and fine needle aspiration specimens.

Andrology laboratory carries out investigation of male infertility. Services provided including basic semen analysis and intrauterine insemination sperm preparation.

The mortuary provides cadaveric storage, autopsy and embalming service.

### Address

State Laboratory Building,  
Raja Isteri Pengiran Anak Saleha Hospital, Bandar Seri Begawan

### Contact

Email: [junaidah.hussin@moh.gov.bn](mailto:junaidah.hussin@moh.gov.bn)

Telephone: 2242424

Head of Section	EXT 6709
Histology	EXT 3019 / 6712
Cytology	EXT 6326 / 6327 / 6704
Andrology	EXT 7103
Mortuary	EXT 8898

### Laboratory Personnel

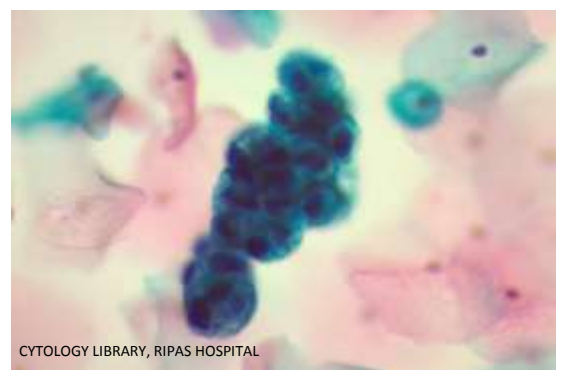
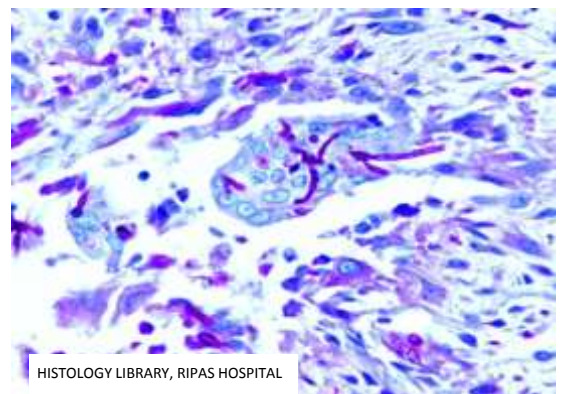
Head of Section:	Juniadah Hj Hussin
Deputy Head of Section:	Siti Zurainah Hj Abd Hamid

Staff:	Scientific Officers
	Medical laboratory Technologists
	Laboratory Technicians
	Laboratory Assistants

### Operating Hours

Monday to Thursday and Saturday  
7.45am - 12.15pm and 1.30pm - 4:30 pm

On-Call (Mortuary) 24 Hours



## HISTOLOGY LABORATORY TEST CATALOGUE

### **Bone**

Specimen	Bone biopsies
Method	Routine / Special / pre-treatment with decalcifying solution for microscopic analysis
Performed	Office hours only
TAT	14 days after the process of decalcification

### **Frozen Section Histology, Frozen Tissue Biopsy**

Specimen	<ul style="list-style-type: none"><li>• Fresh tissue biopsy</li><li>• Prearrange with the Lab before ordering,</li><li>• Refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li></ul>
Transport	Send to the Lab immediately
Method	Cryostat sectioning and routine stain for microscopic analysis
Performed	Daily <b>(Monday-Thursday &amp; Saturday only, Friday &amp; Sunday – make an arrangement with the Pathologist)</b>
TAT	20 minutes after the specimen is received
Clinical Usage	Intraoperative diagnosis

### **Routine Histology, Tissue Biopsy**

Specimen	All tissue fixed in 10% Formal Saline at a volume of 8-10 times of the volume of specimen except testicular biopsy which should be fixed in Bouin's solution
Method	Routine / Special stains for microscopic analysis
Performed	Daily
TAT	10 days
Clinical Usage	Tissue diagnosis

### **Special Histology, Bone Marrow Biopsy**

Specimen	Bone marrow biopsy, fixed in 10% Formal Saline at a volume of 8 times of the specimen's volume
Method	Routine / Special stains; pre-treatment with decalcifying solution for microscopic analysis
Performed	Office hours only
TAT	14 days (including pre-treatment with decalcifying solution)

### **Special Histology, Gastro-Intestinal Biopsy**

Specimen	<ul style="list-style-type: none"><li>• Gastro-Intestinal biopsy</li><li>• Fixed in 10% Formal Saline at a volume of 8 times of the specimen's volume</li><li>• Mounted on a piece of filter paper before placing in the container. (The filter paper should be fully immersed in the fixative)</li></ul>
Method	Routine / special stains for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	Diagnosis of gastro-intestinal diseases

**Special Histology, Liver Biopsy**

Specimen	Liver biopsy, fixed in 10% Formal Saline at a volume of 8 times of the specimen's volume
Method	Routine / Special / Immunohistochemical stains for microscopic analysis
Performed	Office hours only
TAT	10 days
Clinical Usage	Diagnosis and assessment of liver diseases

**Special Histology, Muscle Biopsy**

Specimen	<ul style="list-style-type: none"><li>• Muscle biopsy</li><li>• Mounted on a wooden board and held by needle/pins</li><li>• Fixed in 10% Formal Saline at a volume of 8 times that of specimen</li><li>• The wooden board can be obtained from Histology Lab with prior arrangement with Histology staff</li></ul>
Method	Routine / Special stains for microscopic analysis
Performed	Office hours only
TAT	21 days
Clinical Usage	Diagnosis of neuromuscular disorders

**Special Histology, Renal Biopsies**

Specimen	<ul style="list-style-type: none"><li>• Renal biopsies that require Immunofluorescence examination</li><li>• Send 2 fresh samples: 2 biopsies in 1 specimen container. In doubt, please contact the Pathologist or the Histology Laboratory technical staff</li><li>• Collect the container from Histology laboratory prior to the procedure</li><li>• Prearrange with the Laboratory technical staff and Pathologist at least 1 day before sending if Immunofluorescence is required</li></ul>
Method	Routine / Special / Immunohistochemical stains, Immunofluorescence (if applicable) for microscopic analysis
Performed	Office hours only
TAT	10 days
Clinical Usage	Diagnosis and monitoring of renal and skin diseases

**Special Histology, Skin Biopsies**

Specimen	<ul style="list-style-type: none"><li>• Skin biopsies that require Immunofluorescence examination</li><li>• Send 2 samples:<ul style="list-style-type: none"><li>◦ 1 fresh sample and</li><li>◦ 1 sample fixed in 10% Formal Saline at a volume of 8 times of the specimen's volume</li><li>◦ Prearrange with the Lab and Pathologist at least 1 day before sending if immunofluorescence is required</li></ul></li></ul>
Method	Routine / Special / Immunohistochemical stains, Immunofluorescence (if applicable) for microscopic analysis
Performed	Office hours only
TAT	14 days
Clinical Usage	Diagnosis and monitoring of renal and skin diseases

## CYTOLOGY LABORATORY TEST CATALOGUE

### Barr Body Detection

Specimen	<ul style="list-style-type: none"><li>• Buccal mucosal scraping.</li><li>• Specimen collection is performed by Laboratory technical staff</li></ul>
Method	Routine / Special stains for microscopic analysis
Performed	Contact Cytology Laboratory for appointment
TAT	7 days
Clinical Usage	Gender verification

### Bronchial Brushing

Specimen	Bronchial brushing (prepared smears)
Transport	Send to the Cytology Laboratory immediately
Method	Routine / Special stains for microscopic analysis
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

### Bronchial Washing and Bronchoalveolar Lavage (BAL)

Specimen	<ul style="list-style-type: none"><li>• Bronchial washing and bronchoalveolar lavage.</li><li>• <b>After office hours</b>, refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li></ul>
Transport	Send to the Cytology Laboratory immediately
Method	Routine/Special stains; cell block if necessary for microscopic analysis
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

### Cytology, Cerebrospinal Fluid (CSF)

Specimen	<ul style="list-style-type: none"><li>• Cerebrospinal fluid (CSF).</li><li>• <b>After office hours</b>, refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li><li>• <b>Contact the Laboratory for earlier result enquiry</b></li></ul>
Transport	Send to the Cytology Laboratory immediately
Method	Routine / Special stains for microscopic analysis
TAT	5 days
Clinical Usage	To detect malignancy and specific infection

### Cytology, Pap Test

Specimen	Cervical / vaginal conventional smear (fixed) and/or liquid-based preparation, refer to the Guidelines on Specimen Collection (Laboratory Handbook)
Method	Pap stain for microscopic analysis
Performed	Office hours only
TAT	21 days
Clinical Usage	To detect premalignancy / malignancy and specific infection

**Cytology, Postcoital Test (PCT)**

Specimen	<ul style="list-style-type: none"><li>• Cervical mucus, test should be done just before ovulation</li><li>• Specimen in syringe</li></ul>
Transport	Send to the Cytology Laboratory immediately
Unacceptable	Specimen smeared on slides
Method	Wet preparation for microscopic analysis
Performed	Office hours only
TAT	1 hour
Clinical Usage	To detect inhibitory effect of cervical mucus on spermatozoa motility

**Cytology, Serous Effusions**

Specimen	<ul style="list-style-type: none"><li>• Pleural, pericardial and peritoneal fluids.</li><li>• <b>After office hours</b>, refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li></ul>
Transport	Send to the Cytology Laboratory immediately
Method	Routine / Special stains; cell block if necessary for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

**Cytology, Sputum**

Specimen	Sputum, refer to the Guidelines on Specimen Collection (Laboratory Handbook)
Method	Routine / Special stains; cell block if necessary for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

**Cytology, Synovial Fluid**

Specimen	Synovial fluid
Transport	Send to the Cytology Laboratory immediately
Method	Wet preparation for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect crystals and specific infection

**Cytology, Urine**

Specimen	<ul style="list-style-type: none"><li>• Urine (bladder / kidney / voided / selective).</li><li>• <b>After office hours</b>, refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li></ul>
Method	Routine / Special stains; cell block if necessary for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

**Fine Needle Aspiration Cytology, FNAC**

Specimen	<ul style="list-style-type: none"><li>• Fine needle aspirate (fixed and air-dried smears)</li><li>• Contact the Cytology Laboratory for FNAC service, refer to the Guidelines on Specimen Collection (Laboratory Handbook)</li></ul>
Method	Routine / Special stains; cell block if necessary for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

**Nipple Discharge Cytology**

Specimen	Nipple Discharge
Transport	Send to the Cytology Laboratory immediately
Method	Routine / Special stains; cell block if necessary for microscopic analysis
Performed	Office hours only
TAT	7 days
Clinical Usage	To detect malignancy and specific infection

**Scraping**

Specimen	Eye or skin scraping (fixed or air-dried smears)
Transport	Send to the Cytology Laboratory immediately
Method	Routine / Special stains for microscopic analysis
Performed	Office hours only
TAT	7 days

## ANDROLOGY LABORATORY TEST CATALOGUE

### Semen Analysis

Specimen	Semen, refer to the Guidelines on Specimen Collection (Laboratory Handbook)	
Transport	Send to Fertility Unit, 1 <sup>st</sup> Floor, Women and Children Centre, RIPAS Hospital (for patients from Brunei-Muara, Tutong, Kuala Belait and Temburong Districts)	
Method	Wet preparation for microscopic analysis; Kwik Diff stain	
Performed	Monday until Thursday and Saturday (office hours only)	
TAT	9 days (7 working days plus 2 public holidays)	
Clinical Usage	Determination of male infertility status	
Reference Range	Volume:	1.5 ml or more
	pH:	7.2 or more
	Motility:	40% or more
	Concentration:	15 million/ml or more
	Normal form morphology:	4% or more
	Vitality:	58% or more live sperm

### Sperm Preparation for IUI

Specimen	Semen, refer to the Guidelines on Specimen Collection (Laboratory Handbook)	
Transport	Produce sample at Fertility Unit, 1 <sup>st</sup> Floor, Women and Children Centre, RIPAS Hospital (for patients from Brunei-Muara, Tutong, Kuala Belait and Temburong Districts)	
Method	Semen analysis and Density gradient centrifugation	
Performed	Monday until Thursday and Saturday (office hours only)	
TAT	1.5 hours for sperm preparation	9 days (7 working days plus 2 public holidays) for semen analysis
Clinical Usage	Preparation of sperm for Intrauterine Insemination	
Reference Range	Refer to Semen Analysis	