

# **Department of Laboratory Medicine**

Miramichi Area 500 rue Water Street Miramichi NB E1V 3G5

# Laboratory User Manual

Version 14

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# **General Laboratory Information**

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## A. <u>Laboratory Hours of Operation</u>

Laboratory Department	Monday To Friday	24-7-365 Coverage	Notes
Outpatient Specimen Collection	$\checkmark$		Booked Appointments: 0700 -1500
Inpatient Specimen Collection		$\checkmark$	Limited staff from 1700 - 0630
Chemistry Department*		$\checkmark$	Limited staff from 1600 - 0800
Hematology Department*		$\checkmark$	Limited staff from 1600 - 0800
Transfusion Medicine*		$\checkmark$	Limited staff from 1600 - 0800
Histopathology	$\checkmark$		0700 - 1600
Laboratory Administration	$\checkmark$		0730 - 1600
Onsite Pathologist	$\checkmark$		0800 - 1600

**NOTE 1:** \* STAT testing only from 1600 – 0800

NOTE 2: Reduced staffing during all Statutory Holidays, weekends, midnight and evening shifts.

# B. Laboratory Contact Directory

Position	Name	Contact Phone Number
Clinical Laboratory Director/ Pathologist	Dr. N. Spartaco	623-3243
Laboratory Administrative Director	Steven Doyle	623-3241
Medical Biochemist (Offsite-Moncton)	Dr. L. J Cartier	860-2242
Haematopathologist (Offsite – Moncton)	Dr. M. Hagag	857-5306
Laboratory Operational Manager	Sharon Taylor	623-3250
Laboratory Operational Manager	Marsha Cook	623-3256
Manager – Chemistry (Offsite – Moncton)	Charlene Collins	857-5302
Chemistry Department	General Inquiries	623-3252
Manager – Hematology (Offsite – Moncton)	Sasha Wright	857-5746
Hematology	General Inquiries	623-3255
Manager – Transfusion Medicine (Offsite – Moncton)	Nicole Caldwell	857-5320
Transfusion Medicine	General Inquiries	623-3258
Histology	Denise Bowes	623-3256
Histology Department	General Inquiries	623-3248
Cytology Manager (Offsite – Moncton)	Natalie Savoie	870-2562
Cytology Department (Offsite - Moncton)	General Inquiries	857-5311
Specimen Collection (In-Patient, ER. OPD)	General Inquiries Collection Requests	623-6902 Voice Print Pager
Specimen Collection (Outpatient only)	General Inquiries	623-3171
Central Receiving/ Dispatch	General Inquiries	623-3253
General Administration Office	General Inquiries	623-3240
Quality, Safety, Process Management Coordinator	Shirley MacDonald	623-3246
LIS Coordinator	Linda Dunn	623-3249
POC Coordinator (Offsite-Moncton)	Melissa King	857-5315
Morgue	N/A	623-3025

# C. Provision of Service:

Laboratory Medicine Program in the Miramichi Area is under the direction of the Clinical Laboratory Director and or designate. The Laboratory will perform tests and examine specimens at the request of Authorized Healthcare Providers which include:

- Physicians that have ordering privileges that have been issued by the New Brunswick College of Physicians and Surgeons
- Nurse Practitioners Within Horizon Health Network or work directly under a privileged Physician by the New Brunswick College of Physicians and Surgeons
- Pharmacist within Hospital (no community-based pharmacist)

Note: Non-credentialed physicians are required to request the family physician to order the test or apply for temporary privileges through the Miramichi Regional Physician's office (Contact 623-3327 for further information).

# D. Laboratory Access:

The Laboratory is a controlled access area within the hospital. Authorized personnel will have direct electronic swipe access into the level 2 Laboratory and level 1 Specimen Collection (back door).

The following security groups will have card access to the laboratory and or specimen collection:

- Laboratory employees
- Housekeeping •

- SPD •
- Security

Physicians

- **Nursing Supervisors** All (limited to CEO, Facility Executive Director and Regional Director of Capital and Infrastructure)
  - Laboratory Registration

External Service providers and other approved guests must enter the laboratory through the main office and complete the following two forms:

- Laboratory Access Visitor must read Appendix A of Laboratory Access policy LAB-7-ADM-03-03005
  - o Denotes the safety and confidentiality requirements for admittance to the laboratory
- Sign Visitor Control Log LAB-7-ADM-F00018
  - Used for the safety of the visitor and controlled access for the Laboratory
  - Must be completed each visit with the following information:  $\circ$ 
    - Date
    - Name .
    - Signature denoting completion of Visitor Safety and Confidentiality information
    - Time in
    - . Lab contact person/ Reason for visit
    - Time out

Hospital staff requiring access to the laboratory for blood bank products, maintenance, or deliveries will be admitted by the Central Receiving/ Dispatch personnel if they do not have electronic access. NOTE: Level 0 Autopsy Suite does not have electronic swipe access and is under lock and key to authorized personnel only.

## E. Patient Reports

Patient reports will contain the following information:

- Patient Identifiers (Name, DOB, Medicare, Hospital Number)
- Ordering Comments
- Tests Ordered
- Flags (Abnormal/Critical)
- Site (Lab performing the test)

- All associated Physicians (ordering, Attending, Family, specialists etc
- Collection details (Date/Time/Source)
- Test Results
- References (if applicable)

**NOTE:** Pathology, Cytology, Blood Bank, and Microbiology reports may contain additional information

#### F. Patient Report Distribution

**Critical Reports** critical values will be telephoned within 15 minutes, followed up with a printout to the ordering floor if an inpatient, or a fax to the ordering provider if an outpatient (including EMH).

**Patient Reports**: Monday to Friday the laboratory administrative staff will collate and send all hard copy of patient reports from the previous day. All reports generated on weekends or statutory holidays will be distributed to ordering providers on the next business day.

**Telephone and Fax Requests for Patient Reports**: Monday to Friday the laboratory administrative staff will provide verbal and faxed reports between 0730 - 1530 hours to authorized individuals. Outside these hours, all calls will be auto forwarded to the laboratory staff.

- Patient reports will only be given to Authorized Health Care Providers directly associated with the care of the patient for whom they are requesting the report on.
- Patients will not be given results directly from the laboratory unless they are on Approved Patients to Receive Lab Results (LAB-7-ADM-F00034): Contact Laboratory Administration for further details
- EXCEPTION: Only pathologists are authorized to give verbal Cytology or Pathology reports.
   NOTE: This service is only intended for use when a report <u>cannot</u> be accessed on the patient's chart, through the PCI patient inquiry system. <u>Those with PCI access will not be given patient</u> reports verbally or by means of facsimile. Faxed transmissions must be strictly limited and will only be sent to destinations that are in a secure location.

## G. Specimen Identification and Requisitions:

#### **Specimen Identification:**

A properly labeled specimen and requisition will save valuable time and resources for the health care system. Please take the time to ensure that all specimens are labeled with appropriate information and requisitions contain the required information for the sample type.

#### Specimens:

All specimens must be adequately identified. Attach <u>one label only</u> to each specimen. This label must contain:

- Patient's full name and
- Hospital number and or Medicare number.
- Collectors' initials or Meditech ID and time of collection indicated on specimens (Exception: Histopathology and Cytology specimens do not require the name of the person who performed the collection or collection time on the specimen container or slides. Collection date/time and submitting provider (Dr/NP who collected the sample) <u>must</u> be documented on the requisition.

This is a CONTROLLED document. LAB-7-ADM-LUM-00001

**NOTE:** All identifiers must match those on the requisition (see Phlebotomy: <u>Section 9</u>) Specimens which are not properly or adequately identified <u>will not be processed</u>. A report will be generated and issued to the ordering physician advising that the sample was not processed with details of the rejection.

**NOTE**: In the event of an irreplaceable specimen it will be necessary for the attending Health Care Provider to contact the laboratory and issue an "Authorization To Proceed With Testing form" (LAB-7-SC-F00001) as per laboratory policy: LAB-7-SC-01005 Processing Irreplaceable Specimens. Reports on these specimens will be identified as "Testing performed on unlabeled/ mislabeled specimen as per the order of Dr.\_\_\_\_\_ (Authorized Health Care Provider) ".

**NOTE:** For anonymous samples please contact the laboratory for procedure, "Submission of Coded Samples"

#### Laboratory Requisitions:

Laboratory Requisitions are available by contacting the Miramichi Hospital Print Shop Phone: 506-623-3068, and use Form 21909 Request for Printing Services or available on SKYLINE under Departments & Programs then Laboratory Services- See quick links under Laboratory Requisitions and Forms, select Miramichi Area.

Note: External sites can visit <u>www.horizonnb.ca/lab-resources</u>, then go to the Clinical Resources tab.

- Do not fold requisitions or wrap around specimens
- Specimens and requisitions **must** be packed in separated bags
- Ensure Requisitions are completely filled out prior to submission to the laboratory **NOTE:** Improper completion of a requisition may lead to sample rejection

	Note		
Identifier	Must* (critical)	Should	Special Instructions (critical)
Patient's full name	✓		
Date of birth	~		
Medicare number and/or CPI number	~		
Health Care Provider(s) full name	~		
Test(s) requested	~		
Sex	✓		
Location of patient	~		Room number or facility (i.e. ER, Sexual Health etc.)
All relevant clinical information as requested by the laboratory	~		i.e. Medication, diagnoses etc.
If a specimen accompanies the requisition	a specimen accompanies the requisition include the following below:		
Date and time of specimen collection	✓		
ID of collector	√*		<b>Note:</b> * This is a MUST for all <u>Blood</u> <u>Bank Specimens</u> (Full signature of Phlebotomist)

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Specimen Type	1	
Anatomic site of origin (as required)	~	
Histology Requests		Refer to <u>Section 3: Anatomical</u> Pathology
Cytology <ul> <li>Gynecological Requests</li> <li>Non-Gynecological Requests</li> </ul>		Refer to Section 5: Cytology
Microbiology Requests		Refer to Section 8: Microbiology

Note: All Histology, Cytology and Microbiology samples must be accompanied with requisitions that are specialized and require additional information.

#### H. Packaging and Transportation of Laboratory Specimens

All specimens must be delivered to the laboratory ASAP after collection (see <u>Specimen Stability</u> below). In order to provide for the safety of the various people or businesses delivering specimens to our laboratory, and to protect our own staff receiving them, all specimen transport must be in compliance with Transport of Dangerous Goods regulations.

https://tc.canada.ca/en/dangerous-goods/transportation-dangerous-goods-canada

The receiving laboratory have a responsibility to accept only properly packaged samples and to inform individuals who do not comply with this law.

**NOTE:** Failure to comply may result in specimen rejection by the laboratory and or possible fines levied by Transport Canada

Required Materials:

- Specimens
- Plastic Bag, large enough to hold specimens (Ziploc or garbage bag)
- Absorbent Materials (Diapers, depends, paper towel, or other absorbent materials)
- Specimen Rack(s) or paper towel to divide samples (they must not touch during transit)
- Transport container (four-sided hard container or a cooler)
- Separate plastic bag for associated paperwork/requisitions

	1	Ensure all specimen caps are secure and sealed: all non-vacutainer-type tubes containing liquids must be sealed (Urine containers, etc.)
	2	Place a plastic bag inside of the transport container
	3	Place absorbent material inside the plastic bag
Packing procedure	4	Specimens should be separated. Stand the specimen tubes or urine containers in the appropriate rack or divide using paper towels
	5	Close plastic bag (zip, tie or use twist tie)
	6	Place all the requisitions in a separate plastic bag and place inside the transport container on the top of the plastic bag of specimens
	7	Close the cover of the transport container and seal with tape if not self-latching

#### Contamination

Avoid contaminating the outside of the specimen container. Clean with a hospital approved disinfectant such as alcohol or Oxivir Tb if contamination occurs before packaging and sending to the Laboratory.

#### I. Delivery of Specimens to the Laboratory

All specimens entering the laboratory are to be delivered to Laboratory Central Receiving/ Dispatch.

- The Testing Laboratory is located on the 2<sup>nd</sup> floor of the Miramichi Regional Hospital.
- Onsite at Miramichi Regional Hospital specimens may be delivered to the laboratory using the Pneumatic Tube System (PTS)

**NOTE**: The following specimens are **<u>NOT</u>** permitted in the pneumatic tube system:

- Specimens exceeding a volume of 100 ml (example, 24-hour urine specimens)
- Glass products (example, blood culture's)
- Stool specimens for fecal fats
- Histology Specimens
- Cytopathology specimens
- o Body fluids (example, pleural, pericardial, synovial)
- Cerebral Spinal Fluids (CSF)
- Platelet function tests
- Blood Gases with needles on the tip
- Blood Bank products (including empty bags)
- Approved specimen container lids are securely fastened and are placed in a single use Ziploc bag and sealed prior to travel within the PTS. Place this within a second bag.
  - o All requisitions will be kept separated from specimens during transport
  - Only one patients' sample(s) are permitted per Ziploc bag
    - Multiple Ziploc bags can be transported in the same carrier
  - Carriers are not to be overfilled with content (never force a carrier closed)
  - All materials should remain inside of the carrier (no protruding materials)
  - Both latches must be sealed on the carrier to avoid disruption to the system

#### J. Specimen Stability

Some chemistry samples require centrifugation within 2 hours from time of collection. When there is a delay in centrifugation of over 2 hours, a comment will be placed on the patient result report **"Test Not Performed"** (TNP) for glucose, iron, potassium or LDH. Based upon the extent of the centrifugation delay, other assays may require "TNP" as well.

Refer to Appendix A - Hematology Sample Stability or Appendix B - Chemistry Sample

Stability for charts of common tests performed. Appendix information was taken from Policy LAB-7-CR-01025, Effective date November 22, 2018

# Appendix A: Hematology Sample Stability

#### **General Hematology**

TEST	RT	4ºC	-20ºC
CBC/Auto diff	24 hours	48 hours	N/A
ESR	4 hours	6 hours (24 hour. in EDTA)	N/A
Retic Automated or Manual	24 hours	48 hours	N/A
Nucleated RBC's	24 hours	N/A	N/A
Manual Smear	Prepare within 2 hours for best results.	N/A	N/A
Mono	24 hours (EDTA)	8 days (SERUM)	Stable (SERUM)
CSF	20 mins		
Malaria	1 hour		

#### Coagulation

TEST	RT (stored as whole blood)	RT (processed and plasma aliquoted)	4ºC (stored as whole blood)	4⁰C (processed and plasma aliquoted)	-20 <sup>0</sup> C (processed and plasma aliquoted)
PT/INR	up to24 hours	up to 24 hours	unacceptable	unacceptable	2 weeks (platelet-poor)
aPTT	*up to 4 hours	*4 hours	4 hours	*4 hours	2 weeks (platelet-poor)
D Dimer	4 hours	4 hours	4 hours	4 hours	
Fib C	4 hours	4 hours	4 hours	4 hours	
*aPTT for UFH analysis	1 hours	4 hours		4 hours	2 weeks (platelet-poor)

# \*PTT specimens on heparin (unfractionated) should be centrifuged within 1 hour of collection

# Appendix B: Chemistry Plasma/Serum Sample Stability

Test	Refrigerated (not aliquoted) 2-8° C	Comments
Acetaminophen	24 hours	
Albumin	72 hours	
ALP	72 hours	
ALT	72 hours	
AST	72 hours	
BHCG	72 hours	
Bili Direct **	72 hours	
Bili Total **	72 hours	
BNP	24 hours	4 hours at RT
Calcium Ionized	70 hours	Tube must be unopened and spun. Do Not Freeze
Calcium Total	72 hours	
Chloride	8 hours	
Cholesterol	72 hours	
СК	72 hours	
CO2	7 days	Do not use for Add on Test if already opened
Creatinine	72 hours	
Test	Refrigerated 2-8° C	Comments
CRP	72 hours	
Digoxin	24 hours	
Ethanol	Up to 6 months if unopened	
Ferritin	72 hours	
Folate	7 days	
Free T3	72 hours	
Free T4	72 hours	
GGT	72 hours	
Glucose	8 hours	Stable 7 days at 2-8°C if aliquoted
HDL	72 hours	
Iron	72 hours	
Lactate (Whole Blood)	1 hour	Must be delivered on ice

LDH	8 hours	
Lipase	72 hours	
Lithium	72 hours	Do not need to separate
Magnesium	72 hours	
Urine/CSF Protein	7 days urine 6 days CSF	
Phenytoin	24 hours	
Phosphorus	24 hours	
Potassium	8 hours	
Protein Total	72 hours	
PSA Total	24 hours	
Salicylate	72 hours	
Sodium	8 hours	
TIBC / UIBC	72 hours	
Triglycerides	72 hours	
Troponin I	24 hours	Can test at 72 hours, but put comment may be 20% decrease
TSH	72 hours	
Urea	72 hours	
Uric Acid	72 hours	
Vancomycin	24 hours	
Vitamin B12	7 days	

\* Serum ALP increases slowly with storage. It is best to analyze ALP the day of collection.

\*\* Protect from light.

#### Add-on Testing

Requests for add-on testing will be performed only if:

- The specimen remains stable
- Appropriate sample is available

# K. STAT Laboratory Testing

Used when the Physician must act immediately to treat the patient; Test results are available within 60 minutes, from collection to verification, 90% of the time.

**POLICY:** The following tests are available to be performed as a STAT and are provided on a 24 hour a day, 7 day a week basis by the Miramichi Regional Hospital Laboratory. Tests not on this list will not be performed or reported on evenings, nights or statutory holidays, except in cases where the authorized health care provider has consulted the Laboratory Clinical Director and received approval for the test to be performed and reported.

	Acetaminophen	HCG (Serum)
	Albumin	Iron (in children)
	Alcohol(Ethyl)	Ionized Calcium
	Alanine Amino Transferase	Lactate
	Alkaline Phosphatase	Lactate Dehydrogenase
	Ammonia	Lipase
	Beta Hydroxybutyrate	Lithium
2	Bilirubin, Total + Direct	Magnesium
Chemistry	Blood Gases	Osmolality
E E	Calcium	Phenytoin
L R	Carboxyhemoglobin	Phosphorus
	Creatinine Kinase	Pregnancy Test (urine)
	Creatinine	Salicylate
	CRP	Troponin
	CSF (Glucose + Protein)	Urea
	Digoxin	Urinalysis
	Electrolytes	Urine Drug Screen
	Gentamycin (Testing provided off site) Glucose	Vancomycin
	Glucose	
	CBC, with DIFF	ESR – (Only in suspected Temporal
	CSF (Cell count/DIFF)	Arteritis, Kawasaki Syndrome, Septic
<u>g</u> v	D-Dimer	Arthritis, and Inflammatory Bowel Disease)
00		
late	Fibrinogen	Malarial Parasite (preliminary only)
Hematology	PTT	Mono
_ <b>T</b>	PT/INR	Body Fluid Analysis
	Fetal Fibronectin	
in fu	New Born Blood Type (HDN)	Preparation and Issue of Blood Products
Transfu sion Medicin	Direct Coombs	
E S	Type, Screen and Crossmatch	

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#### L. In-house Testing (Routine, Timed and STAT)

- 1. Routine test: a test that has no specified collection time. Most routine tests are processed within a 24-hour period. The Laboratory has regularly scheduled in-patient collections times for routine requests:
  - 0700hrs
- 1300hrs1500hrs

• 1800hrs

• 1000hrs

#### **Routine Test Procedure:**

- a. Enter the routine request into the Meditech Order Entry module.
- b. The Laboratory performs the collection based on the next scheduled collection time. For example, CBC ordered at 0900hrs will be collected during the 1000hrs collection time

**NOTE:** Every effort is made to adhere to these specified collection times; in the event of an emergency or trauma situation specimen collection may be delayed.

- 2. Timed (Order Entry- Urgent) Request Procedure -Test that is required to be collected at a specific time. example lithium or gentamicin levels
  - **a.** Enter the timed request into the Meditech Order Entry module.
  - b. Notify the Laboratory by telephone at extension 3253 that such an order exists and to ensure collection occurs at the appropriate time. If the laboratory is **not** notified of a "timed" collection this order will not be collected until the next regularly scheduled collection time.

## 3. STAT Request Procedure:

- **a.** Enter the STAT request into the Meditech Order Entry module.
- b. For STAT requests ordered between the hours of 0630hrs and 1930hrs:
  I. Page the Laboratory at 623-6902.
- c. For STAT requests ordered between the hours of 1930hrs and 0630hrs:
  - I. **Telephone** the Laboratory at extension 3253.
  - **II.** If there is no answer by telephone, Page 623-6902.

## M. Paternity Testing:

- Testing and collection is no longer available onsite at Miramichi Regional Hospital.
- Patients are responsible to book appointments through, Riverview Blood Collection Clinic in Moncton:
  - o (506) 383 4620 (AM)
  - o (506) 384 4272 (PM)

# N. Fasting Test list

Test Name	Meditech Mnemonic
Amino Acids	AMINO
Androstenedione	ANDROST
Angiotension Converting Enzyme	ACE
Apolipoprotein A	APOA
C Peptide (recommended)	CPEP
Calcitonin	CALC
C-Telopeptide	TELOPTIDEC
Cryofibrinogen	CRYOFIB
D-Xylose Tolerance	DXYLOSE
Environment-Fatty Acid Profile	ENVFA
Fatty Acids, Free	FFA
Folate	FOL
Gastrin	GASTRIN
Glucagon	GLUCA
Glucose Tolerance 75 gram	GTT75
Glucose, fasting	AC
Glucose GR Hormone challenge	GLUGRH
Growth Hormone	GRHORM
Homocystine	HOMOCY
Immunoglobulins, IGE	IGE
Insulin	INSULIN
Insulin Antibody	INSAB
Iron Panel (preferred)	IRON
Lactose Tolerance	LACTTOL
Metanephrines	METANEPHPL
Methylmalonic Acid	METHAC or MMA
Pancreatic Polypeptide Level	PANPOLY
Proinsulin	PROINS
Vit B1 (thiamin)	VITB1

# O. Repeat Laboratory Testing Interval Restrictions

	TEST	EXCEPT	NOTIFY	
TEST	MNEUMONIC	MNEUMONIC	MNEUMONIC	<b>RESTRICTION RULES</b>
A1C	HA1C or A1C	A1CEXCEPT	A1CNOTIFY	80 days
Аро В	APOB	APOBEXCEPT	APOBNOTIFY	6 weeks
AST		ASTEXCEPT		Routine testing for this test will no
				longer be performed.
BNP	BNP	BNPEXCEPT	BNPNOTIFY	Inpatient-7 days
				Outpatient-6 weeks
CA125	CA125	CA125EXCEP	CA125NOTIF	12 weeks
CA19-9	CA199	CA199EXCEP	CA199NOTIF	12 weeks
CEA	CEA	CEAEXCEPT	CEANOTIFY	12 weeks
Creatinine	CR and BUN	UREAEXCEPT		Creatinine and Urea will not be
&				allowed together on Outpatients.
Urea				When both tests are requested –
				order CREATININE only
CRP & ESR	CRP & ESR	ESREXCEPT		If CRP and ESR are ordered
				together-order CRP only. ESR can
				be ordered alone.
Folate	FOL	FOLEXCEPT	FOLNOTIFY	12 weeks
Free PSA	FPSA	FPSAEXCEPT	FPSANOTIFY	12 weeks if age <75 years
Free T3	FT3	FT3EXCEPT	FT3NOTIFY	6 weeks based on reflex rules
Free T4	FT4	FT4EXCEPT	FT4NOTIFY	6 weeks based on reflex rules
GGT		GGTEXCEPT		Routine testing for this test will no
				longer be performed.
Iron & Ferritin	IRON	IRONEXCEPT	IRONNOTIFY	4 weeks
	FER	FEREXCEPT	FERNOTIFY	
Lipid Profile				Not Implemented
Protein	PREL24	PREL24EXPT	PREL24NTFY	3 weeks
Electrophoresis				
(Urine)				
IFE (Urine)	IMMGLUR	IMMGLUEXPT	IMMGLUNTFY	3 weeks
Bence Jones	BJP	BJPEXCEPT	BJPNOTIFY	3 weeks
Testing (Urine)				
Protein	EPHORS	EPHORSEXPT	EPHORSNTFY	3 weeks
Electrophoresis				
(Serum)				
IFE (Serum)	IFE	IFEEXCEPT	IFENOTIFY	3 weeks
PSA	PSA	PSAEXCEPT	PSANOTIFY	12 weeks if age <75 years
TSH	TSH	TSHEXCEPT	TSHNOTIFY	6 weeks
Vitamin B12	VB12	B12EXCEPT	B12NOTIFY	12 weeks
Vitamin D	VITD	VITDEXCEPT	VITDNOTIFY	1 Year

# Laboratory Test Catalogue

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
11-Deoxycortisol	11DEOXY	SD	Blood	Yellow	4 mL	Referred.
17 Alpha OH Progesterone	See 170HP					Referred. Order 17-Hydroxyprogesterone (17OHP)
17-Hydroxycorti- costeroids						Testing not available, suggest ordering DHEAS and/or Cortisol.
17-Hydroxy progesterone	170HP	SD	Blood	Yellow	4 mL	Referred. Deliver to LAB ASAP Send frozen
17-Ketosteroids	17KEUR					Testing not available; suggest ordering DHEAS and/or Cortisol
2,3- Diphosphoglycerate (2,3DPG)						Referred. Test no longer available at any known testing site.
5-HIAA Quantitative	5HIAA	SDU	Urine	24 hour jug with preservative (20 ml 6N HCL)	24 hour specimen	Referred. DIET RESTRICTIONS: The patient must have a diet free of avocadoes, bananas, tomatoes, plums, eggplant, hickory nuts, pineapple, and mollusks for 2 days prior to and during the collection. Patient should be off all drugs for 3 days if possible. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
5-Nucleotidase						Test no longer available.
A/G Ratio		05		N 11		Test no longer available.
A-Glyoprotein Subunit	ALPHASUBU	SD	Blood	Yellow	5 mL	Referred. Alternate mnemonic: GLYSUB
ABO Group & Rh	ABORH	BBK	Blood	Pink	6 mL	
Abscess Culture - routine bacterial	CAB	MIC	Pus	Dry sterile or C&S swab		Referred. May also require AFB/TB culture. Microbiology Requisition required with sample.
Absolute Neutrophil Count	CBC	HAEM	Blood	Lavender	4 mL	Included in CBC

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Acanthamoeba	ACANTH	MIC	Conjunctival scraping	Contact Microbiology Laboratory for special saline solution		Referred. Microbiology Requisition required with sample. Consult with Clinical Microbiologist before sending.
Acetaminophen (Tylenol)	ACET	CHEM	Blood	PST/Yellow	4.5 mL	
Acetylcholine receptor antibody	ACHOLAB	SD	Blood	Yellow	5 ml	Referred. Send frozen
Acetylcholine receptor antibody- UBC	ACREAB-UBC	SD	Blood	Yellow	5 ml	Referred.
Acetylsalicylic Acid	SAL	CHEM				Order Salicylate (SAL)
ACTH (Adrenocorticotrophic Hormone)	ACTH	SD	Blood	Lavender on ice	4 mL	Referred. Send to lab on ice ASAP. Centrifuge immediately and send frozen. Must be frozen within 1 hour of collection. Collect between 6 – 10 am unless physician order.
ACTH Stimulation Test	ACTHST	SD	Blood	Yellow	4.5 mL	ACTH Stimulation test must be booked through outpatient clinics. Cortisol levels are tested. See ACTH if doctor requests ACTH levels for the same times.
Actinomyces (indicate in comments Actinomyces suspected)	CMISCAN	MIC	Pus IUD	Anaerobic transport medium Dry sterile container		Referred. Sterile container can be used for pus if delivered immediately to Microbiology. If swab required, use calcium alginate. Microbiology Requisition required with sample.
Activated Partial Thromboplastin Time (A.P.T.T.)	PTT	COAG	Blood	Blue	4.5 mL	List anticoagulants. If on heparin therapy, deliver to Lab immediately.
Activated Protein C Resistance	FVLEIDEN					See Factor V Leiden
Adenovirus - PCR	ADVPCR	OE: MIC LAB: SD	Throat, respiratory specimens, eye, urine	Dry sterile container or viral transport	1.5 to 2 mL	Referred. Not required if ordering RESPVPCR, or Viral Gastroenteritis PCR (NORPCR). Culture replaced by PCR testing. Microbiology Requisition required with sample.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Adenovirus PCR CSF	ADVPCRCSF	OE: MIC LAB: SD	CSF	Dry sterile container		Referred. Microbiology Requisition required with sample.
AFB smear & culture Acid Fast Bacilli	TBCULT	MIC	Tissues, respiratory specimens, sputum, urine, etc.	Dry sterile container or Special bottle from Micro for Blood culture		Referred. AFB smear done routinely if sufficient sample Microbiology Requisition required with sample.
Albumin - Blood	ALB	CHEM	Blood	PST/Yellow	4.5 mL	
Albumin - Body Fluid	BFALB	SC	Body Fluid	Green-(Lithium Heparin)	6 ml	See Body fluid (BFALB) for instructions.
Albumin - Synovial	SYNALB	SC	Synovial fluid	Green-(Lithium Heparin)	6 ml	See Synovial fluid (SYNALB) for instructions.
Albumin-Creatinine Ratio	ALBCR	CU	Urine	Dry sterile container	10 mL	
Alcohol - ethyl (Ethanol)	ЕТОН	CHEM	Blood	PST/Yellow Grey-fluoride (legal use)	4.5 mL	Do not use alcohol swab. Do not open tube and expose to air. Measured for clinical purposes ONLY, legal cases (coroner) are referred.
Alcohol - methyl (Methanol)	METHANOL	SD	Blood	PST/SST and PST	2 x 4 mL	Referred. Do not use alcohol swab. Deliver to LAB ASAP. Spin and separate PST/SST top use for Osmol gap testing. DO NOT SPIN PST top. Screening only. If positive, specimen is referred.
Aldolase						Test no longer available; order CPK.
Aldosterone	ALDOS	SD	Blood	Yellow	2 x 5 mL	Referred. Collect between 0700-1000 hrs. Patient must be ambulatory (seated, standing or walking) for at least 2 hours prior to collection. Must include all drugs administered within the last 2 weeks. Centrifuge immediately and send frozen.
Aldosterone/Renin Ratio	ARRATIO	SD	None-Calculation only			Only order when Aldosterone (ALDOS) and Renin (RENIN) are ordered together
Aldosterone	ALDUR	SDU	Urine	24-hour jug with no preservative.	24-hour specimen	Referred Must include all drugs administered within the last 2 weeks. Send frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Alkaline Phosphatase	ALP	CHEM	Blood	PST/Yellow	4.5 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Alkaline Phosphatase Isoenzymes	ALPISO	SD	Blood	Yellow	5 mL	Referred. Differentiates between total and bone isoenzyme. Available only when total activity greater than upper limit of normal. DO NOT FREEZE. Send room temp, no ice pack.
Allergen - Miscellaneous	ALLERGMISC	NOT IN OE	Blood	Yellow	5 ml	Referred.
Allergen – Almond	ALLERGf20	SD	Blood	Yellow	5 ml	Referred.
Allergen -Alternaria (tenuis)	ALLERGm6	SD	Blood	Yellow	5 ml	Referred.
Allergen -Amoxicillin	ALLERGc6	SD	Blood	Yellow	5 ml	Referred.
Allergen -Apple	ALLERGf49	SD	Blood	Yellow	5 ml	Referred.
Allergen -Asparagus	ALLERGf261	SD	Blood	Yellow	5 ml	Referred.
Allergen -Aspergillus fumigatus	ALLERGm3	SD	Blood	Yellow	5 ml	Referred.
Allergen-Asperg niger	ALLERGm207	SD	Blood	Yellow	5 mL	Referred
Allergen -Banana	ALLERGf92	SD	Blood	Yellow	5 ml	Referred.
Allergen -Barley	ALLERGf6	SD	Blood	Yellow	5 ml	Referred.
Allergen -Beef	ALLERGf27	SD	Blood	Yellow	5 ml	Referred.
Allergen -Blueberry	ALLERGf288	SD	Blood	Yellow	5 ml	Referred.
Allergen -Blue Mussel	ALLERGf37	SD	Blood	Yellow	5 ml	Referred.
Allergen -Brazil Nut	ALLERGf18	SD	Blood	Yellow	5 ml	Referred.
Allergen -Budgerigar Serum	ALLERGe79	SD	Blood	Yellow	5 ml	Referred.
Allergen -Cabbage	ALLERGf216	SD	Blood	Yellow	5 ml	Referred.
Allergen -Candida albicans	ALLERGm5	SD	Blood	Yellow	5 ml	Referred.
Allergen-Carrot	ALLERGf31	SD	Blood	Yellow	5 mL	Referred

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen -Casein	ALLERGf78	SD	Blood	Yellow	5 ml	Referred.
Allergen -Cashew	ALLERGf202	SD	Blood	Yellow	5 ml	Referred.
Allergen -Cat Epithelium	ALLERGe1	SD	Blood	Yellow	5 ml	Referred.
Allergen-Celery	ALLERGf185	SD	Blood	Yellow	5 mL	Referred
Allergen -Cheddar Cheese	ALLERGf81	SD	Blood	Yellow	5 ml	Referred.
Allergen-Cherry	ALLERGf242	SD	Blood	Yellow	5 mL	Referred
Allergen -Chick Pea	ALLERGf309	SD	Blood	Yellow	5 ml	Referred.
Allergen -Chicken	ALLERGf83	SD	Blood	Yellow	5 ml	Referred.
Allergen -Chicken Feathers	ALLERGe85	SD	Blood	Yellow	5 ml	Referred.
Allergen - Cladosporium	ALLERGm2	SD	Blood	Yellow	5 ml	Referred.
Allergen -Clam	ALLERGf207	SD	Blood	Yellow	5 ml	Referred.
Allergen -Cocoa	ALLERGf93	SD	Blood	Yellow	5 ml	Referred.
Allergen-Coconut	ALLERGf36	SD	Blood	Yellow	5 ml	Referred
Allergen -Common Birch	ALLERGt3	SD	Blood	Yellow	5 ml	Referred.
Allergen -Corn/Maize	ALLERGf8	SD	Blood	Yellow	5 ml	Referred.
Allergen -Crab	ALLERGf23	SD	Blood	Yellow	5 ml	Referred.
Allergen -Derm. Farinae	ALLERGd2	SD	Blood	Yellow	5 ml	Referred.
Allergen -Derm. pteronyssinus	ALLERGd1	SD	Blood	Yellow	5 ml	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen -Dog Dander	ALLERGe5	SD	Blood	Yellow	5 ml	Referred.
Allergen -Egg White	ALLERGf1	SD	Blood	Yellow	5 ml	Referred.
Allergen -Egg Yolk	ALLERGf75	SD	Blood	Yellow	5 ml	Referred.
Allergen -Feather Mix: (goose, chicken, duck, turkey)	ALLERGex71	SD	Blood	Yellow	5 ml	Referred.
Allergen -Fish (Cod)	ALLERGf3	SD	Blood	Yellow	5 ml	Referred.
Allergen -Garlic	ALLERGf47	SD	Blood	Yellow	5 ml	Referred.
Allergen -Gerbil	ALLERGe209	SD	Blood	Yellow	5 ml	Referred.
Allergen -Gluten	ALLERGf79	SD	Blood	Yellow	5 ml	Referred.
Allergen -Grass Mix (Orchard, meadow, rye, timothy, june)	ALLERGgx1	SD	Blood	Yellow	5 ml	Referred.
Allergen -Guinea Pig Epithelium	ALLERGe6	SD	Blood	Yellow	5 ml	Referred.
Allergen-Haddock	ALLERGf42	SD	Blood	Yellow	5 ml	Referred
Allergen -Halibut	ALLERGf303	SD	Blood	Yellow	5 ml	Referred.
Allergen -Hamster	ALLERGe84	SD	Blood	Yellow	5 ml	Referred.
Allergen -Hazel Nut	ALLERGf17	SD	Blood	Yellow	5 ml	Referred.
Allergen -Herring	ALLERGf205	SD	Blood	Yellow	5 ml	Referred.
Allergen -Honey Bee	ALLERGi1	SD	Blood	Yellow	5 ml	Referred.
Allergen -Horse Dander	ALLERGe3	SD	Blood	Yellow	5 ml	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen –House Dust Mix (Hollister- Stier Labs (house dust), Derm.Pteronyyssinus , Derm.farinae, Blatella germanica)	ALLERGhx2	SD	Blood	Yellow	5 ml	Referred.
Allergen-Kiwi Fruit	ALLERGF84	SD	Blood	Yellow	5mL	Referred
Allergen -Latex	ALLERGk82	SD	Blood	Yellow	5 ml	Referred.
Allergen -Lentils	ALLERGf235	SD	Blood	Yellow	5 ml	Referred.
Allergen -Lobster	ALLERGf80	SD	Blood	Yellow	5 ml	Referred.
Allergen -Macadamia Nuts	ALLERGf345	SD	Blood	Yellow	5 ml	Referred.
Allergen-Mackerel	ALLERGf50	SD	Blood	Yellow	5 ml	Referred
Allergen- Mango	ALLERGf91	SD	Blood	Yellow	5 mL	Referred
Allergen-Melon	ALLERGf87	SD	Blood	Yellow	5 mL	Referred
Allergen -Milk	ALLERGf2	SD	Blood	Yellow	5 ml	Referred.
Allergen -Mold Mix (peniciillium chrysogenum, cladosporium hergarum, aspergillus fumigatus, candida albicans alternaria temuis, setomelanomma rostrata)	ALLERGmx2	SD	Blood	Yellow	5 ml	Referred.
Allergen-Mushroom	ALLERGf212	SD	Blood	Yellow	5 ml	Referred
Allergen-Mustard	ALLERGf89	SD	Blood	Yellow	5 ml	Referred
Allergen-Oat	ALLERGf7	SD	Blood	Yellow	5 ml	Referred
Allergen -Onion	ALLERGf48	SD	Blood	Yellow	5 ml	Referred.
Allergen-Orange	ALLERGf33	SD	Blood	Yellow	5 ml	Referred
Allergen -Oyster	ALLERGf290	SD	Blood	Yellow	5 ml	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen -Paper Wasp	ALLERGi4	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pea	ALLERGf12	SD	Blood	Yellow	5 ml	Referred.
Allergen-Peach	ALLERGf95	SD	Blood	Yellow	5 mL	Referred
Allergen -Peanut	ALLERGf13	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pear	ALLERGf94	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pecan	ALLERGf201	SD	Blood	Yellow	5 ml	Referred.
Allergen-Penicillium G	ALLERGc1	SD	Blood	Yellow	5 ml	Referred.
Allergen-Penicillium V	ALLERGc2	SD	Blood	Yellow	5 ml	Referred.
Allergen -Penicillium notatum	ALLERGm1	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pigeon Droppings	ALLERGe7	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pineapple	ALLERGf210	SD	Blood	Yellow	5 ml	Referred.
Allergen-Pine Nuts	ALLERGf253	SD	blood	Yellow	5 ml	Referred
Allergen -Pine - White	ALLERGt16	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pistachio	ALLERGf203	SD	Blood	Yellow	5 ml	Referred.
Allergen -Pollock	ALLERGf413	SD	Blood	Yellow	5 ml	Referred.
Allergen-Pork	ALLERGf26	SD	Blood	Yellow	5 ml	Referred
Allergen -Potato	ALLERGf35	SD	Blood	Yellow	5 ml	Referred.
Allergen -Rabbit Epithelium	ALLERGe82	SD	Blood	Yellow	5 ml	Referred.
Allergen-Raspberry	ALLERGf343	SD	Blood	Yellow	5 mL	Referred
Allergen-Rice	ALLERGf9	SD	Blood	Yellow	5 ml	Referred

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen -Rye	ALLERGf5	SD	Blood	Yellow	5 ml	Referred.
Allergen -Salmon	ALLERGf41	SD	Blood	Yellow	5 ml	Referred.
Allergen -Scallop	ALLERGf338	SD	Blood	Yellow	5 ml	Referred.
Allergen -Sesame Seed	ALLERGf10	SD	Blood	Yellow	5 ml	Referred.
Allergen -Shrimp	ALLERGf24	SD	Blood	Yellow	5 ml	Referred.
Allergen -Sole	ALLERGf337	SD	Blood	Yellow	5 ml	Referred.
Allergen -Soya bean	ALLERGf14	SD	Blood	Yellow	5 ml	Referred.
Allergen -Squid	ALLERGf258	SD	Blood	Yellow	5 ml	Referred.
Allergen -Strawberry	ALLERGf44	SD	Blood	Yellow	5 ml	Referred.
Allergen - Succinylcholine	ALLERGc202	SD	Blood	Yellow	5 ml	Referred.
Allergen- Sunflower Seed	ALLERGk84	SD	Blood	Yellow	5 mL	Referred
Allergen - Tomato	ALLERGf25	SD	Blood	Yellow	5 ml	Referred.
Allergen -Tree Mix 1: (oak, elm, sycamore, willow, cottonwood)	ALLERGtx4	SD	Blood	Yellow	5 ml	Referred.
Allergen -Tree Mix 6: (Box Elder, Common Silver Birch, American beech, oak, walnut)	ALLERGtx6	SD	Blood	Yellow	5 ml	Referred.
Allergen-Trout	ALLERGf204	SD	Blood	Yellow	5 ml	Referred
Allergen -Tuna	ALLERGf40	SD	Blood	Yellow	5 ml	Referred.
Allergen-Turkey Meat	ALLERGf284	SD	Blood	Yellow	5 ml	Referred

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Allergen -Walnut	ALLERGf256	SD	Blood	Yellow	5 ml	Referred.
Allergen -Weeds Mix (English Plantain, ribwort, lamb's quarters, goosefoot, Russian thistle, saltwort, ragweed, mugwort)	ALLERGwx1	SD	Blood	Yellow	5 ml	Referred.
Allergen -Wheat	ALLERGf4	SD	Blood	Yellow	5 ml	Referred.
Allergen -White bean	ALLERGf15	SD	Blood	Yellow	5 ml	Referred.
Allergen -White Faced Hornet	ALLERGi2	SD	Blood	Yellow	5 ml	Referred.
Allergen - Yeast	ALLERGf45	SD	Blood	Yellow	5 ml	Referred.
Allergen -Yellow Hornet	ALLERGi5	SD	Blood	Yellow	5 ml	Referred
Allergen - Yellow Jacket	ALLERGi3	SD	Blood	Yellow	5 ml	Referred.
Alpha Fetoprotein - Maternal	MST	SD				Referred. See Maternal Serum Screening ( 2nd Trimester)
Alpha Fetoprotein (Tumour marker)	AFPT	SD	Blood	Yellow	5 mL	Referred. Send frozen
Alpha-1-Antitrypsin	ATRYP	SD	Blood	Yellow	5 mL	Referred.
Alpha-1-Antitrypsin, Feces	A1AF	SD	Stool	24- hr Stool collection container- obtain from lab.	24-hour specimen	Referred. 24-hr specimen preferred; random specimen is acceptable. Entire sample required for processing. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Alpha-1-Antitrypsin Proteotype	A1APROTEO	SD	Blood	Yellow	5 mL	Referred. Referred if total A1A (ATRYP) low. Send frozen
Alpha-2- Macroglobluin	EPHORS	SD				Referred Included in Electrophoresis Protein testing order EPHORS.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Alpha Sub Unit	ALPHASUBU	SD	Blood	Yellow	5 mL	Referred.
ALT (SGPT) Alanine Amino Transferase	ALT	CHEM	Blood	PST/Yellow	4.5 mL	
Aluminum	AL	SD	Blood	Navy #368381	6 mL	Referred Deliver to LAB ASAP. Spin, separate ASAP. Store in fridge
Aluminum	ALU24	SDU	Urine	24-hour jug	24-hour specimen	Referred. Diet/Drug Restrictions: Avoid fruit and juices, chocolate, beer, coffee and teas for 24hrs prior to collection. Antacids containing aluminium can greatly elevate urine aluminium output. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Amikacin – Peak	AMIKP	SD	Blood	Red	5 mL	Referred. Collect 15 minutes Post 1 Hour IV or 30 minutes Post 30 minute I.V drug administration or 1 Hour Post IM. Send frozen
Amikacin - Trough	AMIKT	SD	Blood	Red	5 mL	Referred. Collect trough specimen within 30 minutes before dose is administered Send frozen
Amino Acids - Metabolic Screen	AMINOMET	SDU	Urine	Screw top container	10 mL Minimum 1 mL	Referred Send frozen Provide clinical diagnosis and age. If testing is positive, amino acid quantitation will automatically be done on same sample. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Amino Acids - Quantitative blood	AMINO	SD	Blood	Yellow	Adult 5 mL Paeds 1 mL	Referred Separate and freeze ASAP. Fasting preferred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Amino Acids - Quantitative urine		SDU				Test no longer available. Order Amino Acid Metabolic Screen instead.: AMINOMET
Aminophylline	THEO	SD				Order Theophylline. (THEO)
Amiodarone	AMIO	SD	Blood	Red	6 mL	Referred. Collect prior to administration of next dose.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Ammonia	АММ	С	Blood	Lavender on ice	Adult 4 mL child 1 mL	Centrifuge the sample as soon as possible, separate and place plasma on ice. Separation should be done within 15 min of Collection. Stable 2hrs at 2-8C or 3wks at -20 C or colder. Allow specimen to reach room temperature prior to analysis. Hemolyzed samples should NOT be used.
Amobarbital	AMOB	SD	Blood	Red	6 ml	Referred.
Amoeba - Direct examination	OP	MIC	Stool Aspirated material from edge or base of abscess in liver, skin, bowel, etc.	Parasite container (SAF fixative) Dry sterile container (transport <u>immediately</u> to Microbiology)	to fill line O&P transport	Referred. Microbiology Requisition required with sample. Mix well to allow preservative to work. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Amoeba - Serology	AMOEBA	MIC	Blood	Red or Yellow	5 mL	Referred. Microbiology Requisition required with sample.
Amphetamines	AMPUR	CU	Urine	Screw top container	25 mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen. (DRUGUR)
Amylase	AMY			No loi	nger available.	· · · · · · · · · · · · · · · · · · ·
Amylase – Urine Random	AMYU			No loi	nger available.	
ANA (Antinuclear Antibody)	ANA	SD	Blood	Red	6 mL	Referred.
Anaerobic Culture	CMISCAN or CBX	MIC	Order as appropriate for specimen type - includes aerobic and anaerobic culture	Sterile container or Anaerobic container	Optimum sample is an aspirate or pus	Referred. Microbiology Requisition required with sample. If delay in transit to lab place in anaerobic container (available from Microbiology).
Androstenedione	ANDROST	SD	Blood	Yellow	5 mL	Referred. Fasting no longer required. For women, collect one week before or after menstrual period.
Angiotensin Converting Enzyme	ACE	SD	Blood	Yellow	5 mL	Referred 8 hour fasting. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Anion Gap	LYTES	С	Blood	PST/SST	4.5 mL	Anion Gaps are calculated when LYTES and CO2 are ordered.
Anti-Adrenal Antibody	AADR	SD	Blood	Yellow	5 mL	Referred
Anti Cardiolipin Antibodie s	ACARDIO	SD	Blood	Yellow	5 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Anti-Cyclic Citrullinated Peptide Antibodies (CCP)	ANTICCP	SD	Blood	Red	6 mL	Referred. Separate and freeze within 2hrs of collection
Anti-Diuretic Hormone		SD				See Copeptin
Anti ENA Antibodies	ENA	SD	Blood	Yellow	5 mL	Referred.
Anti-Glomerular Basement Antibody	AGBM	SD	Blood	Yellow	5 mL	Referred
Anti-Histone Antibody	ANA	SD	Blood	Red	6 mL	Referred Order ANA, this testing is done ONLY when ANA is positive.
Anti-Insulin Antibody	INSAB	SD	Blood	Yellow	5 mL	Referred
Anti-Intrinsic Factor	AIFAB	SD	Blood	Yellow	5 mL	Referred
Anti-Liver-Kidney Microsome Antibody	LKMAB	SD	Blood	Yellow	5 mL	Referred
Anti-Lupus Anticoagulant	LUPUSAB	SD	Blood	Blue	2 x 4.5 mL	Referred. Spin and separate twice, freeze. Send frozen. Test should not be performed if patient receiving heparin or oral anticoagulant.
Anti-Microsomal Antibody	ATA	SD				Order Anti Thyroid Antibody (ATA)
Anti-Mitochondrial Antibody	IFA	SD				Included in IFA screen, Order IFA
Anti-Mouse Antibody	ANTIMOUSE	SD	Blood	Red	6 mL	Referred.
ANCA	ANCA	SD	Blood	Yellow	4 mL	Referred. Includes testing for Anti MPO and Anti PR3 performed by immunoassay method
ANCAIFA	ANCAIFA	SD	Blood	Yellow	4 mL	Referred. Testing by Immunofluorescence for cytoplasmic patterns-not for routine order. See ANCA
Anti-Nuclear Antibody	ANA	SD	Blood	Red	6 ml	Referred.
Anti-Pancreatic Islet Cell Antibody	PICAB	SD	Blood	Red	6 ml	Referred
Anti-Parietal Cell Antibody	IFA	SD				Included in IFA screen, Order IFA
Anti-Platelet antibody or Platelet Associated IgG						Test not available

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Anti-Phospholipid Antibody	ACARDIO	SD				Order Anti Cardiolipin Antibodies (ACARDIO)
Anti-Saccharomyces cerevisiae Antibodies	ASCAB	SD	BLOOD	Red	6 ml	Referred.
Anti-Skeletal Muscle Antibody	ASKM	SD	Blood	Yellow	5 mL	Referred
Anti-Smooth Muscle Antibody	IFA	SD				Included in IFA screen, Order IFA
Anti-Thyroid Antibody	ATA	SD	Blood	Yellow	5 mL	Referred. Anti TPO Antibodies are measured as well as anti-thyroglobulin antibodies.
Anti-Thyroid Peroxidase Antibody	ATPO	SD	Blood	Yellow	5 ml	Referred
Antibody Elution	ELU	Not in OE BBK	Blood	Pink	2 x 6 mL	To be ordered by Transfusion Medicine staff only
Antibody identification	ABID	Not in OE BBK	Blood	Pink Lavender	3 x 6 mL 1 x 4 mL	To be ordered by Transfusion Medicine staff only
Antibody Titration	TITRE	Not in OE BBK	Blood	Pink	6 mL	To be ordered by Transfusion Medicine staff only
Antineuronal Nuclear Antibody Type 1 (Anti Hu)	PARANEO	SD				See Paraneoplastic Antibody Panel
Antineuronal Nuclear Antibody Type 2 (Anti R1)	PARANEO	SD				See Paraneoplastic Antibody Panel
Antineuronal Nuclear Antibody Type 3	PARANEO	SD				See Paraneoplastic Antibody Panel
Anti-thrombin III	LAB: AT OE: AT3	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if patient receiving chemotherapy, Heparin or Coumadin.
APCR - FV Resistance to Protein C with Confirmation	FVLEIDEN	SD				See Factor V Leiden
Apolipoprotein A1	APOA	SD	Blood	Yellow	5 mL	Referred
Apolipoprotein B	APOB	SD	Blood	Yellow	5 mL	Referred
APT Test	APT	HAEM	Gastric or Meconium	Screw top container		

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Arbovirus serology Includes: SLE; West Nile, Powasson; Dengue; EEE; WEE; Zika, Chikungunya	ARBO	SD	Blood	Red or Yellow	5 mL	Referred. Acute and convalescent sera required. Include clinical and travel history. National Microbiology Laboratory(NML) Viral Zoonoses requisition required
Arsenic-Whole Blood	ARSEB	SD	Blood	Navy #368381	6 mL	Referred.
Arsenic	ARSU24	SDU	Urine	24-hour jug	24-hour urine	Referred. DIET RESTRICTION: Avoid seafood consumption for five days prior to collection. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Arsenic Urine- Random	ARSEURANDOM OE:ARSEURANDO	SDU	Urine	Sterile container	13 mL	Referred DIET RESTRICTION: Avoid seafood consumption for five days prior to collection. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Arylsulfatase	ARYL	SD	Blood	Green-(Sodium Heparin)	2 x 6 mL	Referred. Collect before noon on Mon, Tue or Wed.; not Stat Holiday.
Ascariasis	OP	MIC	Stool Worm	SAF Fixative Dry container	to fill line	Referred. Microbiology Requisition required with sample. Mix well to allow preservative to work. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Ascorbic Acid (Vitamin C)	VITC	SD	Blood	Yellow	5 mL	Referred. Send frozen Protect from light. Wrap in foil. Deliver to lab ASAP.
ASOT (Anti-Strep O Titre)	ASQL	SD	Blood	Yellow	5 mL	Referred
Aspergillosis - Culture	CFUN	MIC	Sputum, bronchial washings, biopsy, bone marrow, etc.	Dry, sterile container		Referred. Microbiology Requisition required with sample. Indicate aspergillosis suspected.
Aspergillus fumigatus IgE Antibody	ASPERIGE	SD	Blood	Red	6 mL	Referred.
Aspergillus fumigatus IgG Antibody	ASPERIGG	SD	Blood	Red	6 ml	Referred.
Aspergillus-Invasive (Galactomannan)	GALACTO	MIC				See Galactomannan antigen Microbiology Requisition required with sample.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Aspergillus Precipitans	ASPAB	SD	Blood	Red	6 mL	Referred Send frozen
AST(Aspartate Amino transferase)	AST	CHEM	Blood	PST/ Yellow	4.5 mL	Can only be ordered as an exception test.
Athlete's foot	CFUN	MIC				Order CFUN Microbiology Requisition required with sample.
Ativan (Lorazepam)	ATIVAN	SD	Blood	Red	6 mL	Referred. Draw before next dose.
B12	VB12	CHEM	Blood	PST\Yellow	4.5 mL	
B12 Unsaturated Binding Capacity	B12BIND	SD	Blood	Wrapped Yellow -on ice	5 mL	Referred. Protect from light.
Bacterial Vaginosis	VS	MIC	Smear/swab of vaginal discharge	C&S swab or prepared smear of vaginal discharge		Referred. Microbiology Requisition required with sample.
Barbital	BARBI	SD	Blood	Red	6 mL	Referred.
Barbiturate Fractionation (Quantitative)	BARB	SD	Blood	Red	6 mL	Referred. Includes Butabarbital, Butalbital, Pentobarbital, Amobarbital, Barbital, Phenobarbital, and Secobarbital.
Barbiturates (Urine)	DRUGURREF	SDU				See DRUGURREF. Order BARB if specifically looking for Barbiturates
Bartonella hanselae Serology (Cat Scratch)	BART	SD	Blood	Red or Yellow	5 mL	Referred. Etiological agent of cat scratch disease. Clinical history required. Referred.
Bartonella PCR	BARTPCR	MIC		Dry Sterile Container		Referred Microbiology Requisition required with sample.
BCR-ABL Rearrangement (Q-PCR	BCRABL	SD	Blood	Lavender	2 x 4 mL	Referred. Available Mon to Wed.
Bence-Jones Protein 24hr sample (Immuno. quant IEP/urine 24 hrs) **Preferred specimen type	IMMGLUR	SDU	Urine	24-hour jug	24-hour specimen	Referred. Refrigeration of the specimen preferred. Testing will include, Immunoglobulin urine/IEP urine, IEPU. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Benzodiazepines screen	BENZOS	SD	Blood	Yellow	5 mL	Referred
Benzodiazepines urine	BZOUR	CU	Urine	Screw top container	25 mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen. (DRUGUR).
Beta 2 Glycoprotein 1 Antibodies	B2GLYPRO	SD	Blood	Yellow	5 mL	Referred Spin, separate and freeze ASAP
Beta 2 Microglobulin	B2MCG	SD	Blood	Yellow	5 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Beta 2 Microglobulin, Urine	B2U	SDU	Urine	Screw top container - special collection instructions.	10 mL	Referred. Ask patient to void and discard this urine. Patient must then drink a large glass of water and collect urine sample within one hour. Freeze within 1hr of collection.
Beta Hydroxybutyrate (ketone)	BHYDROXY	CHEM	Blood	PST/Yellow	5 mL	
Beta HCG	BHCG	CHEM	Blood	PST/Yellow	5 mL	Include diagnosis.
Beta Strep - Throat (Group A culture)	СТ	MIC	Throat swab	C&S swab (Blue cap) Throat swab (liquid transport medium) (White cap)		Referred. Microbiology Requisition required with sample. Group A antigen routinely done on patients $\leq$ 18yr if collected using the correct swab. See below
Beta Strep - Throat (Group A direct antigen)	GAS	MIC	Throat swab - only one swab required for culture and antigen	Throat swab (liquid transport medium) (white cap)		Routinely done on patients $\leq$ 18 if correct swab sent. Microbiology Requisition required with sample.
Beta Strep - Vaginal (Group B)	CGBS	MIC	Vaginal/rectal swab	C&S swab		Referred. Microbiology Requisition required with sample. Screening during pregnancy
Beta Transferrin	BTRANS	SD	Fluid (Indicate source)	Screw top container	2 mL	Referred. 2.0 mL of body fluid (nasal, otic, etc.). Direct collection may be done with a pipette, syringe, test tube or micro collection device. Send frozen
Bicarbonate	CO2	CHEM				
Bile Acids	BILEAC	SD	Blood	Yellow	5 mL	Referred. Centrifuge immediately and send frozen. Referred
Bilirubin (Total) (Direct)	BILIT	CHEM	Blood	PST/Yellow	4.5 mL	
Biopsy Culture - Surgical/OR (includes aerobic and anaerobic culture)	CBX	MIC	Bone, lymph node, tissue, etc.	Dry sterile container. If delay in transit use anaerobic container.		Referred. Microbiology Requisition required with sample. May also request additional tests, i.e. AFB/TB culture.
Blastomycosis - Culture	CFUN	MIC	Skin scraping, lesion aspirates, bronchial washing, sputum, biopsy, bone marrow, CSF	Dry sterile container		Referred. Microbiology Requisition required with sample. MUST notify lab this is suspected.
Blastomycosis - Serology	BLASTO	SD	Blood	Red or Yellow	5 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Bleeding Time						Testing no longer performed. Replaced by Platelet Function Screen (PFS) Include LAB-7-HM-F00009 Patient information form
Blood Culture - routine aerobic and anaerobic	СВ	MIC	Blood	Aerobic and Anaerobic bottles or Paediatric bottle	Adult: 5-10 mL per bottle Child :1-3mL	Referred. Collection date and time required. Store and ship at Room Temperature. Microbiology Requisition required with sample. <b>NOTE</b> : Do NOT allow to cool as this may result in the death of fastidious bacteria.
Blood Culture - single bottle	CBP	MIC	Blood	Paediatric or aerobic bottle	1-3 mL	Referred. Collection date and time required. Store and ship at Room Temperature. Microbiology Requisition required with sample. <b>NOTE</b> : Do NOT allow to cool as this may result in the death of fastidious bacteria.
Blood Culture - if Dx endocarditis	CBE	MIC	Blood	Aerobic and Anaerobic bottles or Paediatric bottle	Adult: 5-10 mL per bottle Child :1-3mL	Referred. Collection date and time required. Store and ship at Room Temperature. Microbiology Requisition required with sample. <b>NOTE</b> : Do NOT allow to cool as this may result in the death of fastidious bacteria.
Blood Culture - if yeast suspected	CBY	MIC	Blood	Aerobic and Anaerobic bottles or Paediatric bottle	Adult: 5-10 mL per bottle Child :1-3mL	Referred. Collection date and time required. Store and ship at Room Temperature. Microbiology Requisition required with sample. <b>NOTE</b> : Do NOT allow to cool as this may result in the death of fastidious bacteria.
Blood Culture - dimorphic fung	CBFUN	MIC	Blood	Aerobic Bottles x 2	5 to 10 mL per bottle	Referred. Collection date and time required. Store and ship at Room Temperature. Microbiology Requisition required with sample. <b>NOTE</b> : Do NOT allow to cool as this may result in the death of fastidious bacteria
Blood Gases (pH, pCO <sub>2</sub> , pO <sub>2</sub> , calculated HCO <sub>3</sub> , %O <sub>2</sub> sat.,pO2(A-a)e)	ABG	SC	Blood - arterial	Heparinized syringe on ice	2 ml	Deliver to LAB ASAP. If expected delivery greater than 20 minutes send on ice See procedure for blood gas procurement under chemistry section.

TEST	MNEMONIC	OE/LAB	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Blood Gases (pH, pCO <sub>2</sub> , pO <sub>2</sub> , calculated HCO <sub>3</sub> , Base Excess)	LAB: ABGC OE: CORDABG	SC	Blood - arterial Cord	Heparinized syringe on ice	2 ml	Deliver to LAB ASAP. If expected delivery greater than 20 minutes send on ice Must be tested within 2 hours of birth
Blood Gases (pH, pCO <sub>2</sub> , pO <sub>2</sub> , calculated HCO <sub>3</sub> , %O <sub>2</sub> sat.)	CBG	SC	Blood - Capillary	Heparinized Capillary on ice	150 uL	Collected by LAB staff. Transport immediately to LAB for processing.
Blood Gases (pH, pCO <sub>2</sub> , calculated HCO <sub>3</sub> ),	VBG	SC	Blood - venous	Green (Sodium Heparin) 4mL on ice/ PICO 50	2 ml	Deliver to LAB ASAP. If expected delivery greater than 20 minutes send on ice See procedure for blood gas procurement under chemistry section.
Blood Gases (pH, pCO <sub>2</sub> , pO <sub>2</sub> , calculated HCO <sub>3</sub> , Base Excess)	LAB: VBGC OE: CORDVBG	SC	Blood - venous Cord	Heparinized syringe on ice	2 ml	Deliver to LAB ASAP. If expected delivery greater than 20 minutes send on ice Must be tested within 2 hours of birth
Blood Urea Nitrogen (BUN)	BUN	CHEM	Blood	PST/Yellow	4.5mL	
Body Fluid ( <b>excluding</b> blood, CSF and urine) - Routine bacterial culture	CBF CMISC	MIC	Pleural, peritoneal, pericardial, chest joint/synovial, amniotic fluids, etc.	Dry sterile container. If volume very small inoculate immediately into Paediatric blood culture bottle	5mL	Referred. Microbiology Requisition required with sample. Other culture, e.g. AFB/TB or viral are often required. Peritoneal and Pleural fluids should be ordered as CMISC all other sterile body fluids should be ordered as CBF.
Body Fluid – Albumin	BFALB	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Chloride	BFCHL	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Cell Count	BFCOUNT	SC	Body Fluid	Lavender	4 mL	Includes WBC and RBC count
Body Fluid – Differential	BFCOUNT	SC	Body Fluid	Lavender	4 mL	Included in BFCOUNT
Body Fluid – Eosinophils	EOMISC	SC	Body Fluid	Sterile container	5 mL	Referred
Body Fluid – Glucose	BFGLU	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Potassium	BFK	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – LDH	BFLDH	SC	Body Fluid	Green (Lithium Heparin)	6 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Body Fluid – pH	BFPH	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Phosphorus	BFPHOS	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Protein	BFPROT	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Trigylceride	BFTRIG	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Body Fluid – Urate (Uric Acid)	BFURIC	SC	Body Fluid	Green (Lithium Heparin)	6 mL	
Bone Marrow Testing	ВМ	SD	Bone Marrow Aspirate	Lavender x2 Green (Sodium Heparin) Tissufix prefilled Histology container Dry Sterile container	1-2 mL x 2 1-2 mL Biopsy	Referred. Testing must be booked with Hematology dept 623-3255. Testing to be collected Mon-Wed only. Includes CBC and RETIC testing to be collected on the same day as Bone marrow.
Bordetella (Pertussis) PCR	BORDPCR	MIC	Nasopharyngeal swab	UTM media-Viral Transport medium (pink liquid)		Referred. Microbiology Requisition required with sample. Culture no longer done, replaced by PCR test
Borrelia burgdorferi	LYME	SD	Blood	Red or Yellow	5 mL	Referred.
BNP – B Type Naturietic Peptide	BNP	CHEM	Blood	Lavender	4 ml	
Bronchial Washing - Routine culture	CRESP	MIC	Respiratory aspirates, bronchial washings, etc.	Dry sterile container	1 to 2 ml minimum	Referred. Microbiology Requisition required with sample. AFB/TB, fungal or viral culture may also be required.
Bronchial Washing - Viral PCR Panel	RESPVPCR	MIC	Respiratory aspirates, bronchial washings, etc.	Dry sterile container/ Viral swab	1 to 2ml minimum	Referred. Microbiology Requisition required with sample. AFB/TB and fungal culture may also be required. Culture replaced by PCR testing. Includes: Influ A&B, ParaInflu 1, 2,3&4, Rhinovirus, Enterovirus, Coronavirus, Metapneumovirus, Bocovirus, RSV, Adenovirus, NL63/OC43/229E/HKU1, Parenchovirus. and Mycoplasma pneumoniae.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Brucella - Culture	СВ	MIC	Blood	Aerobic blood culture bottle	8-10 mL	Referred. Microbiology Requisition required with sample. Collection date and time required. Contact Micro Lab that Brucella suspected so additional precautions and procedures may be followed.
Brucella - Serology	BRUCAB	SD	Blood	Red or Yellow	5 mL	Referred. Not a substitute for isolation and identification of the organism. Vaccine history should be noted. Acute and convalescent sera required.
Bug (tick, louse, etc.)	BUGID	MIC	Bug	Dry sterile container		Referred. Microbiology Requisition required with sample. Try not to squash insect. Include completed TMH Bug Identification Requisition
Buprenorphine	BUPUR	CU	Urine	Screw top container	10 mL	To be used for individual drug testing. Detects buprenorphine, norbupenorphine norbupenorpineB-D- gluceronide, and bupenorpineB-D- gluceronide For a complete screening, order SUBOXU.
Burn Culture	CBURN	MIC	Skin/surface swabs from patients with burns	C&S swab and occasionally tissue biopsy		Referred. Microbiology Requisition required with sample.
Butabarbital	BUTB	SD	Blood	Red	6 mL	Referred.
Butalbital	BUTL	SD	Blood	Red	6 mL	Referred.
C282Y and H63D genetic mutations	HGENE	SD				Referred. See HGENE test. These are the two gene mutations that are tested in the HGENE test.
C Reactive Protein (CRP)	CRP	CHEM	Blood	PST/Yellow	4.5 mL	
C Reactive Protein (CRP) High Sensitivity for Cardiovascular Risk Assessment	CRPHS	CHEM	Blood	PST/Yellow	4.5 mL	
C1 Esterase Inhibitor	C1ESTIN	SD	Blood	Yellow	5 mL	Referred Deliver to LAB ASAP. Specimen should be aliquotted within 2hrs of collection.
C1 Esterase Functional Assay	C1ESTF	SD	Blood	Blue	4.5 mL	Referred. Centrifuge immediately and send frozen.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
C1Q Binding (Immune Complexes)	LAB: C1Q OE: C1	SD	Blood	Lavender	4 mL	Referred. Centrifuge immediately and send frozen.
C3 and C4 Complement	C3C4	SD	Blood	Yellow	5 mL	Referred.
C677T Mutation	MTHFR	SD				Order Methylenetetrahydrofolate Reductase (MTHFR)
Ca 125	CA125	SD	Blood	Yellow	5 mL	Referred.
Ca 15-3	CA153	SD	Blood	Yellow	5 mL	Referred.
Ca 19-9	CA199	SD	Blood	Yellow	5 mL	Referred.
Ca27	CA27	SD	Blood	Yellow	5 mL	Referred.
Cadmium	CADBL	SD	Blood	Navy #368381	6 mL	Referred. Do not freeze.
Cadmium	LAB: CADU24 OE: CAD24	SDU	Urine	24-hour jug	24-hour specimen	Referred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Calcitonin	CALC	SD	Blood	Yellow	5 ml	Referred. Fasting specimen. Send frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Calcium	CA	CHEM	Blood	PST/Yellow	4.5 mL	
Calcium Urine (24hr)	CAU24	CU	Urine	24-hour jug with preservative	24-hour specimen	20 mLs of 6N HCl See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Calcium Urine (Random)	CAU	CU	Urine	Urine container	24 ml	pH adjusted in Lab.
Calcium ionized	CAION	SC	Blood	SST/ PICO 50 Syringe		
Caliculi, Renal	CALCULUS	SD				See Stone Analysis (CALCULUS)
Calprotectin-Stool	CALPRO	SD	Stool	Sterile container	Pea sized portion	Referred. 72hrs between repeat testing First morning bowel movement. Deliver to LAB ASAP Store and ship at room temperature or 4C.
Campylobacter culture	CS	MIC	Stool	Carey Blair transport medium	Walnut sized piece	This test included in routine stool culture . See <u>Section 10: Collection Instructions</u> for patient instruction sheet. Microbiology Requisition required with sample.
Candida		MIC				See Yeast. Microbiology Requisition required with sample.
Cannabinoid (Tetrahydrocannabin ol/ THC	THCUR	CU	Urine	Screw top container	25 mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen. (DRUGUR)

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Carbamazepine (Tegretol)	CARBAM	SD	Blood	Red PST/Yellow	4 mL	Referred. Collect prior to dose
Carbon Dioxide	CO2	CHEM	Blood	PST/Yellow	5 mL	Not included in LYTES.
Carbon Monoxide (Carboxyhemoglobin	CARBOXY	SC	Blood	Green (Sodium Heparin) on ice	6 ml	Send on ice. Must be received in lab within 4 hours of collection
Carcinoembryonic Antigen (CEA)	CEA	SD	Blood	Yellow	5 mL	This tumour marker is not meant for screening purposes but to monitor the patient's progress or regression once a firm diagnosis has been established.
Carnitine	CARNI	SD	Blood	Red	6 mL	Referred. Send frozen.
Carotene	CARO	SD	Blood	Yellow (wrapped)	2 x 5 mL	Referred Unstable when exposed to light. Cover with aluminium foil or masking tape to protect from light. Avoid hemolysis.
Cast (Urinary)	URINE	CU	Urine	Screw top container		Fresh urine sample Add a comment stating looking for casts. Performed if abnormal elements in URINE
Cat Scratch Disease (Bartonella) Serology	BART	SD	Blood	Red or Yellow	4 mL	Referred Clinical history required.
Catecholamine - Resting	CATPREST	SD	Blood	Green (Sodium Heparin)	6 mL	Referred. No drugs 24 hr pre-test and diet restrictions. Contact Laboratory for Special Instructions. Centrifuge immediately and send frozen.
Catecholamine - Standing	CATPSTAND	SD	Blood	Green (Sodium Heparin)	6 mL	Referred. No drugs 24 hr pre-test and diet restrictions. Contact Laboratory for Special Instructions. Centrifuge immediately and send frozen.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Catecholamines Urine	CATUF	SDU	Urine	24-hour jug with preservative (20 ml 6N HCL) Maybe done on random sample (TMH)	24-hour specimen 25 ml	Referred Restrict caffeine, nicotine and alcohol 24hr prior to collection; discontinue Methyldopa (Aldomet) at least 5 days prior to collection. Other drugs usually do not interfere with this assay. Final pH must be maintained from 2-4. Random specimen must be acidified immediately to pH <5.0 See for <u>Section 10: Collection</u> Instructions patient instruction sheet.
Catheter Tip Culture - Actual Line tip	CCATH	MIC	Line tip	Dry sterile container	5-7 cm	Referred. Microbiology Requisition required with sample. Aseptically cut off 5 to 7 cm.
Catheter Tip Culture - Swab	CCATH	MIC	Swab of site	C&S swab		Referred. Microbiology Requisition required with sample.
CBC (Complete Blood Count)	CBC	HAEM	Blood	Lavender	4 mL	Includes testing for: - Haemoglobin - Red Cell Count - Hematocrit – MCV, MCH, MCHC - White Cell Count, Platelet count - 5-Cell Diff Screen.
Cyclic Citrullinated Peptide Antibodies (CCP) or Anti-CCP	ANTICCP	SD	Blood	Red	6 mL	Referred.
Celiac Profile	TRANSGLUT	SD	Blood	Yellow	5 mL	Referred. Includes Transglutaminase antibodies and IgA
Cerebellar Antibodies	PARANEO	SD				Referred. See Paraneoplastic Antibody Panel
Ceruloplasmin	CERULO	SD	Blood	Yellow	5 mL	Referred. Deliver to LAB ASAP. Specimen should be aliquotted within 2hrs of collection
CH 50	CH50	SD	Blood	Yellow	5 mL	Referred Send to lab ASAP. Specimen must clot at 22-37C for 30-60 mins before centrifugation.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Chemo Profile (TMH)	CHEMO	CHEM	Blood	PST/Yellow	4.5 mL	Includes: GLUR BUN CR LYTES LDH AST ALP GGT ALT BILIT CA URIC CO2
Chemo Profile (SJRH)	CHEMOSJ	CHEM	Blood	PST/Yellow	4.5mL	Includes: GLUR CR LYTES LDH AST ALP ALT BILIT ALB PROT CA CO2
Chicken Pox						See Varicella Zoster.
Chlamydia psittaci	CHLPSIT	SD	Blood	Yellow	5 mL	Referred. Include clinical history and risk factors, required by reference laboratory
Chlamydia pneumoniae serology	Test discontinued					Referred. For diagnosis of acute infection see Chlamydia pneumoniae PCR (CHLPNE)
Chlamydia pneumoniae PCR	CHLPNE	MIC	Nasopharyngeal swab, BAL, Lung biopsy/tissue, throat	Nasopharyngeal swab preferred, Contact Micro lab for additional collection information and container		Test referred, done by nucleic acid amplification Microbiology Requisition required with sample. Sputum or nasal swab NOT suitable Includes both Chlamydia pneumoniae and Mycoplasma pneumoniae- PCR testing

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TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Chlamydia trachomatis - Direct antigen (DNA)	CHLAMGCC-Cervix CHLAMGCE-Eye CHLAMGCEC- Endocervix CHLAMGCP-Penis CHLAMGCR-Rectal CHLAMGCT-Throat CHLAMGCURETH- Urethra CHLAMGCVAG- Vaginal CHLAMGCVV- Vaginal Vault CHLAMGCUR-Urine	SD SD SD SD SD SD SD SD	Swabs: Vaginal and endocervical collected directly into transport media (DO NOT pre- moisten swabs in transport media) Urine: first-void, approx.30-50 mLs,	Female: swab or urine Male: urine NOTE: male collection kit no longer exists, "female" swab maybe used to collect visible discharge at the urethral opening.	30-50 mLs first void urine or swab	Referred. Microbiology Requisition required with sample. This is the most common request for Chlamydia. A single swab or urine may be sent for testing. Ordered according to source. Swabs are stable at room temperature Urine: keep refrigerated, deliver within 24hrs. See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet. <b>Note:</b> Indicate <b>Source</b> on Requisition
Chlamydia	CHLAMGCUR-Urine CHLMICTRK	MIC	Conjunctival swab,	Microtrak collection kit		Referred. Microbiology Requisition required
- direct fluorescent antibody stain	UNLINICI KK	S	nasopharyngeal aspirate	with glass slide		with sample. Collection kits are available from Laboratory (dispatch fridge).
Chlordiazepoxide (Librium)	LIB	SD	Blood	Red	5 ml	Referred. Draw before next dose is administered.
Chloride	LYTES	CHEM	Blood	PST/Yellow	4.5 mL	Included in Electrolytes.
Chloride Urine (24 hour)	LYTESU24	CU				See Electrolytes (Na, K, Cl) - 24-hour urine
Chloride Urine (Random)	LYTESU	CU				See Electrolytes (Na, K, Cl) - Random urine
Cholesterol	CHOL	CHEM	Blood	PST/Yellow	4.5 mL	For fractionation of cholesterol order LIPID
Cholinesterase Phenotyping	CHOLIN	SD	Blood	Yellow	5 mL	Referred Spin, separate and send frozen. Includes total cholinesterase and phenotyping.
Cholinesterase Total	CHETOT	SD	Blood	Yellow	5 mL	Referred. Spin, separate and send frozen. Included in Cholinesterase Phenotyping CHOLIN
Chorionic- Gonadotropin	BHCG	CHEM				See HCG Beta Sub-unit
Chromium	CHROMIUM	SD	Blood	Navy #368381	6 mL	Referred. Deliver to lab ASAP. Spin and separate ASAP.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Chromogranin A	CHROMOGRAN	SD	Blood	Lavender	4 mL	Referred. Patients should abstain from proton pump inhibitor medication for 2 weeks prior to collection.
Chromosome - Blood	CHRBLD	SD	Blood	Green Must be Sodium Heparin, not Lithium Heparin	6 mL x 2	Referred. Ship at Room temp. This test <b>MUST</b> be booked Call laboratory booking for collection instructions and appointment. Complete IWK Cytogenetics requisition and deliver to booking prior to patient's appointment.
Citric Acid	CITU24	SDU	Urine	24 hour jug	24 hour specimen	Referred See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
CJD Creutzfeldt-Jakob Disease	CJD	SD	Post-mortem blood *other samples ONLY following discussion with the microbiologist	Lavender	4 tubes x 4 mL	Referred. MUST follow Infection Control Guidelines for transporting and notifying the LAB <u>prior</u> to sending
CJD Creutzfeldt-Jakob Disease	CJD	MIC	CSF *other samples ONLY following discussion with the microbiologist	Sterile	0.5 – 1 mL	Referred. Microbiology Requisition required with sample. MUST follow Infection Control Guidelines for transporting and notifying the LAB prior to sending
CK (CPK) Creatine Kinase	СРК	CHEM	Blood	PST/Yellow	4.5 mL	
Clobazam (Frisium)	CLOB	SD	Blood	Red	5 mL	Referred Send frozen Draw before next dose is administered.
Clomipramine (+ Desclom)	CLOM	SD	Blood	Red	6 mL	Referred No additive. Collect prior to administration of next dose and one week after dose started.
Clostridium difficile (Toxin test)	CDIFF	MIC	Stool	Dry sterile container	Walnut sized piece (liquid stool)	Referred. Microbiology Requisition required with sample. Formed stool <b>will not be processed.</b> See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Clozapine (Clozaril)	CLOZ	SD	Blood	Lav	6 mL	Referred
CMV (Cytomegalovirus) - Immune Status	CMVG	SD	Blood	Yellow	5 mL	Referred. Requires a separate tube if ordered with other tests.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
CMV (Cytomegalovirus) - Recent Infection	CMV	SD	Blood	Yellow	2 x 5 mLcs	Referred. Both CMV IgG and IgM are done
CMV PCR (CMVmRNA) Qualitative test	CMVPCRQUAL	OE: MIC LAB:SD	Urine, respiratory specimens, throat	Dry sterile container or swab in UTM		Referred Microbiology Requisition required with sample. Send to Microbiology ASAP.
CMV PCR (Qualitative) CSF	CMVPCRQUALCSF	OE: MIC LAB:SD	CSF	Dry sterile container		Referred Microbiology Requisition required with sample. Send to Microbiology ASAP
CMV PCR Quantitative test (CMV Viral Load)	CMVPCRQUAN	SD	Blood	Lavender	2 X 4mL	Referred Deliver to Lab ASAP. Spin and separate into 3 tubes and freeze. Send frozen
Cocaine	COCUR	CU	Urine	Screw top container	25 mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen.(DRUGUR).
Coccidioidomycosis - Culture	CFUN	MIC	Respiratory specimens, lesions, etc.	Dry sterile container		Referred. Microbiology Requisition required with sample. Inform Microbiology this is suspected.
Coccidioidomycosis - Serology	COCID	SD	Blood	Yellow	5 mL	Referred.
Codeine	DRUGUR or NARCANALG					Codiene will present as an opiate in DRUGUR
Cold Agglutinin Titre	COLD	BBK	Blood	Red (Warm) EDTA (after consultation with Transfusion Medicine staff)	6 mL	Tube MUST be warmed to 37°C before collection and until delivered to Laboratory. Please notify Transfusion Medicine Staff.
Complement Measurement	CH50	SD	Blood	Yellow	5 mL	Referred. Deliver on ice ASAP. Spin, separate and freeze immediately.
Copeptin	COPEPTIN	SD	Blood	Green (Lithium Heparin)	6 mL	Referred
Copper	COPS	SD	Blood	Navy #368381	6 mL	Referred Deliver to Lab ASAP. Spin, separate and freeze immediately.
Copper Urine	COPU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. DIET RESTRICTION: Avoid mineral supplements for 5 days. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Copper Oxidase	CERULO	SD			<u> </u>	See Ceruloplasmin.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Coproporphyrin Qualitative, Quantitative	PORPH	SD				See Porphyrin.
Cord Blood Testing (Group and Coombs)	CBS	BBK	Cord Blood	Pink	6 mL	Label tube with patients name and unique number
Cortisol AM	CORTAM	SD	Blood	PST/Yellow	4.5 mL	Referred. Recommended time 0800 hr.
Cortisol PM	CORTPM	SD	Blood	PST/Yellow	4.5 mL	Referred. Recommended time 1600 hr
Cortisol Random	CORRANDOM	SD	Blood	PST/Yellow	4.5 mL	Referred.
Cortisol (Urinary free)	CORTU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Coxiella burnetii - Q-Fever serology	QFEVER	SD	Blood	Red or Yellow	5 mL	Referred IgG and IgM tested
Coxsackie virus - culture		MIC				See Enterovirus PCR Microbiology Requisition required with sample.
C-peptide	CPEP	SD	Blood	SST	6 mL	Referred. 10 hour fast See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Creatine Kinase ( CPK)	CPK	CHEM	Blood	PST/Yellow	4.5 mL	
Creatinine	CR	CHEM	Blood	PST/Yellow	4.5 mL	
Creatinine Urine (24 hour)	CRU24	CU	Urine	24 hour jug	12 or 24 hour specimen	See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Creatinine Urine (Random)	CRU	CU	Urine	Screw top container	Random	
Creatinine Clearance	CRCL	CU	Blood and Urine	Yellow and 24 hour jug	5 mL and 24 hour specimen	Also order CR. Specify height (cm), weight (kg). See Clinical Chemistry section for details. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Crossmatch	LAB: CRC OE: XMATCH	BBK	Blood	Pink	6 mL	
Crossmatch, Neonatal	LAB: CRC OE: XMATCH	BBK	Blood	Lavender	2 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Potential Crossmatch	BBHOLD	BBK	Blood	Pink	6 mL	Specimen will be held in Transfusion Medicine for 48hrs pending further orders. NO testing will be performed until further orders received.
Cryofibrinogen	CRYOFIB	SD	Blood	Blue and Red tubes preheated at 37°C.	Blue 3 x 4.5 mL Red 2 x 4 mL	Indicate clinical history. Done Monday - Thursday only. Keep specimen at 37°C, call Transfusion Medicine.
Cryoglobulins	CRYO	BBK	Blood	Red at 37°C	2 X 6 mL	Blood must be collected in a tube warmed to 37C.Specimens must be kept at 37°C from time of collection until delivery to lab and remain at 37C for1-2 hrs until clotted once received at the Lab. Requires 7 days for results. Positive results referred to HIC
Cryptococcus - Blood culture	CBY	MIC	Blood	Aerobic blood culture bottle	8-10 mL	Referred. Microbiology Requisition required with sample. Collection date and time required. Blood culture will also identify other pathogens and yeasts.
Cryptococcus - Other culture	CFUN	MIC	CSF, urine, etc.	Dry sterile container	1-3 mL	Referred. Microbiology Requisition required with sample.
Cryptococcus - Latex (antigen)	CRYPL	MIC	CSF, Blood	Dry sterile container; For blood Red or Yellow	1-3 mL 5 mL (blood)	Referred. Microbiology Requisition required with sample.
Cryptosporidia	OP	MIC	Stool	Parasite container (SAF fixative)	To fill line. Mix well with fixative.	Referred. Microbiology Requisition required with sample. Included in routine O&P. Special requests can be made for immunofluorescent staining. See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet.
CSF - Cerebrospinal Fluid	See individual test for mnemonic		CSF	Tube 1: Chemistry, Immunology Tube 2: Microbiology Tube 3: Haematology Tube 4: Cytology Dry sterile container: Additional tests		If for any reason the physician alters the sequence of labelling specimens, the requisition should have documentation that the protocol has been altered. <b>Must</b> be delivered to Laboratory Receiving within 20 minutes of collection.
CSF - Glucose	CSFGLUC	SC	CSF	Dry sterile container – Tube # 1		See CSF for instructions

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
CSF - LDH	CSFLDH	SC	CSF	Dry sterile container – Tube # 1		See CSF for instructions.
CSF - Oligoclonal Banding	OLIGO	SD	CSF + Blood	Sterile tube, CSF Yellow: Blood	1 mL serum 2 mL CSF	Referred See CSF for instructions.
CSF - Total Protein	CSFPR	SC	CSF	Dry sterile container – Tube # 1		See CSF for instructions
CSF - Cell Count and Differential	CSFCOUNT	SC	CSF	Dry sterile container Tube #3		See CSF for instructions
CSF - Bacterial culture	CCSF	MIC	CSF	Dry sterile container Tube # 2	1-2 mL	Referred. Microbiology Requisition required with sample. In addition fungal culture, Cryptococcal antigen or AFB/TB culture may be required.
CSF - Fungal or yeast	CFUN	MIC	CSF	Dry sterile container Tube # 2	1-2 mL	Referred. Microbiology Requisition required with sample.
CSF - Cryptococcal latex	CRYPL	MIC	CSF (can also be done on blood)	Dry sterile container Tube # 2	1-2 mL	Referred. Microbiology Requisition required with sample.
CSF - Cytology		PATH	CSF	Dry sterile container Tube #4		See CSF for instructions
CSF - Immunoglobulins, quantitative (IgG, IgM, IgA, Kappa, Lambda)	CSFIG	SD	CSF	Dry sterile container Tube #1		Referred. See Cerebrospinal fluid for instructions.
CSF - Syphilis	CSFVDRL	MIC	CSF	Dry sterile container	1-2 mL	Referred. Microbiology Requisition required with sample. Must have serum sample taken around same time.
CSF Culture - Viruses		MIC				See individual viral agents for ordering ie; Adenovirus, Herpes and Enteroviruses. Each agent must be ordered separately. Microbiology Requisition required with sample.
CSF - PCR for infectious agents		MIC				See individual viral agents for ordering ie; Adenovirus, Herpes and Enteroviruses. Each agent must be ordered separately. Microbiology Requisition required with sample.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
C-Telopeptide, Blood	TELOPTIDEC	SD	Blood	Lavender	4 mL	Referred. 8 hr fast required. MUST be morning collection. Non-fasting not acceptable. See for <u>Section 10: Collection</u> Instructions patient instruction sheet.
CV2 Autoantibody	PARANEO	SD				See Paraneoplastic Antibody Panel
Cyanide	THIOCY	SD				See Thiocyanate (THIOCY)
Cyclosporin Pre	CYCLOPRE	SD	Blood	Lavender	4 mL (Adult) 300-400 uL (Children)	Referred. Fasting preferred, 10-12 hrs after last dose, booked early so draw can be before next dose which is usually around 900 hrs See for <u>Section 10: Collection</u> <u>Instructions</u> rpatient instruction sheet.
Cyclosporin 2hr Post	CYCLOPOST	SD	Blood	Lavender	4 mL (Adult) 300-400 uL (children)	Referred. Draw 2 hrs after medication is taken
Cystinuria Monitoring (formerly called Cystine,Urine Quantitative)	CYSTQN	SDU	Urine	Screw top container Sterile	5 mL random urine	Referred. **Indicate if patient is known cystinuric.** A Metabolic Screen will be performed unless the request clearly indicates that the patient is a known cystinuric. Quantitation for known cystinuric patients will include quantitative results for Arginine, Cystine, Lysine and Ornithine.
Cytomegalovirus	CMV	SD				See CMV.
Dantrolene (Dantrium)	DANT	SD	Blood	Red	6.0 mL	Referred Spin, separate and store refrigerated. Protect from light, DO NOT FREEZE.
D Dimer Test	DDIMER	COAG	Blood	Blue	4.5 mL	Testing <b>NOT</b> performed on hemolysed. Stable at room temperature for 4hrs, 8 hrs if refrigerated
Dehydroepiandro- sterone (DHEAS)	DHEAS	SD	Blood	Yellow	5 mL	Referred. Send aliquot frozen
Delta Aminolevulinic Acid (D-ALA)	DALA	SDU	Urine	Brown 24 hour jug	24 hour specimen	Referred Protect from light in brown bottle. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
11-Deoxycortisol	11DEOXY	SD	Blood	Yellow	5 ml	Referred.
Depakene	VAL	SD				See Valproic Acid.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Dermatophytes	CFUN	MIC	Skin scrapings, nail clippings, hair (root ends)	Small petri dish or dry sterile container		Referred. Microbiology Requisition required with sample. Direct microscopic examination done if sufficient specimen.
Desipramine Imipramine (Tofranil)	IMIPR	SD	Blood	Red	6 mL	Referred. Collect within 1 hr prior to dose or >12hrs after last dose Separate and sent frozen.
Dialysis Profile	DIALYSIS	CHEM	Blood	Yellow/PST	5 mL	Includes: GLUR BUN CR LYTES CPK LFT LDH AST ALP GGT ALB PROT CA PHOS MG URIC
Diarrhea, antibiotic associated.	CDIFF	MIC	Stool	Dry sterile container	Walnut sized piece(liquid stool)	Referred. Microbiology Requisition required with sample. Looking for Clostridium difficile toxin See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Diazepam (Valium)	DIAZ	SD	Blood	Red	6 mL	Referred. Draw before next dose is administered.
Differential-manual (microscopic White Cell Count)	CBC	HAEM	Blood	Lavender	4 mL	Automated Differential included with CBC. Manual differential performed when required based on reflex rules
Digoxin	DIG	CHEM	Blood	Yellow/PST	5 mL	Collect specimen prior to next dose or at least 8 hours after last dose. Decreased sensitivity to Digoxin in hyperkalemia.
Dilantin (Phenytoin)	PHENY	CHEM	Blood	Red/PST	5 mL	Collect prior to dose.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Diphtheria culture	CTS	MIC	Usually throat	C&S swab		Referred. Microbiology Requisition required with sample. Discuss with Clinical Microbiologist prior to submission of specimens.
Direct Antiglobulin Test	DAT	BBK				See Direct Coomb's Test.
Direct Coomb's Test	DAT	BBK	Blood	Lavender	4 mL	
Disopyramide	NORP	SD	Blood	Red	6 ml	Collect prior to dose. Referred.
DNA	DNA	SD	Blood	Red	6 mL	Referred. Clinical history and diagnosis.
DNA Double Stranded (ds-DNA) Antibody	DNADS	SD	Blood	Yellow	5 mL	Referred.
Drug Screen (includes Amphetamines, Benzodiazepine, Cannabinoids / Tetrahydrocannabinol (THC), Opiates, Cocaine, Oxycodone	DRUGUR	CU	Urine	Screw top container	25 mL urine	Available only on urine. For methadone clinic drug panel order METHSCR. For a suboxone drug panel order SUBOXU
Drug Screen Referred	DRUGURREF	SDU	Urine	Screw top container	25 mL urine	Referred.
D-Xylose Tolerance	DXYLOSE	SD	Blood (fasting + 1 hr post xylose dose)	Yellow	2 ml serum from ac and from 1 hr post specimen	See D-Xylose Tolerance in Chemistry section for procedure. Contact Chemistry Department to make preparations for test Deliver to LAB ASAP. Spin, separate and freeze ASAP.
Ear fluid, sinus swabs, antral washings	CENT	MIC	Ear swab, ear fluid, antral washings, glands, etc.	C&S swab		Referred. Microbiology Requisition required with sample. See also Sinus culture.
Ear Swab - Routine bacteria	CEAR	MIC	Ear swab	C&S swab		Referred. Microbiology Requisition required with sample.
Ear Swab - Fungus	CFUN	MIC	Ear swab	C&S swab		Referred. Microbiology Requisition required with sample.
EBV IgM	EBVIM	SD	Blood	Red or Yellow EDTA (Plasma) see notes	5 mL	Referred. EDTA (plasma) acceptable only for cases where patients CBC/smear are abnormal and Mono test is negative ordered by LAB staff only.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Echinococcosis - Direct examination	ZOP	MIC	Aspirate	Dry sterile container	1-10 mL	Referred. Microbiology Requisition required with sample. Bring to lab ASAP. Consult with Microbiologist before sending.
Echinococcosis - Serology	ECHINSER	SD	Blood	Yellow	5 mL	Referred.
Echovirus - Culture		MIC				See Enterovirus PCR Microbiology Requisition required with sample.
Echovirus Serology		MIC				Not Available
Elastase 1-Fecal	ELAST1	SD	Stool	Dry sterile container	5 g	Submit 5g feces. Store and ship FROZEN in sterile plastic container to HIC.
Electrolyte Stool						Not Available
Electrolytes (Na, K, Cl)	LYTES	CHEM	Blood	PST/Yellow	4.5 mL	If Anion Gap is required, please order a CO2 also.
Electrolytes (Na, K, Cl) - Random urine	LYTESU	CU	Urine	Screw top container	Random	Values vary greatly with intake.
Electrolytes (Na, K, Cl) - 24 hour urine	LYTESU24	CU	Urine	24 hour jug	24 hour specimen	Values vary greatly with intake. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Electrophoresis	EPHORS	SD				See Protein Electrophoresis.
ENA	ENA	SD	Blood	Yellow	5 mL	Referred. (Equivocal and Positive specimens are referred out again to another site)
Endometrial swab or tissue culture	CGEN	MIC	Tissue or swab	C&S swab or dry sterile container		Referred. Microbiology Requisition required with sample.
Endomysial Antibody	MISC	SD	Blood	Yellow	5 mL	Referred. All orders to be reviewed by C.Collins and Dr.Cartier. If approved order MISC and enter testing required in comment.
Endotrachial suction (ETT) - Routine Culture	CRESP	MIC	Suctioning from ETT tube (clean area before collecting)	Dry sterile container		Referred. Microbiology Requisition required with sample.
Endotracheal suction (ETT) - Viral PCR Panel	RESPVPCR	MIC	Suctioning from ETT tube (clean area before collecting)	Dry sterile container		Referred. Microbiology Requisition required with sample. Includes: Influ A&B, ParaInflu 1, 2,3&4, Rhinovirus, Enterovirus, Coronavirus, Metapneumovirus, Bocovirus, RSV, Adenovirus, NL63/OC43/229E/HKU1, Parenchovirus and Mycoplasma pneumoniae.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Enterobiasis (pinworms)	PINWORM	MIC	Transparent ( <b>NOT</b> "vanishing" or opaque) tape applied to perianal region then placed smoothly on glass slide	- Slide with tape in envelope or slide holder - Pinworm paddle		Referred. Microbiology Requisition required with sample. Pinworm paddles are available from Microbiology on request.
Enterovirus- PCR (includes Coxsackie, Echo, Polio)	See comments	OE: MIC	Pleural/pericardial fluids, stool Throat, nasal, rectal swabs, vesicle fluid	Dry sterile container Viral transport media		Referred. Microbiology Requisition required with sample. Included in Eye (CVEYE) & Stool viral cultures. For other specimens order Enterovirus PCR (EVPCR). See <u>Section 10: Collection Instructions</u> for patient instruction sheet for stool collection.
Enterovirus PCR CSF	EVPCRCSF	OE: MIC LAB: SD	CSF	Dry sterile container		Referred. Microbiology Requisition required with sample.
Enterovirus Serology						Not Available
Epival	VAL	SD				See Valproic Acid
Eosinophils	CBC	HAEM				Included with Diff result. See CBC or Differential-manual
Eosinophils, miscellaneous	EOMISC	SD	Any source other than nasal	Dry sterile container		Enter the source in the comments
Eosinophils, nasal	NSE	HAEM	Nasal swab	C&S swab/slide		Referred.
Episiotomy Culture	CGEN	MIC	Swab of incision	C&S swab		Referred. Microbiology Requisition required with sample.
Epstein-Barr Virus (EBV infections)	EBVPAN	SD	Blood	Red or Yellow	5 mL	Referred. Includes IgM, IgG and EBNA testing.
Epstein-Barr Virus PCR	EBVPCR	OE: MIC LAB:SD	Any source other than CSF or Blood	Sterile container	1-2 mL	Referred. For Blood specimens order EBVPCRQUAN. For CSF specimens order EBVPCRCSF. Microbiology Requisition required with sample.
Epstein-Barr Virus PCR CSF	EBVPCRCSF	OE: MIC LAB:SD	CSF	Sterile container	1-2 mL	Referred Microbiology Requisition required with sample.
Epstein-Barr Virus PCR Quant	EBVPCRQUAN	SD	Blood samples ONLY	Lavender	4 mL	Referred
Erythropoietin	ERY	SD	Blood	Yellow	5 mL	Referred. Morning specimen preferred. Centrifuge and freeze serum as soon as possible. Lipemic and hemolyzed specimens are unsuitable for analysis.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Escherichia coli 0157 culture	CS	MIC	Stool	Carey Blair transport medium	Walnut sized piece	Referred. Microbiology Requisition required with sample. Included in routine stool culture. See for <u>Section 10: Collection</u> <u>Instructions</u> patient instruction sheet.
ESR	ESR	HAEM	Blood	Black Sodium Citrate	5 mL	
Estradiol, 17 Beta	EDIOL	SD	Blood	Yellow	5 mL	Referred.
Estriol						Not Available
Estrogen (Pregnancy)						Not Available
Ethosuximide (Zarontin)	ETHO	SD	Blood	Red	6 mL	Referred. Collect prior to next dose.
Ethyl Alcohol	ETOH	CHEM				See Alcohol, Ethyl.
Ethylene Glycol	ETHGLY	SD	Blood	PST	2 x 6 mL- FULL	Referred Do not use alcohol swab. Do not combine with other tests - requires a dedicated tube Do not open tube.
Eye - routine Culture	CEYE	MIC	Including aqueous humor, corneal scrapings/swab, eye lid, vitreous humor conjunctiva	C&S swab		Referred. Microbiology Requisition required with sample. For viruses see below. Note if GC is suspected.
Eye - viral Culture	CVEYE	MIC	Including aqueous humor, corneal scrapings/swab, eye lid, vitreous humor conjunctiva	Viral transport swab		Referred Microbiology Requisition required with sample. Includes PCR testing for Adeno, Entero and Herpes Viruses
Factor II	F2	SD	Blood	Blue	4.5 mL	Referred. Indicate if bleeding or thrombosis. Send frozen
Factor II Mutation	PROVAR	SD	Blood	2 Lavender	2 x 4 mL	Referred
Factor Inhibitor	FINH	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if any replacement therapy or bleeding. Call Hematology dept. 623-3255 if testing required.
Factor IX	F9	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Factor V	F5	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Factor V Leiden	FVLEIDEN	SD	Blood	Lavender	4 mL	Referred Indicate anticoagulants. Do not send if patient is on heparin. Include a completed Horizon Molecular Genetic requisition Note: Once testing has been performed on a patient it will not be performed again.
Factor VII	F7	SD	Blood	Blue	4.5 mL	Indicate if bleeding or thrombosis. Send frozen
Factor VIII	F8	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Factor VIII Related Antigen	VWF	SD				See Von Willebrand's Panel Send frozen
Factor X	F10	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Factor Xa Assay	НЕРХА	SD	Blood	Blue	4.5 mL	Referred – Brand name of Heparin must be listed. Send frozen
Factor XI	F11	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Factor XII	F12	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Factor XIII	F13	SD	Blood	Blue	4.5 mL	Referred. Send frozen Indicate if bleeding or thrombosis.
Fat, qualitative	FATSCR	SD	Stool	Screw top container	Random 5 grams	Referred See for <u>Section 10: Collection</u> Instructions patient instruction sheet.
Fatty Acids, Free	FFA	SD	Blood	Yellow	5 mL	Referred Send frozen 12 hour fast required. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Fecal Fat, 72 hour	FAT72	SD	Stool	Obtain pre-weighed containers from lab	72 hour stool	Referred. Follow special 5 day diet. See Clinical Chemistry section. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
FEP	PORPH	SD				See Porphyrin.
Ferritin	FER	CHEM	Blood	PST/Yellow	5 mL	
Fetal Fibronectin	FETFIB	CHEM	Swab	Adeza Biomedical Specimen Collection Kit		Follow directions from Adeza Biomedical Specimen Collection Kit.
Fetal Haemoglobin	FETALHGB	SD	Blood	Lavender	4 mL	Referred. Send refrigerated whole blood. State clinical diagnosis.
Fibrinogen	FIBC	COAG	Blood	Blue	4.5 mL	List thrombolytics and anticoagulants.
Fibrosis-4	FIBROSIS-4	CHEM	Blood	PST/SST Lavender	5 mL 4 mL	Calculation. Group test comprised of CBC, AST, ALT for the calculation of Fibrosis-4 for GI patients.
F.I.S.H. (Fluorescent In Situ Hybridization) for CLL	FISH	SD	Blood	Green: MUST be Sodium Heparin not Lithium Heparin	6 mL	Referred. Available Mon – Thurs only Send completed IWK general Cytogenetics requisition with specimen Requests from Oncology Doctors from Moncton will be sent to U of T.
Fifth disease (IgG) (Parvovirus) Serology	PARVOG	SD	Blood	Red or Yellow	5 mL	Referred
Fifth disease (IgM) (Parvovirus) Serology	PARVOM	SD	Blood	Red or Yellow	5 mL	Referred.
FK 506	FK506	SD	Blood	Lavender	4 mL	Referred For Paeds patient – 500 μL EDTA specimen.
Flucytosine (5FC)	FLUCY	SD	Blood	Yellow	4 mL	Referred. Notify Microbiology when planning to do this test.
Fluoride	CHOLIN	SD				Referred. See Cholinesterase Phenotyping
Folic Acid (Folate)	FOL	CHEM	Blood	PST/Yellow	4.5 mL	8 hr Fasting sample is preferred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Folic Acid, RBC	RBCFOL	SD	Blood	Lavender	4 mL	RBC Folate testing (RBCFOL) no longer available, contact laboratory if required

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Follicle Stimulating Hormone (FSH)	FSH	SD	Blood	PST/Yellow	4.5 mL	Referred
Fragile X	FX	SD	Blood	2 x Lavender (Adult) 1 x Lavender (child)	2 x 4 mL (adult) 1 x 4 mL (child)	Referred Available Mon-Thurs Include a requisition signed by a physician, indicate clinical history. Store at room temperature and ship within 3-4 days to reference laboratory
Francisella (Francisella tularaemia)	TULAR	SD	Blood	Red or Yellow	3 – 4 ml	Same as Tularemia
Free PSA	FPSA	CHEM	Blood	SST	4.5 mL	Orderable by Urologists ONLY
Free T3	TSH	CHEM				Testing not orderable Free T3 is reflexed when TSH is low and Free T4 is normal.
Free T4	TSH	CHEM				Testing not orderable. Free T4 is performed when TSH values are above or below the normal range.
Free Testosterone	TESTBIO	SD				Order TESTBIO
Frisium	CLOB	SD				See Clobazam.
Fructosamine	FRUC	SD	Blood	Yellow	5 mL	Referred.
Fungal Culture - Blood? YEAST	CBY	MIC	Blood	Aerobic and anaerobic bottles	5-10 mL per bottle	Referred. Microbiology Requisition required with sample. Collection date and time required. Bring to lab ASAP or incubate at 35°C.
Fungal Culture - Throat	TY	MIC	Throat swab	Swab		Referred. Microbiology Requisition required with sample.
Fungal Culture - Gum, mouth, tongue	GS	MIC	Gum, mouth or tongue swab	Swab		Referred. Microbiology Requisition required with sample.
Fungal Culture - Stool	CSY	MIC	Stool	Dry sterile container C&S container	Walnut size	Referred. Microbiology Requisition required with sample.
Fungal Culture - Urine	CUY	MIC	Urine	Dry sterile container	10-20 mL	Referred. Microbiology Requisition required with sample.
G6PD	G6PD	SD	Blood	Lavender	4 mL	Referred. Mon or Tues only. MUST also order CBC and Retic Count and send results with specimen. For pediatric specimens must have min 0.5 ml.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Galactomannan Antigen	GALACTO	MIC	Blood	Yellow	5 mL	Referred Microbiology Requisition required with sample.
Gamma Glutamyl Transferase	GGT	CHEM				Can only be ordered as an exception test.
Ganglioside Antibody GM1	LAB:GANGLIOSIDE OE:GANGLIOSID	SD	Blood	Red. Avoid tubes with gel separator.	6 mL	Referred. Send Frozen
Gardnerella vaginalis	VS	MIC				Referred. Microbiology Requisition required with sample. See Bacterial vaginosis.
Gastric Aspirate culture & Gram Stain	CMISC	MIC	Aspirate	Dry sterile container		Referred. Microbiology Requisition required with sample. Used to screen for Group B Strep in neonates.
Gastrin	GASTRIN	SD	Blood	Yellow	5 ml	Referred. Send Frozen 14 hour Fasting or prior to next feeding in infants See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet.
GC culture	CGC	MIC	Cervix, urethral conjunctiva, exudates, etc.	C&S swab - consider requesting CHLAMGCDNA (below) if transport time >24 hours		Referred. Microbiology Requisition required with sample. Vaginal swabs are ONLY acceptable in prepubertal females (≤ 13 years).
GC –PCR Testing	CHLAMGCC-Cervix CHLAMGCE-Eye CHLAMGCE-Eye CHLAMGCP-Penis CHLAMGCP-Penis CHLAMGCR-Rectal CHLAMGCT-Throat CHLAMGCURETH- Urethra CHLAMGCVAG- Vaginal CHLAMGCVV- Vaginal Vault CHLAMGCUR-Urine	SD SD SD SD SD SD SD SD	Swabs: Vaginal and endocervical collected directly into transport media (DO NOT pre- moisten swabs in transport media) Urine: first-void, approx30-50 mLs,	Female :swab or urine Male :urine NOTE: male collection kit no longer exists, "female" swab maybe used to collect visible discharge at the urethral opening.	30-50 mLs first void urine or swab	Referred. Microbiology Requisition required with sample. Both GC and Chlamydia testing are done on the one sample. A single swab or urine may be sent for testing. Ordered according to source. Swabs are stable at room temperature Urine: keep refrigerated, deliver within 24hrs. See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet. <b>Note</b> : Indicate <b>Source</b> on Requisition
Genetic Analysis	GENANA	SD	Blood	Lavender	3 x 4 mL	Referred to IWK. Consent form required. Indicate testing requested. Send at room temperature

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Genital swab – routine bacteria	CGEN	MIC	Swab, tissue or pus from: Bartholin, Episiotomy, endometrium, IUD, labia, lochia, penis, placenta, scrotum, seminal fluid, vulva, prepubertal vaginal, post-op vag vault, urethral	C&S swab or dry sterile for tissue		Referred. Microbiology Requisition required with sample. Includes Gram and culture for pathogenic bacteria. Note: Diagnosis especially important for culture interpretation.
Gentamicin - Trough	GENT	SD	Blood	PST/Red	4.5 mL	Referred. Trough levels for Gentamicin based on traditional dosing. Blood should be drawn 5-30 mins prior to dose.
Gentamicin - Peak Confirm with Charlene that the IV IM dose comment is correct	GENP	SD	Blood	PST/Red	4.5 mL	Referred. Peak levels for Gentamycin based on traditional dosing. Blood should be drawn 30 to 60 minutes after the end of infusion. I.V dose draw 1/2 hour after dose finished I.M dose draw 1 hour after dose finished
Gentamicin – Intensive Dose (Once Daily Dose)	GENODD	SD	Blood	PST/Red	4.5 mL	Referred. Trough levels for Gentamicin based on extended interval dose. Blood should be drawn preferably 6 hours prior to the next dose.
GGT (Gamma Glutamyl Transferase)	GGT	CHEM	Blood	PST/Yellow	4.5 mL	
Giardia - Stool	OP	MIC	Stool	Parasite container (SAF fixative)	fill to line and mix well with fixative	Referred. Microbiology Requisition required with sample. Included in the routine O&P screen. In addition direct FA may also be requested.
Giardia - Duodenal aspirate	OP	MIC	Duodenal aspirate	Dry sterile container		Referred. Microbiology Requisition required with sample.
Gliadin Antibody	lab: gliaab Oe: dgpiga	SD	Blood	Yellow	5 mL	Referred.
Globulin	EPHORS	SD				Order Protein Electrophoresis.(EPHORS)

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Glucagon	GLUCA	SD	Blood	Lavender (on ice)	7 mL	Referred This test MUST be booked. 14 hour Fasting required. Must be collected in a pre-chilled tube. Once drawn, deliver to lab on ice ASAP. Send frozen See <u>Section 10: Collection Instructions</u> patient instruction sheet.
Glucose – Random	GLUR	CHEM	Blood	PST/Yellow/GRY	4.5 mL	
Glucose – Fasting	AC	CHEM	Blood	PST/Yellow/GRY	4.5 mL	
Glucose – 1 Hr post 50 gram load	GLU50GM	CHEM	Blood	PST/Yellow/GRY	4.5 mL	Collect 1 hr after 50 gram drink, non-fasting
Glucose – 2 Hr post 75 gram load	GTT75	CHEM				Order GTT75
Glucose Tolerance Test – 75 gram	GTT75	CHEM	Blood	PST/Yellow/GRY	4.5 mL	Testing includes; AC glucose and 2 hour post glucose drink
Glucose Tolerance Test – 75 gram Prenatal	GTT75PRE	CHEM	Blood	PST/Yellow/GRY	4.5 mL	Testing includes; AC glucose, 1 hour post and 2 hour post glucose drink
Glutamic Acid Decarboxylase	GAD65	SD	Blood	Yellow	5 mL	Referred. Deliver to LAB ASAP. Spin and separate ASAP. Store and send refrigerated.
Glycosylated Hemoglobin	A1C	SC				See Hemoglobin A1C
Gonococcus - culture	CGC	MIC	Cervix, urethral conjunctiva, exudates, etc.	C&S swab - consider requesting CHLAMGCDNA (below) if transport time >24 hours		Referred. Microbiology Requisition required with sample. Vaginal swabs are ONLY acceptable in prepubertal females ( $\leq$ 13 years).

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Gonococcus - direct antigen (DNA)	CHLAMGCC-Cervix CHLAMGCE-Eye CHLAMGCEC- Endocervix CHLAMGCP-Penis CHLAMGCR-Rectal CHLAMGCT-Throat CHLAMGCURETH- Urethra CHLAMGCVAG- Vaginal CHLAMGCVV- Vaginal Vault CHLAMGCUR-Urine	SD SD SD SD SD SD SD SD	Swabs: Vaginal and endocervical collected directly into transport media (DO NOT pre- moisten swabs in transport media) Urine: first-void, approx.30-50 mLs,	Female :swab or urine Male :urine NOTE: male collection kit no longer exists, "female" swab maybe used to collect visible discharge at the urethral opening.	30-50 mLs first void urine or swab	Referred. Both GC and Chlamydia testing are done on the one sample. A single swab or urine may be sent for testing. Ordered according to Source. Swabs are stable at room temperature Urine: keep refrigerated, deliver within 24hrs. See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet. Note: Indicate <b>Source</b> on requisition
Gram Smear	GS	MIC	Various	Smear made on glass slide or C&S swab		Referred. Microbiology Requisition required with sample. Generally not required to order. Automatically done with most routine cultures.
Group B Streptococcus Screen	CGBS	MIC	Vaginal/rectal swab	C&S swab		Referred. Microbiology Requisition required with sample. Screening done in pregnancy only
Growth Hormone	GRHORM	SD	Blood	Yellow	5 mL	Referred. Fasting required and 30 minute rest period prior to collection Send frozen See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Gum swab - routinely look for yeast only	GS	MIC	Swab or scrapings	C&S swab		Referred. Microbiology Requisition required with sample. Gram smear only done.
Hand, foot and mouth disease		MIC				See Enterovirus PCR. Microbiology Requisition required with sample.
Hanta Virus Serology	HANTAS	MIC	Blood	Red or Yellow	5 mL	Referred. Microbiology Requisition required with sample. Please consult with Clinical Microbiologist.
Haptoglobin	HAPTOG	SD	Blood	Yellow	5 mL	Referred. Deliver to LAB ASAP. Specimen should be aliquotted within 2hrs of collection
HCG Beta Subunit (BHCG)	BHCG	CHEM				See Beta HCG.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
HDL Cholesterol	LIPID(fasting)	CHEM	Blood	PST/Yellow	4.5 mL	Included in LIPID fasting profile, order LIPID, and non-fasting profile order LIPIDNF. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
	LIPIDNF(nonfasting)	CHEM	Blood	PST/Yellow	4.5 mL	Included in LIPID profile, order LIPIDNF.
Heavy Metals						See individual metals.
Heinz Bodies	HEINZ	SD	Blood	Lavender	4 mL	Referred Mon- Wed only. Laboratory must be notified that testing is being ordered.
Helicobacter pylori - serology						No longer orderable, replaced by HPYLAG, stool testing.
Helicobacter pylori - antigen	HPYLAG	SD	Stool	Sterile container		Referred. Sample stable at room temperature for 7 days.
Hematocrit	CBC	HAEM	Blood	Lavender	4 ml	Request CBC.
Hemochromatosis Gene Test	HGENE	SD	Blood	Lavender	4 mL	Referred. Mon-Thurs only. Horizon Health Molecular Genetic requisition (SJRH) required with signature of referring physician
Hemoglobin	CBC	HAEM	Blood	Lavender	4 mL	Request CBC.
Hemoglobin AIC	A1C	SC	Blood	Lavender	4 mL	
Hemoglobin Electrophoresis	HGBEP	SD	Blood	Lavender	2 x 4 mL	Referred. Also includes CBC and Retic testing. Use one lavender for CBC/Retic. Refrigerate the second tube. Send Refrigerated lavender tube and CBC/Retic report and a stained slide. Store specimen in fridge until dispatch.
Hemosiderin	HEMOSIDUR	SDU	Urine	Screw top container	15 mL	Referred. Clinical history required.
Heparin Anti Xa	HEPXA	SD				See Factor Xa assay
Heparin Dependent Antibody (Serotonin Release Assay)	HIT	SD	Blood	Red- 2 x 6 mL	2 x 6 mL	Referred Test used for Heparin induced Thrombocytopenia (HIT) Deliver to LAB within 1 hour from collection time, Spin and then freeze. Send frozen. Clearly indicate serum samples.
Hepatitis A IgG Antibody	HAVG	SD	Blood	Red or Yellow	2 -3 mLs	Referred. Indicate clinical information with request

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Hepatitis A IgG/IgM - Recent Infection	HAV	SD	Blood	Red or Yellow	2 -3 mLs	Referred. Indicate clinical information with request Includes IgG and IgM.
Hepatitis B - Antibody (Surface) (Immune status)	HBAB OE:HEPBAB	SD	Blood	Red or Yellow	2 -3 mLs	Referred. Please include clinical information with request.
Hepatitis B - Antigen (Surface)	HBAG OE:HEPBAG	SD	Blood	Red or Yellow	2 -3 mLs	Referred. Please include clinical information with request.
Hepatitis B - Core total	HEPBCTOT	SD	Blood	Red or Yellow	2 -3 mLs	Referred. Special request only.
Hepatitis B - Core IgM	HEPBCTOT	SD				Order HEPBCTOT
Hepatitis B - Be Antigen (special request)	HEPBE	SD	Blood	Red or Yellow	5 mL	Referred. Special request only. Follows initial testing.
Hepatitis C - Antibody	HEPCV	SD	Blood	Red or Yellow	5 mL	Referred. Please include clinical information with request (i.e. risk factors)
Hepatitis C PCR (RNA)	HEPCVPCR	SD	Blood	Red or Yellow	5 mL	Referred. Generally only done following a positive HCV antibody test
Hepatitis C Viral Load	HEPCVLOAD	SD	Blood	Lavender x2	2 x 4 mL	Referred Call Laboratory for special instructions if testing required
Hepatitis C Genotyping	HEPCVGENO	SD	Blood	Red or Yellow	5 mL	Referred
Hepatitis D (Delta) (special request only)	HEPDVAB	SD	Blood	Red or Yellow	6 mL	Referred. Special request only. Follows initial testing.
Hepatitis E Antibody (special request only)	HEPEV	SD	Blood	Red or Yellow	5 mL	Referred
Herpes/Varicella PCR	HSVVZVPCR	OE: MIC LAB: SD	Any specimen except CSF	Dry sterile container		Referred. Microbiology Requisition required with sample. Includes both Herpes/Varicella PCR testing For CSF order HSVVZVPCRCSF
Herpes/Varicella PCR CSF	HSVVZVPCRCSF	OE: MIC LAB: SD	CSF	Dry sterile container		Referred. Microbiology Requisition required with sample. Includes both Herpes/Varicella PCR testing

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Herpes group PCR	HERPESPCR	OE: MIC LAB: SD	Usually CSF	Sterile	1-2 mL	Referred. Microbiology Requisition required with sample. Includes both Herpes/Varicella PCR testing
Herpes simplex virus (HSV) - Serology	HERPES	SD	Blood	Red or Yellow	5 mL	Referred. Only IgG testing performed. Includes differentiation between HSV-1 and HSV-2.
Herpes virus culture	HERPESPCR					See HERPESPCR
Hexosaminidase	ARYL	SD				See Arylsulfatase
HGH	GRHORM	SD				See Growth Hormone
Histamine, Plasma	HISTAM	SD	Blood	Pre-chilled Lavender on ice	4 mL	Referred Collect in pre-chilled EDTA tube. Deliver to lab on ice ASAP. Spin, separate into 2 aliquots and freeze. Send frozen. Avoid hemolysis.
Histoplasmosis - Culture	CFUN	MIC	Blood, respiratory specimens, biopsy, etc.	Dry sterile container or aerobic blood culture bottle		Referred. Microbiology Requisition required with sample. Indicate Histoplasmosis suspected
Histoplasmosis - Serology	HISTOS	SD	Blood	Red or Yellow	5 mL	Referred.
HIV testing	HIV	SD	Blood	Red or Yellow	5 mL	Referred. If screen positive specimen is automatically referred for confirmation. Reports to submitting physician only
HIV I/2	HIV	SD	Blood	Red or Yellow	5 mL	Referred. If screen test positive specimen is automatically referred for confirmation.
HIV PCR	HIVPCR	SD	Blood	Lavender x 2	2 x 4 mL	Referred Send whole blood at room temp. Special request, notify Microbiology
HIV Viral Load	HIVLOAD	SD	Blood	Lavender x 3	3 x 4 mL	Referred Spin, separate into three aliquots and freeze. Send frozen. If unable to send within 72hrs reference lab must be notified.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
HLA B27	HLAB27	SD	Blood	Lavender	2 x 4 mL	Referred. Mon-Wed only. Horizon Health Molecular Genetic requisition (SJRH) required with signature of referring physician This testing is not available as a walk-in. Specimens are required to stay at room temperature and must arrive at the reference laboratory within 24 hours.
HLA B27 confirmation testing	HLAB27CONF	SD	Blood	2 x LAV	2 x 4 mL	Referred. This testing is not available as a walk-in. Can ONLY be drawn Mon – Thurs. Only ordered at the request of the reference lab after HLAB27 test has been performed and found to be inconclusive. Specimens are required to stay at room temperature and must arrive at the reference laboratory within 48 hours. Completed Nova Scotia Health Authority Histocompatibility (HLA) Laboratory requisition must accompany the sample.(included with order for testing from reference laboratory)
HLA Tissue Typing Referred. (Shipped directly to Halifax)	HLADR		Blood	2 x ACD SOL B 3 x lavender	2 x 6 mL 3 x 4 mL	Referred. Mon- Wed only. This testing must be booked. Test request for tissue typing requisition from Nova Scotia Health authority must be completed.
Homocysteine	HOMOCY	SD	Blood	Lavender on ice	4 mL	Referred. Fasting blood specimen. Deliver to Lab on ice immediately after collection. Spin, separate and freeze within one hour of collection. Send frozen. 8 -12 Hour fasting is required. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Homovanillic Acid	HVA	SDU	Urine	24 hour jug with preservative	24 hour specimen	Referred Collect over 15 mL 6N HCl. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Homovanilic Acid, Random Urine	HVAURANDOM	SDU	Urine	Screw top container	10 mL	Referred. Laboratory must adjust pH to below 3.
Hookworm disease	OP	MIC				See ova and parasites. Microbiology Requisition required with sample.
Hu Antibody	PARANEO	SD				See Paraneoplastic Antibody Panel
Human Chorionic Gonadotropin (HCG)	BHCG	CHEM				See Beta HCG.
Human T-Cell Lymphotropic Viruses (HTLV I/II)	HTLV	SD	Blood	Red or Yellow	5 mL	Referred
HVA Random Urine	HVAURANDOM	SDU				See Homovanilic Acid, Random Urine
Hydroxyproline						Test not available
Hypersensitivity Pneumonitis panel	ASPAB	SD				See Aspergillus Precipitans
IFA	IFA	SD	Blood	Red	6 mL	Referred Send frozen Includes Anti-Smooth Muscle Ab, Anti- Mitochondrial Ab, Anti Parietal Cell Ab, Anti Reticulin Ab.
IGE	IGE	SD	Blood	Yellow	5 mL	Referred.
IgG (subclasses of)	IGGSUB	SD	Blood	Yellow	5 mL	Referred
Imipramine (Tofranil)	IMIPR	SD	Blood	Red	6 mL	Referred Send frozen. Collect prior to administration of next dose.
Immunoelectro- phoresis, urine	IMMGLUR	SDU	Urine	24 hour jug	24 hour specimen	Referred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Immunofixation	IFE	SD	Blood	Yellow	5 mL	Referred. For the detection of monoclonal peaks
Immunoglobulin D	IGDREF	SD	Blood	Red	6 mL	Referred. Spin, separate and freeze. Send frozen.
Immunoglobulins, quantitative (IgG, IgM, IgA)	IGS	SD	Blood	Yellow	5 mL	Referred. No fasting required.
Immunoglobulins, quantitative (IgG, IgM, IgA, Kappa, Lambda)	IGUQUANT	SDU	Urine	Screw top container or 24 hour jug	15 mL or 24 hour specimen	Referred. 24 hr specimen preferred. No fasting required. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Immunophenotyping - Immunodeficiency (T cell subsets)	FICP	SD	Blood	Lavender	4 mL	Referred .Mon-Thurs. ONLY. Send at room temp. Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, copy of CBC report and unstained peripheral smear.
Immunophenotyping - Blood (Leukemia or Lymphoma)	FPBLLP	SD	Blood	Lavender Green(Sodium Heparin)	4 mL 6 mL	Referred. Mon-Thurs. ONLY. Order CBC also. Send refrigerated Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, a copy of CBC report and an unstained peripheral smear.
Immunophenotyping – Body Fluids (including CSF)	FBFLLP	SD	Body Fluids (including CSF)	Dry sterile container (BF & CSF) and Lavender (BF only)	4 mL	Referred. Mon-Thurs. ONLY. Send refrigerated (note collection time on container). Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, a copy of BF/CSF count and unstained cytospins.
Immunophenotyping - Bone Marrow (Leukemia or Lymphoma)	FBMLLP	SD	Bone Marrow plus blood	Bone Marrow <b>plus</b> Lavender	4 mL	Referred. Mon-Thurs. ONLY. Whole blood (lavender) must be obtained early A.M. Order CBC also. Send refrigerated. Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, a copy of CBC and an unstained peripheral smear.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Immunophenotyping – Lymph Nodes	FLNLLP	SD	Lymph node	Saline or on gauze saturated with saline		Referred .Mon-Thurs. ONLY. Send refrigerated. Specimens received in saline or on gauze saturated in saline. Put in storage media upon arrival in lab. DO NOT SEND FIXED SAMPLES. Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample.
Immunophenotyping – Tissue	FTISLLP	SD	Tissue	Saline or on gauze saturated with saline		Referred .Mon-Thurs. ONLY. Send refrigerated. Specimens received in saline or on gauze saturated in saline. Put in storage media upon arrival in lab. DO NOT SEND FIXED SAMPLES. Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample.
Immunophenotyping - TBNK	TBNK	SD	Blood	Lavender	4 mL	Referred. Mon-Thurs. ONLY. Order CBC also. Send refrigerated Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, a copy of CBC report and an unstained peripheral smear.
Indices (Red Cell)	CBC	HAEM				Request CBC.
Infectious hepatitis					ļ	See Hepatitis A
Influenza Screen	INFLUSCR	MIC	Throat, respiratory specimen, nasopharyngeal swab	Viral transport swab or sterile container		Referred. Microbiology Requisition required with sample. Includes Influenza A&B and RSV
Influenza Surveillance	INFLUSURVEIL	MIC	Throat , respiratory specimen	Viral transport swab		Referred. Microbiology Requisition required with sample. Use for patients in Emergency and Doctor's offices for Influenza surveillance.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Insulin	INSULIN	SD	Blood	Yellow	5 mL	Referred. Send frozen Patient must be fasting. Order glucose on specimen at same time. Avoid hemolysis. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Insulin Antibodies	INSAB	SD	Blood	Yellow	5 mL	Referred.
Insulin Growth Like Factor Binding Protein 1 (IGF1)	SOMAC	SD				See Somatomedin (SOMAC)
Insulin Growth Like Factor Binding Protein 3 (IGF3)	IGF3	SD	Blood	Red	5 mL	Referred. Deliver to lab ASAP. Spin, separate and freeze immediately. Send frozen.
Iron Urine	HEMOSIDUR	SDU				See Urine Hemosiderin(HEMOSIDUR)
Iron Panel- Serum	IRON	SD	Blood	PST/Yellow	4.5 mL	8 Hour fasting specimen preferred. Panel includes serum Iron, Iron Saturation, Total Iron binding capacity and ferritin. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Isopropyl Alcohol	ISOPRO	SD	Blood	Grey-full tube required	4 mL	Referred. Do not use alcohol swab. Dedicated Tube. Do not open tube.
IUD (Intra Uterine Device) - Culture	CMISCAN	MIC	IUD	Dry sterile container Regan Lowe		Referred. Microbiology Requisition required with sample. Culture primarily for Actinomyces species
JAK2 V617F Mutation Peripheral Blood	JAK2	SD	Blood	Lavender	4 mL	Referred. Test available Monday – Wednesday
Kappa - Quantitative	KLCHAIN	SD	Blood	Yellow	5 ml	Referred. Includes Kappa and Lambda
Karyotype - Blood	CHRBLD	SD	Blood	2 x Green Must be Sodium Heparin, not Lithium Heparin	2 x 6 mL 2 mL Minimum	Referred. Available Mon – Thurs only. Send IWK General Cytogenetics Requisition completed and signed by the ordering physician with specimen. Ship samples at room temperature.
Ketone, Whole blood qualitative	BHYDROXY	CHEM				See Beta Hydroxybutyrate
Kleihauer-Betke Test	KB	BBK Not orderable in OE	Blood	Lavender	4 mL	Must be done postpartum if evaluating Rhlg dosing Can share lavender tube if CBC also requested. Orderable by LAB staff only.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Lactate Dehydrogenase Isoenzymes						Testing no longer orderable as per reference Laboratory
Lactate Dehydrogenase (LDH, LD)	LDH	CHEM	Blood	PST/Yellow	4.5 mL	
Lactic Acid/D	LACTATE-D	SD	Blood	Yellow	5 mL	Referred. Send to lab ASAP. Centrifuge immediately and send frozen.
Lactic Acid/L	LACA	SC	Blood Arterial sample	Green (Lithium or Sodium Heparin) or PICO 50	6 mL	Collect without tourniquet. Send to lab on ice ASAP.
Lactic Acid/L	LACV	SC	Blood Venous sample	Green (Lithium or Sodium Heparin) or PICO 50	6 mL	Collect without tourniquet. Send to lab on ice ASAP.
Lactose Tolerance (LTT)	LACTTOL	CHEM	Blood	GRY/PST	4.5 mL	Collect fasting, 30 mins, 60 mins, 90 mins and 120 mins specimens. Lactose drink prepared by Chemistry department in Laboratory. Not to be done on children under 16 years old.
Lambda - Quantitative	KLCHAIN	SD	Blood	Yellow	5 ml	Referred. Includes Kappa and Lambda
Lamotrigine (Lamictal)	LAMIC	SD	Blood	Yellow	5 ml	Referred. Collect before next dose.
Lanoxin	DIG	CHEM				See Digoxin.
Latex Fixation	RF	SD				See Rheumatoid Factor.
LDL Cholesterol	LIPID	CHEM				See LIPID.
Lead - Blood	LEAD	SD	Blood	Navy #368381	6 mL	Referred. Collect Mon- Wed Note: Zinc Protoporphyrin no longer included, order separately ZPP
Lead - Urine	LEADU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Legionella - Culture	CLEGION	MIC	See instructions	Dry sterile container		Testing available from the following sources: Broncho-Aveolar lavage (BAL), bronchial washings (BW), Endotracheal (ET) and sputum (SPT) Microbiology Requisition required with sample.
Legionella - Serology	LEGAB	SD	Blood	Red or Yellow	5 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Legionella - Direct Antigen	LEGAG	MIC	Urine	Dry sterile container	10-20 mL	Referred. Microbiology Requisition required with sample.
Leiden, Factor V	FVLEIDEN	SD	Blood	Lavender	4 mL	Referred. Indicate anticoagulants. Do not send if patient is on heparin. Include a completed Horizon Molecular Genetic requisition Note: Once testing has been performed on a patient it will not be performed again.
Leukocyte Alkaline Phosphate	LAP	SD	Blood	Fresh Finger Prick Slide		Referred. Fresh finger pick slides required. Notify Reference laboratory, 506-857-5305 that slides are being sent.
Levetiracetam (Keppra)	LEVET	SD	Blood	Red	6 mL	Referred
Librium	LIB	SD	Blood	Red	6 mL	Also called Chlordiazepoxide. Referred. Draw before next dose is administered.
Lidocaine (Xylocaine)	LIDO	SD	Blood	Red	6 mL	Referred Slight hemolysis will interfere. Store and ship frozen. Collect 30 minutes after the drug is administered.
Light Chain Typing - Urine	IGUQUANT	SDU	Urine	Screw top container or 24 hour jug	15 mL or 24 hour specimen	Referred. No fasting required. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Light Chain Typing - serum	KLCHAIN	SD	Blood	Yellow	5 mL	Referred.
Lipase	LIP	CHEM	Blood	PST/Yellow	4.5 mL	
Lipid Panel (includes CHOL, TRIG, HDL, LDL, CHOLRATIO, NONHDL)	LIPID	CHEM	Blood	PST/Yellow	4.5 mL	12-14 hour fast See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Lipid Non fasting Panel (includes CHOL, HDL, CHOLRATIO, NONHDL	LIPIDNF	CHEM	Blood	PST/Yellow	4.5 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Listeria - Culture	See comments	MIC	- Blood - swabs from genital area, respiratory, etc.	- blood culture bottles - C&S swab		Referred. Microbiology Requisition required with sample. Order appropriate routine culture for the type of specimen. Put in comments that Listeria is suspected.
Lithium	LITH	SC	Blood	Yellow	5 mL	Collect prior to dose.
Liver/Kidney Microsomes Antibody	LKMAB	SD	Blood	Yellow	5 mL	Referred
Long Chain Fatty Acids	FATACLC	SD	Blood	Yellow	5 mL	Referred. Fasting required. Send to lab ASAP. Send frozen See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Lorazepam (Ativan)	ATIVAN	SD				Order ATIVAN
Lupus Anticoagulant	LUPUSAB	SD	Blood	2 x Blue	2 x 4.5 mL	Referred. Test should not be performed if patient receiving heparin or oral anticoagulant. Spin and separate twice, freeze. Send frozen.
Luteinizing Hormone (LH)	LH	SD	Blood	PST/Yellow	4.5 mL	Referred.
Lyme disease (Borrelia burgdorferi)	LYME	SD	Blood	Red or Yellow	5 mL	Referred
Lysozyme (Muramidase)	LYSO	SD	Blood	Yellow	5 mL	Referred
Lysozyme (Muramidase)	LYSOU24	SDU	Urine	24 hour jug	24 hour urine	Referred See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
MAC Culture						See Mycobacterial infections
MAG Antibody	MAGANTI	SD	Blood	Yellow	5 mL	Referred
Magnesium	MG	CHEM	Blood	PST/Yellow	4.5 mL	
Magnesium	MGU24	SDU	Urine	24 hour jug with preservative	24 hour urine	Referred. Add 20 ml of 6N HCl to jug See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Malarial Parasites	MAL	HAEM	Blood	Lavender	4 mL	Include travel history. Deliver to Haematology Laboratory Immediately after collection.
Manganese, Plasma	MN	SD	Blood	Navy #368381	6 mL	Referred Collect and deliver to lab ASAP. Spin, separate and freeze within 30 min. Send frozen.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Manganese, Urine	MANGU24	SDU	Urine	24 hour container, no preservative		Referred. DIET RESTRICTION: Avoid mineral supplements for 5 days. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
MaTa Autoantibodies	MATA	SD	Blood	Red	6 mL	Referred
Maternal Serum Screening ( 1st Trimester)	FTS	SD	Blood	Yellow	5 ml	Referred. Maternal screening data history sheet must be completed and sent with specimen. 9 -13 wks and 6 days gestation
Maternal Serum Screening ( 2nd Trimester)	MST	SD	Blood	Yellow	5 ml	Referred. Maternal screening data history sheet must be completed and sent with specimen. 15-20 wks and 6 days gestation.
Measles, German						See Rubella.
Measles, Red - Immune Status IgG	MEASLESG	SD	Blood	Red or Yellow	5 mL	Referred.
Measles, Red - Recent Infection IgM	MEASLESM	SD	Blood	Red or Yellow	5 mL	Referred.
Measles PCR	MEASLESPCR	OE: MIC LAB: SD	Nasopharyngeal swab Throat, urine	Dry sterile container Viral transport media		Referred. Microbiology Requisition required with sample.
Meningoencephalitis - viral	ARBO	SD				See Arbovirus
Mercury	MERCB	SD	Blood	Navy 3368381	6 mL	Referred Do not freeze.
Mercury, 24hr urine	MERCU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. DIET RESTRICTION: Avoid seafood consumption for five days prior to collection. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Mercury, random urine	MERCU24	SDU	Urine	Sterile container	10 mL	Referred. DIET RESTRICTION: Avoid seafood consumption for five days prior to collection. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Metabolic Screen (Amino Acid Screen)	AMINOMET	SDU	Urine	Screw top container	Random specimen	Referred Include patient's age and clinical diagnosis. Available only on urine. If metabolic screen urine is positive then amino acid quantitation will automatically be done. Send 10 mL aliquot frozen.
Metanephrines Plasma	METANEPHPL	SD	Blood	Lavender	2 x 4 mL	Referred. Fasting sample. Patient must abstain from smoking tobacco for at least 4 hours prior to collection. The patient should be at rest in a supine position (lying down) during collection to minimize false positive results. Store and send frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Metanephrines	METU24	SDU	Urine	24 hour jug with preservative	24 hour specimen	Referred Collect over 20mL 6N HC1. Restrict caffeine, nicotine and alcohol 24 hours prior to collection. Restrict all meds 36 h prior to collection, if possible See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Methadone Metabolite	METHSCR	CU	Urine	Random	25 mL	Panel for Methadone Clinic; includes: amphetamines, benzodiazepines, cocaine, opiates, oxycodone and methadone.
	BOCO	CU	Urine	Random	25 mL	Panel for Methadone Clinic; includes: benzodiazepines, cocaine, opiates, oxycodone and methadone.
	BOO	CU	Urine	Random	25 mL	Panel for Methadone Clinic; includes: benzodiazepines, opiates, oxycodone and methadone.
Methadone Serum Screen Referred	LAB: METHSERSCRREF OE: METHSERSC	SD	Blood	Yellow Lavender accepted as well	5 mL	Referred. Includes; PRE Methadone , 2 hour POST Methadone and 4 hour POST Methadone
Methanol	METHANOL	SD	Blood	PST/SST and PST	6 ml	Referred both PST/SST and PST tubes required. <b>Do not use alcohol swab</b> . Do not combine with other tests - requires dedicated tube.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Methemoglobin	METHGB	SC	Blood	Green (NaHep) Or Heparinized Capillary	6 mL	Send on ice ASAP. Specimen must be sent to the Lab on ice in a horizontal position and tested within 4 hours of collection.
Methotrexate	MET	SD	Blood	Red	6 mL	Referred. Wrap tube to protect from light.
Methylenetetrahydro- folate Reductase	MTHFR	SD	Blood	Lavender	4 mL	Referred Mon – Thurs only, excluding holidays
Methylmalonic Acid	METHAC	SD	Blood	Lavender	4 x 4 mL	Referred Spin, separate and freeze. Send frozen. Patient must be fasting. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Microalbumin	ALBCR	CU	Urine			See Albumin-Creatinine Ratio
Microarray	MICROARRAY	SD	Blood	Lavender Green (Na Heparin)	4 mL 7 mL 1.0mL EDTA minimum for newborns	Referred Collect Mon-Wed. MUST send a completed requisition with specimen; Sick Kids Array-Based Comparative Genomic Hybridization TEST requisition when referring to Sick Kids in Toronto or an IWK Molecular Diagnostics Laboratory requisition when referring to IWK, Halifax
Microsomal Antibody	ATA	SD				Referred. See Anti Thyroid Antibody.
Miscellaneous Test	MISC MISCOTHER	SD	Variable	Variable	Variable	Referred. For laboratory use only; not available in OE module. Call lab at 623-3240 for specific testing information and ordering.
Mixing Studies (incl. PT/PTT)	MIXS	SD				See PT and/or PTT Inhibitor
Mogadon	NITRAZ	SD				See Nitrazepam.
Monilla						See Yeast.
Mono Test	MONO	HAEM	Blood	Yellow or Lavender	4 mL	
MRSA Screen - culture (Methicillin Resistant Staphylococci)	MRSA	MIC	Perineum, rectal, wounds, etc.	Throat /MRSA swab (liquid transport medium)		Preliminary screening done in-house, suspect samples sent to reference laboratory for confirmation. If specimen not included in the look-up order routine culture and note MRSA suspected Microbiology Requisition required with sample.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Mucopolysaccharides Screen	MPSCR	SDU	Urine	Dry sterile container	Random urine	Referred Avoid first morning collection, store and send frozen.
Mumps PCR	MUMPSPCR	OE: MIC LAB: SD	CSF, Urine, Throat swab	Dry sterile container or viral transport swab		Referred. Microbiology Requisition required with sample.
Mumps (Serology) - Immune Status	MUMPSG	SD	Blood	Yellow	5 mL	Referred.
Mumps (Serology) - Recent Infection IgM	MUMPSM	SD	Blood	Yellow	5 mL	Referred.
Muramidase	LYSO	SD				See Lysozyme.
Mycobacteria - other names include AFB, Acid Fast Bacilli, TB	TBCULT	MIC	Biopsy/tissue, CSF urine, body fluids, skin, respiratory specimens, gastric washings, blood or bone marrow	Dry sterile container. Special media required for blood or bone marrow - available from Microbiology.		Referred. Microbiology Requisition required with sample.
Mycobacterium tuberculosis – Direct amplification (PCR)	MTBDIRECT	MIC	Sputum CSF (2ml) tissue	Dry sterile container		Referred – special order only Discuss with Microbiologist or ID Physician Microbiology Requisition required with sample.
Mycoplasma - Urogenital and/or neonatal mycoplasmal infections	CUMYC	MIC	Urethral, cervix, nasopharyngeal aspirate	Viral transport swab Use calcium alginate swab		Referred. Microbiology Requisition required with sample.
Mycoplasma pneumoniae- PCR	RESPVPCR	MIC	Throat swab etc.	Viral transport swab		Referred. Microbiology Requisition required with sample. Includes: Influ A&B, ParaInflu 1, 2,3&4, Rhinovirus, Enterovirus, Coronavirus, Metapneumovirus, Bocovirus, RSV, Adenovirus, NL63/OC43/229E/HKU1, Parenchovirus and Mycoplasma pneumoniae.
Myoglobin, Plasma	MYOGLOB	SD	Blood	Green	6 mL	Referred.
Myoglobin	MYOGL	SDU	Urine	Screw top container	Random	Referred. Random sample. pH must be between 7- 7.5. Adjust with appropriate preservative.
Mysoline	PRIMID	SD				See Primidone
N Acetyl Procainamide	PROCAIN	SD				See Pronestyl

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Tysabri (Natalizumab) Antibodies	TYSABRI	SD	Blood	Red	5 mL	Referred Spin, separate and freeze. Send frozen.
N-Telopeptide, Urine	TELOPTIDEC	SD NOT IN OE				Replaced by C-Telopeptide, Order TELOPTIDEC.
Narcotic Analgesics	NARCANALG	SDU	Urine	Sterile Container	Random 10 mL	Includes: Codiene, Hydrocodone, Hydromorphone, Meperid Pentazocine and Propoxyphene
Needlestick-Source Person	NEEDLESC	SD	Blood	Yellow	5 ml	Tests included-Hepatitis C virus antibody, HIV, Hepatitis B surface antigen
Needlestick-Exposed Person	NEEDLEEXP	SD	Blood	Yellow	5 ml	Tests included-Hepatitis C virus antibody, HIV, Hepatitis B surface antigen, Hepatitis B surface AB immune, Hepatitis B core total, ALT/SGPT
Needlestick-PEP (Post Exposure Prophylaxis)	NEEDLEPEP	SD	Blood	Yellow Lavender	10 ml 4 ml	Tests included-Hepatitis C virus antibody, HIV, Hepatitis B surface antigen, Hepatitis B surface AB immune, Hepatitis B core total, ALT/SGPT, Bilirubin (total & direct), Alkaline phosphatase, electrolytes, creatinine, urea, CBC/Diff
Neisseria gonorrheae DNA testing	CHLAMGCC-Cervix CHLAMGCE-Eye CHLAMGCEC- Endocervix CHLAMGCP-Penis CHLAMGCR-Rectal CHLAMGCT-Throat CHLAMGCURETH- Urethra CHLAMGCVAG- Vaginal CHLAMGCVV- Vaginal Vault CHLAMGCUR-Urine)	SD SD SD SD SD SD SD SD	Swabs: Vaginal and endocervical collected directly into transport media (DO NOT pre- moisten swabs in transport media) Urine: first-void, approx.30-50 mLs,	Female :swab or urine Male :urine NOTE: male collection kit no longer exists, "female" swab maybe used to collect visible discharge at the urethral opening.	30-50 mLs first void urine or swab	Referred. Microbiology Requisition required with sample. Both GC and Chlamydia testing are done on one sample. A single swab or urine may be sent for testing. Ordered according to Source. Swabs are stable at room temperature Urine: keep refrigerated, deliver within 24hrs. See <u>Section 10: Collection</u> <u>Instructions</u> for patient instruction sheet. <b>Note</b> : Indicated <b>Source</b> on Requisition
Newborn Screening Program	NEWBORNSCR	SD	Blood	Screening card		Referred. Ship to IWK. Blotter card must dry minimum of 3 hrs before shipping. Order for initial screening and any repeat testing required by reference lab.
Nickel	NIC	SD	Blood	Navy #368381	6 mL	Referred. Deliver to LAB ASAP. Spin, separate and freeze immediately. Send frozen.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Nicotine	NICOTINE	SD	Urine	Sterile Container	Random 10 mL	Referred Assay includes metabolite cotinine
Nitrazepam (Mogadon)	NITRAZ	SD	Blood	Red	6 mL	Referred. Draw before next dose is administered.
NMO-lgG	NMO	SD	Blood	Yellow	4 mL	Referred Can also be performed on 3.0 mL of CSF.
Nocardia	CFUN	MIC	Sputum, pleural fluid, purulent material from sinuses or abscesses, biopsies, urine	Dry sterile container		Referred. Microbiology Requisition required with sample. Indicate on the requisition that this organism is suspected - a special set-up is required in the laboratory.
Norpace (Disopyramide)	NORP	SD	Blood	Green (Lithium heparin)	6 mL	Referred. Collect prior to dose.
Norovirus Norwalk-agent, Norwalk-like viruses	NORPCR	MIC	Stool	Dry sterile container	Walnut size	Referred Microbiology Requisition required with sample. Included in Viral Gastroenteritis PCR testing.
Nose Culture	CN	MIC	Nose swab	C&S swab		Referred. Microbiology Requisition required with sample. Examined for carriage of Staphylococcus aureus only.
Occult Blood	OCCBL	OB	Stool	Stool OB collection card	Random 5 gm	Drug/Diet restrictions (see Clinical Chemistry) See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Oligoclonal Banding	OLIGO	SD	Blood CSF	SST Dry sterile container	6 mL 2 mL	Referred Deliver to LAB ASAP, specimen must be frozen immediately and sent frozen.
Oligosaccharides	OLIGOSAC	SDU	Urine	Screw top container	20 ml	Referred Avoid first morning collection.
Opiates	OPIUR	CU	Urine	Screw top container	25mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen.(DRUGUR)
Organic Acids	ORGU	SDU	Urine	Screw top container	Random urine	Referred First morning sample Provide clinical history.
Osmolality(Serum)	OSMS	SC	Blood	Yellow	5 mL	
Osmolality(Urine)	OSMU	SC	Urine	Screw top container	Random 3 mL	
Osmolality (Urine 24hr)	OSMU24	SC	Urine	24 hour jug	24 hour specimen	No preservative required

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Osmolality(Stool)	OSMOLS	SD	Stool	Dry sterile container or 24 hour collection	5 mL	Referred. Must be naturally fluid stool.
Osmotic Fragility (RBC Osmotic Fragility)						Testing no longer available
Osteocalcin	OSTC	SD	Blood	Yellow	5 mL	Referred. Deliver to LAB ASAP. Spin, separate and freeze immediately. Send frozen.
Ova and Parasites	OP	MIC	Stool	Parasite container (SAF fixative)	To fill line and mix well with fixative.	Referred. Microbiology Requisition required with sample. 2 to 3 samples collected on separate days is recommended
Oxalate	OXU24	SDU	Urine	24 hour jug with preservative	24 hour specimen	Referred Collect over 20 mL of 6N HC1. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Oxycodone	OXYUR	CU	Urine	Screw top container	25mls	To be used for individual urine drug testing. For a complete screening, order Drug Screen.(DRUGUR)
PAI-1,4G5G	LAB: PAI-1,4G5G OE: PLASM	SD				See Plasminogen Activator Inhibitor- 1,4G5G Mutation
Pancreatic Polypeptide Level	PANPOLY	SD	Blood	Lavender	2 x 4 ml	Referred. Fasting. Collect on ice and deliver to Lab ASAP. Spin, separate and freeze immediately. Send frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Parainfluenza virus - PCR Panel	RESPVPCR		Respiratory specimens	Dry sterile container or viral transport swab		Referred. Includes: Influ A&B, ParaInflu 1, 2,3&4, Rhinovirus, Enterovirus, Coronavirus, Metapneumovirus, Bocovirus, RSV, Adenovirus, NL63/OC43/229E/HKU1, Parenchovirus and Mycoplasma pneumoniae.
Paraneoplastic Antibody Panel	PARANEO		Blood	Yellow	5 mL	Referred. Includes: ANNA-1(Hu)+ ANNA-2(Ri)+PCA (Yo)
Parathyroid Hormone (PTH)	PTH	SD	Blood	Lavender	4 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Paroxysmal Nocturnal Hemoglobinuria	PNH	SD	Blood	Lavender	4 mL	Referred .Mon-Thurs. ONLY. Testing MUST be booked. The Reference laboratory MUST be notified when testing is being shipped, (506)860-2163. Send completed Flow Cytometry requisition (The Moncton Hospital) with sample along with a copy of CBC. Include an unstained smear with sample for testing.
Parvovirus - Immune Status	PARVOG	SD	Blood	Red or Yellow	3 – 4 mL	Referred.
Parvovirus - Recent infection	PARVOM	SD	Blood	Red or Yellow	3 – 4 mL	Referred.
PCP (Phencyclidine)	PCPREF	SDU	Urine	Dry sterile container	Random 10 mL	Referred
Pediculosis (lice)	BUGID	MIC	Adult louse, nymphs or eggs "nits", hair	Dry sterile container		Referred. Microbiology Requisition required with sample. For Perdiculus humanus, check seams of clothing. Include completed TMH Bug Identification Requisition
Penis/Prostatic Secretions (Routine C&S)	CGEN	MIC	Penis swab or secretions	C&S Swab or dry sterile container		Referred. Microbiology Requisition required with sample.
Pentobarbital - Routine	PENTO	SD	Blood	Red	6 mL	Referred.
Pericardial Fluid	See individual tests for mnemonic listed below		Fluid	<ol> <li>Green (Lithium Heparin)</li> <li>Lavender</li> <li>Dry sterile container</li> <li>Bottle with Cytology fixative</li> </ol>	7 mL 4 mL 5 – 10 ml 20 mL	Chemistry Haematology cell count. Gram stain, acid fast bacilli stain, culture Cytology examination Deliver directly to Laboratory Central Receiving section.
Pericardial Fluid – Albumin	BFALB	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - Amylase						Testing not available
Pericardial Fluid - Bacterial culture	CBF	MIC	Pericardial fluid	Dry sterile container or blood culture bottles	2-10 mL	Microbiology Requisition required with sample.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Pericardial Fluid - Cell Count & Differential	PERICCOUNT	SC	Pericardial fluid	Lavender	4 ml	
Pericardial Fluid - Cholesterol	PERICCHOL	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - Glucose	LAB: PERICGLU OE: PERICGLUC	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - LDH	PERICLDH	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - Total Protein	PERICPROT	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - Triglycerides	PERICTRIG	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Pericardial Fluid - Uric Acid	PERICURIC	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	See Pericardial fluid for instructions.
Periodic Acid-Schiff (P.A.S.)						Done on Pathologist's request.
Peritoneal Fluid	See individual tests for mnemonic listed below		Fluid	<ol> <li>Green (Lithium Heparin)</li> <li>Lavender vacutainer</li> <li>Dry sterile container</li> <li>Bottle with Cytology fixative</li> </ol>	6 mL 4 mL 5 - 10 mL 20 mL	Chemistry Haematology cell count. Gram stain, acid fast bacilli stain, culture Cytology examination Deliver directly to Laboratory Central Receiving section.
Peritoneal Fluid – Albumin	BFALB	SC	Pericardial fluid	Green (Lithium Heparin)	6 mL	
Peritoneal Fluid - Amylase						Testing not available
Peritoneal Fluid - Bacterial culture	CMISC	MIC	Peritoneal fluid	Dry sterile container or blood culture bottles	2-10 mL	Peritoneal fluids should be ordered as CMISC all other sterile body fluids should be ordered as CBF. Microbiology Requisition required with sample.
Peritoneal Fluid - Cell Count & Differential	PERITCOUNT	SC	Peritoneal fluid	Lavender	4 ml	
Peritoneal Fluid - Cholesterol	PERITCHOL	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	
Peritoneal Fluid - Glucose	PERITGLU	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	
Peritoneal Fluid - LDH	PERITLDH	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Peritoneal Fluid - Total Protein	PERITPROT	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	
Peritoneal Fluid - Triglycerides	PERITTRIG	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	
Peritoneal Fluid - Uric Acid	PERITURIC	SC	Peritoneal fluid	Green (Lithium Heparin)	6 mL	
Pertussis (Bordetella pertussis)	BORDPCR	MIC	Nasopharyngeal swab	UTM media-Viral Transport medium(pink liquid)		Referred. Microbiology Requisition required with sample. Testing done by PCR
Pertussis (Bordetella pertussis) - Serology	PERTAB	SD	Blood	Red or Yellow	5 mL	Referred.
pH, Stool	PHST	SD	Stool	Dry sterile container	Random 5 grams	Referred.
Phencyclidine (PCP)	PCPUR	SD				See PCP (Phencyclidine)
Phenobarbital	PHB	SD	Blood	PST/Yellow	4.5 mL	Referred
Phenylalanine	PKUQNT	SD	Blood	Green (Sodium Heparin)	6 mL	Referred 1.0 mL adequate for Paeds patient. Send frozen.
Phenytoin (Dilantin)	PHENY	CHEM	Blood	PST/Yellow	4.5 mL	Collect prior to dose.
Phosphorus - 24 hour urine	PHOSU24	SDU	Urine	24 hour jug with preservative	24 hour urine	Referred. 20 ml of 6N HCl added to jug. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Phosphorus - Phosphate	PHOS	CHEM	Blood	PST/Yellow	4.5 mL	
Phytanic Acid	PHTA	SD	Blood	Red	6mL	Referred. Send frozen
Pinworms	PINWORM	MIC	Impression smear of skin around anus taken early morning	Clear scotch tape on paddle		Referred. Microbiology Requisition required with sample. Paddle available from Laboratory Dispatch.
Placenta (routine C&S)	CGEN	MIC	Tissue or swab	Dry sterile container or C&S swab		Referred. Microbiology Requisition required with sample.
Plasma Haemoglobin	PLHGB	SD	Blood	Green (Sodium Heparin)	6 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Plasma Metanephrines	METANEPHPL	SD	Blood	2 x Lavender	2 x 4 mL	Referred. Fasting sample. Patient must abstain from smoking tobacco for at least 4 hours prior to collection. The patient should be at rest in a supine position (lying down) during collection to minimize false positive results Store and send frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Plasminogen Activator Inhibitor- 1,4G5G Mutation (PAI-1,4G5G)	LAB:PAI-1,4G5G OE: PLASM	SD	Blood	1 x Lavender	4 mL	Referred. Collect before 1300 hrs Monday or Tuesday only to meet shipping schedules.
Platelet Aggregation						Testing available at the Moncton Hospital only. Must call and book an appointment with the Hematology dept. 506-857-5305
Platelet Count	CBC	HAEM				Request CBC.
Pleural Fluid	See individual test for mnemonic listed below		Fluid	<ol> <li>Green (Lithium Heparin)</li> <li>Lavender</li> <li>Dry sterile container</li> <li>Bottle with Cytology fixative</li> </ol>	6 mL 4 mL 5 – 10 mL 20 mL	Chemistry. Haematology cell count. Gram stain, acid fast bacilli stain, culture Cytology examination Deliver directly to Laboratory Central Receiving section.
Pleural Fluid - Albumin	BFALB	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pleural Fluid - Amylase						Test not available
Pleural Fluid - Bacterial culture	CMISC	MIC	Pleural fluid	Dry sterile container or blood culture bottles	2 to 10 mL	Pleural fluids should be ordered as CMISC all other sterile body fluids should be ordered as CBF. Microbiology Requisition required with sample.
Pleural Fluid - Culture Mycobacteria	TBCULT	MIC	Pleural Fluid	Dry Sterile container	5 to 10 mL	Microbiology Requisition required with sample.
Pleural Fluid - Cell Count & Differential	PLCOUNT	SC	Pleural fluid	Lavender	4 mL	
Pleural Fluid - Cholesterol	PLCHOL	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pleural Fluid - Glucose	PLGLU	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Pleural Fluid - LDH	PLLDH	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pleural fluid - pH	PLPH	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	Collect anaerobically and transport to LAB ASAP on ice.
Pleural Fluid - Total Protein	PLPROT	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pleural Fluid - Triglycerides	PLTRIG	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pleural Fluid - Uric Acid	PLURIC	SC	Pleural fluid	Green (Lithium Heparin)	6 mL	
Pneumococcal Antigen	PNEUMOAG	MIC	Urine	Screw top container		Referred Microbiology Requisition required with sample.
Pneumococcal Serology	PNEUMO	SD	Blood	Yellow	6 mL	Referred. Acute and convalescent sera required. Referred.
Pneumocystis carinii (PCP)	PNEUMSM	MIC	Induced sputum, bronchial washings, biopsy or autopsy material (lung or other tissue)	Dry sterile container		Referred. Notify Microbiology Lab when ordered Microbiology Requisition required with sample.
PNH	PNH	SD	Blood	Lavender	4 mL	Referred .Mon-Thurs. ONLY. Testing MUST be booked. Moncton Lab MUST be notified when testing is being shipped (506)860-2163. Send completed Flow Cytometry requisition (TMH) with sample, a copy of CBC report and an unstained peripheral smear.
Polio - culture		MIC				Referred. Microbiology Requisition required with sample. Polio is one of the Enteroviruses. Order as for Enterovirus PCR.
Porphyrins, Quantitation (FEP)	PORPH	SD	Blood	Lavender (wrapped) or Green (wrapped) Plasma gel pale green- top tube NOT acceptable	2 x 4 mL 7 mL	Referred Protect from light. Include a list of medications. Spin, separate and freeze. Protect from light by wrapping in aluminium foil, ensuring sample is labelled inside and outside of aluminium wrap. Send frozen.
Porphyrins Screen - Random Urine	PORPHY	SDU	Urine	Screw top container	Random	Protect specimen from light. Adjust pH between 7-10 with NaCO3.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Porphyrins Screen - 24 Hour Urine	PORPHU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. Protect specimen from light. Collect over 5g NaCO3. Referred to another testing site if screening positive. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Post Natal Testing						Request Group, Rh and screen on Mother and Cord blood.
Potassium - Blood	LYTES	CHEM				Request Electrolytes.(LYTES)
Potassium - 24hr urine	LYTESU24	CU				See Electrolytes (Na, K, Cl) - 24 hour urine
Potassium - Random Urine	LYTESU	CU				See Electrolytes (Na, K, Cl) - Random urine
Prealbumin	PREALB	SD	Blood	Yellow	4 ml	Referred.
Pregnanediol - Blood	PROG	SD				No longer available. Order Progesterone(PROG).
Prenatal Screen 1 (includes HIV)	PRENAT1		Blood Urine	Yellow Lavender Screw top container	2 x 5 mL 1 x 4 mL 25 mL	Includes: Syphilis Screen (RPR) Hepatitis B Screen Rubella(RUB) HIV CBC GLUR Urine Urine Urine Drug Screen
Prenatal Screen 2	PRENAT2		Blood Urine	Yellow Lavender Screw top container	2 x 5 mL 1 x 4 mL 10 mL	Includes: Syphilis Screen (RPR) Hepatitis B Screen Rubella(RUB) CBC GLUR Urine
Pre-Natal Screen 3 (28 weeks)	PRENAT3		Blood Urine	PST/Yellow Lavender Screw top container	4.5 mL 4 mL 10 mL	Includes: GLUC50GM (50 gram glucose drink given to patient and blood drawn an hour later) CBC Urine

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Pre-Natal Testing (Blood Bank)	PTS	BBK	Blood	Pink	6 mL	
Pregnancy Test – Urine	PREG	UA	Urine	Screw Top Container	10 mL	Fresh specimen
Primidone (Mysoline)	PRIMID	SD	Blood	PST/Yellow	4.5 mL	Referred. Spin and separate ASAP Therapeutic monitoring -Collect prior to dose; Suspected toxicity – Collect 2-4 hours post dose.
Procainamide	PROCAIN	SD				See Pronestyl.
Progesterone	PROG	SD	Blood	Yellow	5 mL	Referred.
Proinsulin	PROINS	SD	Blood	Yellow	5 mL	Referred. Collect after 12 hour fast Deliver to LAB ASAP. Send frozen See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Prolactin	PROLACT	SD	Blood	PST/Yellow	4.5 mL	Referred.
Pronestyl (Procainamide)	PROCAIN	SD	Blood	Yellow	5mL	Referred. N-Acetyl Procainamide is measured simultaneously.
Prostatic Specific Antigen(PSA)	PSA	CHEM	Blood	Yellow	5 mL	
Prostatic Specific Antigen-Free (FPSA)	FPSA	CHEM	Blood	SST	4.5 mL	Orderable by Urologists ONLY
Protein	PROT	CHEM				See Total Protein.
Protein C	PROTC	SD	Blood	Blue	4.5 mL	Referred. Cannot perform test if patient receiving Coumarin. If delay in transit to lab, divide plasma equally into 2 plastic vials. Send Frozen.
Protein-Creatinine Ratio	PROCRE	CU	Urine	Screw top container	10 mL	Referred.
Protein Electrophoresis Blood	EPHORS	SD	Blood	Yellow	4 mL	Referred.
Protein Electrophoresis Urine	PREL24	SDU	Urine	24 hour jug	24 hour specimen	No preservative required. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Protein S	PROTS	SD	Blood	Blue	4.5 mL	Referred. Cannot perform test if patient receiving Coumarin. If delay in transit to lab, divide plasma equally into 2 plastic vials. Send frozen.
Prothrombin Mutation 20210 AG Genotype	PROVAR	SD	Blood	2 Lavender	2 x 4 mL	Referred Mon-Thurs ONLY.
Psittacosis Serology (Chlamydia psittaci)	CHLPSIT	SD	Blood	Red or Yellow	6 mL	Referred. Includes history and risk factors. Test includes IgG, IgA and IgM.
PT (Prothrombin Time)	PT	COAG	Blood	Blue	4.5 mL	List anticoagulants.
PTT (Activated Partial Thromboplastin Time)	PTT	COAG	Blood	Blue	4.5 mL	List anticoagulants. If on heparin deliver to lab immediately.
PT and/or PTT Inhibitor	MIXS	SD	Blood	Blue	2 x 4.5 mL	Referred. Spin and separate twice, freeze. Send frozen. List anticoagulants and thrombolytics. Indicate if bleeding or thrombosis.
PT Mutation	PROVAR	SD	Blood	2 Lavender	2 x 4 mL	Referred Mon-Thurs ONLY.
Purkinje Cell Antibodies (Anti Yo)	PARANEO	SD				See Paraneoplastic Antibody Panel
Pyruvate	PYRUVIC		Blood	Syringe+ Special tube containing 2.5 mL 6% Perchloric acid. Obtain tube from Central Receiving, Moncton.	7 mL	Referred. This test must be booked and the Laboratory must be notified,623-3253, to ensure the special collection tube required is obtained from Moncton.
Pyruvate Kinase	PK	SD	Blood	Lavender	7 mL	Referred. Send whole blood Mon- Wed.
Q Fever (Coxiella burnetii)	QFEVER	SD	Blood	Red or Yellow	6 mL	Referred. Includes both IgG and IgM
Quinidine	QUIN	SD	Blood	Yellow	6mL	Referred Collect prior to dose.
R.D.W. (Red Cell Distribution Width)	CBC	HAEM				Request CBC.
Rabies Serology	RABIES	SD	Blood	Yellow	5 mL	Referred
RAST Test						See Allergy Testing.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
RBC Folate	RBCFOL	SD	Blood	Lavender	4 mL	RBC Folate testing (RBCFOL) no longer available, testing ONLY orderable by Haematologists.
Red Blood Cell Count (RBC)	CBC		Blood	Lavender	4 ml	Request CBC.
Renal Profile	RENAL	CHEM	Blood	Yellow/PST	5 mL	Includes: BUN CR LYTES URIC
Renin	RENIN	SD	Blood	Pre-chilled Lavender on ice	2 x 7 mL	Referred. Collect with patient in a seated position. Recommended collection time 0700-1000 hrs. Patient to be ambulatory (seated, standing or walking) for at least 2 hours prior to collection. Avoid hemolysis. Collect in pre-chilled EDTA tubes and place immediately on ice. Spin and separate ASAP (within 1 hour of collection) and freeze. Send frozen.
Reptilase Time	REPT	SD	Blood	Blue	4.5 mL	Referred. List anticoagulants. Send frozen
Respiratory Cultures - Routine Bacterial	CRESP	MIC	Sputum, Bronchial Wash, endotracheal suctions, etc.	Dry sterile container		Referred. Microbiology Requisition required with sample. May also require Mycobacteria, Legionella, Pneumocystis, etc.
Respiratory Viral PCR panel	RESPVPCR	MIC	Sputum, Bronchial Wash, endotracheal suctions, etc.	Dry sterile container Viral transport swab		Referred. Microbiology Requisition required with sample. Note: Culture replaced by PCR testing. Includes: Influ A&B, ParaInflu 1, 2,3&4, Rhinovirus, Enterovirus, Coronavirus, Metapneumovirus, Bocovirus, RSV, Adenovirus, NL63/OC43/229E/HKU1, Parenchovirus and Mycoplasma pneumoniae.
Respiratory Syncytial Virus (RSV) - Direct Antigen	RSVAG	MIC	Nasopharyngeal aspirate	RSV transport	4-8 inches #5 French Catheter	Referred. Microbiology Requisition required with sample.
RSV - Serology						Test no longer available Dec/02
Reticulin Antibodies	IFA	SD				Included in IFA screen, Order IFA

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Reticulocyte Count	RETA	HAEM	Blood	Lavender	4 mL	Include diagnosis(includes, CBC, Ret- He,IRF (Immature Reticulocyte Fraction)
Rh Genotyping	ABORH	BBK				See ABO Grouping.
Rh Typing	ABORH	BBK				See ABO Grouping.
Rheumatoid Factor (Latex Fixation)	RF	SD	Blood	Yellow	4 mL	
Ri Antibody	PARANEO	SD	Blood	Yellow	5 mL	Referred. Includes: ANNA-1(Hu)+ ANNA-2(Ri)+PCA (Yo)
Rickettsial infections (other than Q fever)	RICK	SD	Blood	Yellow	5 mL	Referred Acute and convalescent sera required.
Ristocetin Cofactor	VWF	SD	Blood	Blue	2 x 4.5 mL	Referred. Includes VWF antigen and FVIII VWF activity. Clinical history and diagnosis required. Aliquot into 2 plastic vials and freeze. Send frozen
Ritalin (Methylphenidate)	RIT	SD	Urine	Screw top container	10 mL	Referred.
Rocholimaea	BART	SD				See Cat Scratch Disease.
Rotavirus	ROTA	MIC	Stool	Dry sterile container	Walnut sized piece	Referred. Microbiology Requisition required with sample. Do NOT order if CVS stool viral culture ordered as this is included with that order.
RPR - Rapid Plasma Reagin (Syphilis Screen)	SYPH	SD	Blood	Red or Yellow	3 – 4 mL	Referred. If reactive will automatically be sent for confirmatory testing.
RSV	RSVAG	MIC				See Respiratory syncytial virus Microbiology Requisition required with sample.
Rubella - Immune Status IgG	RUBG	SD	Blood	Red or Yellow	3 – 4 mL	Referred
Rubella - Recent Infection IgM	RUBM	SD	Blood	Yellow	3 – 4 mL	Referred.
Rubeola						See Measles.
Saccharomyces cerevisiae Antibodies	ASCAB	SD	BLOOD	Red	6ml	Referred.
Salicylates	SAL	CHEM	Blood	PST/Yellow	4.5 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Salmonella	CS	MIC	Stool	Enteric Transport Medium	Walnut sized piece	Referred. Microbiology Requisition required with sample. Included in the routine stool culture
Scabies	BUGID	MIC	Scraping of skin	Dry sterile container		Referred. Microbiology Requisition required with sample. Include completed TMH Bug Identification Requisition
Schistosoma - Direct Examination	ZOP	MIC	Urine	Dry sterile container	10 - 20 mL	Referred. Microbiology Requisition required with sample. Bring to lab ASAP.
Schistosoma - Direct Examination	OP	MIC	Stool	Parasite container (SAF fixative)	Fill line on container	Referred. Microbiology Requisition required with sample.
Schistosoma - Serology	SCHISTO	SD	Blood	Red or Yellow	6 mL	Referred.
Scrotum Swab (Routine Culture)	CGEN	MIC	Swab	C&S swab		Referred. Microbiology Requisition required with sample.
Secobarbital	SECO	SD	Blood	Red	6 mL	Referred.
Sedimentation Rate	ESR	HAEM	Blood	Black Na Citrate	5 ml	See ESR.
Selenium	SELEN	SD	Blood	Navy #368381	6 mL	Referred. Spin and separate ASAP.
Seminal Fluid (Routine Culture)	CGEN	MIC	Fluid	Dry sterile container		Referred. Microbiology Requisition required with sample.
Semen Analysis for Fertility	SEMFERT	UA	Semen	Sterile Container		Special Instructions Specimen must be received in the Laboratory within 30 minutes of collection between 0800-1200 hrs on Wednesdays See <u>Section 10: Collection Instructions</u> for sperm analysis requisition.
Semen Analysis for Post Vasectomy	SEMVAS	UA	Semen	Sterile Container		Special Instructions Specimen must be received in the Laboratory within 30 minutes of collection between 0800-1200 hrs on Wednesdays See <u>Section 10: Collection Instructions</u> for sperm analysis requisition.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Serotonin	SERO	SD	Blood	Yellow	6 mL	Referred. Deliver to Lab ASAP. Spin, separate and freeze. Send frozen. 48 hours prior to collection, patient must abstain from avocados, bananas, coffee, tomatoes, plums, eggplant, hickory nuts, walnuts, pineapples and medications such as aspirin, corticotrophins, MAO inhibitors, phenacetin, catecholamines, reserpine and nicotine.
Serotonin	SEROU24	SDU	Urine	24 hour jug with preservative		Referred. 20 mL 6N HCl preservative. See diet restrictions above. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Sex Hormone Binding Globulin	TESTBIO	SD				Order Testosterone, Bioavailable (TESTBIO)
SGOT	AST	CHEM				See Aspartate Amino Transferase (AST).
Shake Test	SHAKE	SD	Amniotic fluid	Sterile container.		Referred.
Shigella	CS	MIC	Stool	Enteric Pathogen Transport Medium	Walnut sized piece	Referred. Microbiology Requisition required with sample. Included in routine stool culture. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Shingles, Zoster						See Varicella Zoster.
Sickle Cell, screen	SICELL	SD	Blood	Lavender	4 mL	Referred.
SIMPLIRED D-dimer (Manual testing)						Discontinued. See DDIMER
Sodium	LYTES	CHEM				See Electrolytes.
Sodium - Random urine	LYTESU	CU				See Electrolytes (Na, K, Cl) - 24 hour urine
Sodium - 24 hour urine	LYTESU24	CU				See Electrolytes (Na, K, Cl) - Random urine
Soluble Transferrin Receptor	SOLTRANS	SD	Blood	Yellow	5 ml	Referred
Somatomedin-C	SOMAC	SD	Blood	Yellow	5 mL	Referred. Deliver to Lab ASAP. Spin, separate into 2 aliquots and freeze immediately. Send frozen.
Somatotropin	GRHORM	SD				See Growth Hormone.
Sputum - Routine culture	CRESP	MIC	Sputum, bronchial wash, etc.	Dry sterile container		See Respiratory cultures. Microbiology Requisition required with sample.

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TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Stone Analysis	CALCULUS	SD	Urinary Calculi	Screw top container		Referred. State origin of stone.
Stool - Routine Culture	CS	MIC	Stool or rectal swab	Enteric Transport Medium	Walnut sized piece	Referred. Microbiology Requisition required with sample. Includes culture for Salmonella, Shigella, Campylobacter, Yersinia and E. coli 0157. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Stool - Viral Culture If Norwalk suspected order EM	CVS	MIC	Stool	Dry sterile container	Walnut sized piece	Referred. Microbiology Requisition required with sample. Specimens are first screened for Rota then referred for PCR testing for Entero and Adeno Viruses See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Suboxone Drug Screen	SUBOXU	CU	Urine	Screw top container	25 mL	Includes: amphetamines, benzodiazepines, cocaine, opiates, oxycodone and suboxone. To order suboxone testing alone see buprenorphine (BUPUR)
Sucrose-Lysis Test	PNH	SD	Blood	Lavender	4 mL	Referred .Mon-Thurs. ONLY. Testing MUST be booked. The Reference laboratory MUST be notified when testing is being shipped, (506)860-2163. Send completed Flow Cytometry requisition (The Moncton Hospital) with sample along with a copy of CBC. Include an unstained smear with sample for testing.
Sulfatide Autoantibody	SULFATIDE	SD	Blood	Red	7 mL	Referred. Mon-Wed ONLY. Serum stable up to 3 days.
Sulfatides	SULFATEU24	SDU	Urine	24 hour jug	20 mL	Referred Must be refrigerated at all times.
Sweat Chloride	ST	Not orderable in OE	Sweat : 30 ul Specimen is required.	Supplied with collection kit.	30 uL	Referred Sweat tests may be booked Mon-Thurs at 1300 hrs for collection. Only one per day to be booked. This applies to Inpatients also.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Synovial Fluid	See individual test for mnemonic listed below		Fluid	<ol> <li>Green (Lithium Heparin)</li> <li>Lavender</li> <li>Lavender</li> <li>Dry sterile container</li> <li>Bottle with Cytology fixative</li> </ol>	6 mL 4 mL 4 mL 1 – 5 mL 20 mL	Chemistry Haematology cell count. Crystals Gram stain, culture Cytology examination Deliver directly to Laboratory Central Receiving section immediately after collection.
Synovial Fluid -Albumin	SYNALB	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Synovial Fluid - Amylase						Test not available
Synovial Fluid - Bacterial culture	CBF		Synovial fluid	Dry sterile container or blood culture bottles.	1 – 5 mL	
Synovial Fluid - Cell Count & Differential	SYNCOUNT	SC	Synovial Fluid	Lavender	4 ml	
Synovial Fluid - Crystals	CRYSY	SD	Synovial Fluid	Lavender	4 mL	Referred. Refrigerate sample at 4C
Synovial Fluid - Glucose	SYNGLU	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Synovial Fluid - LDH	SYNLDH	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Synovial Fluid - Total Protein	SYNPROT	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Synovial Fluid - Triglycerides	SYNTRIG	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Synovial Fluid - Uric Acid	SYNURIC	SC	Synovial fluid	Green (Lithium Heparin)	6 mL	
Syphilis - Serology screen	SYPH	SD	Blood	Red or Yellow	3 – 4 mL	Referred.
Syphilis - Direct Examination	SMEAR	MIC	Exudate from primary lesion (chancre) or secondary lesion	Dry sterile container		Referred. Microbiology Requisition required with sample. Consult with Clinical Microbiologist before collecting specimen for Darkfield examination.
Tacrolimus	FK506	SD				See FK506
Taenia (Tape Worm) - Serology	TAESER	SD	Blood	Red or Yellow	6 mL	Referred. Include clinical history, place of birth and travel history.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Taenia (Tape Worm) - Direct Examination	OP	MIC	Stool	Parasite container (SAF fixative)	Fill to line and mix well.	Referred. Microbiology Requisition required with sample. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Taenia (Tape Worm) - Direct Examination	OP	MIC	Tape worm segments	Dry sterile container		Referred. Microbiology Requisition required with sample. Identification may be made to species level if worm segments (proglottides) are sent.
TB Culture	TBCULT	MIC				See Mycobacteria. Microbiology Requisition required with sample.
Tegretol	CARBAM	SD				See Carbamazepine.
Telopeptide-C, Blood	TELOPTIDEC	SD	Blood	Red	6 mL	Referred. 8 hr fast recommended. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Testosterone	TESTO	SD	Blood	Yellow	5 mL	Referred. Recommended test for Androgen level rather than 17-Ketosteroids.
Testosterone - BIOAVAILABLE	TESTBIO	SD	Blood	Yellow	5 mL	Referred DECH. Spin, separate and freeze. Send frozen.
Tetanus antibody level	TETAB	SD	Blood	Red or Yellow	5 mL	Referred Acute and convalescent sera required 3 - 4 weeks apart.
Tetrahydrocannabinol (THC/cannabinoid)	THCUR	CU	Urine	Screw top container	25mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen.(DRUGUR)
THC (Tetrahydrocanna- binol/cannabinoid)	THCUR	CU	Urine	Screw top container	25mL	To be used for individual urine drug testing. For a complete screening, order Drug Screen.(DRUGUR)
Theophylline	THEO	SD	Blood	PST/Yellow	4.5 mL	Referred
Thiamin	VITB1	SD				See Vit B1
Thiocyanate	THIOCY	SD	Blood	Red	5 mL	Referred
Throat Swab - Beta strep	СТ	MIC	Throat swab	Throat swab (liquid transport medium)		Referred. Microbiology Requisition required with sample. Direct Antigen done automatically if patient $\leq$ 18y

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Thiopurine Methyltransferase	ТРМТ	SD	Blood	Lavender	4mL	DISPATCH: Collect 1 EDTA whole blood tube. Ship minimum 4mL EDTA whole blood at room temperature. DO NOT CENTRIFUGE. Collect Mon-Thurs ONLY. Send within 24hr of collection. DO NOT FREEZE. Send completed SJRH Molecular testing requisition along with specimen
Thiopurine Methyltransferase, RBC	TPMTPHENO	SD	Blood	Lavender	4mL	DISPATCH: Collect 1 EDTA whole blood tube. Ship minimum 4 mL EDTA whole blood, refrigerated. DO NOT CENTRIFUGE. Collect Mon-Thurs ONLY. Specimen stable 7 days from collection. Please send ASAP (on day of collection if possible). DO NOT FREEZE.
Throat Swab - All pathogens	CTS	MIC	Throat swab	C&S swab		Referred. Microbiology Requisition required with sample. Notify Microbiology if diphtheria is suspected.
Throat Swab - Yeast (thrush)	TY	MIC	Throat swab	C&S swab		Referred. Microbiology Requisition required with sample. Gram smear only – no culture
Throat Swab - Gp A direct antigen	GAS	MIC	Throat swab - only one swab required for culture and antigen	Throat swab (liquid transport medium)		Routinely done on patients < 18 years if correct swab sent. Microbiology Requisition required with sample.
Thrombin Time (T.T.)	TT		Blood	Blue	4.5 mL	List thrombolytics/anticoagulants. Spin and separate specimen twice then freeze. Send frozen.
Thrush						See Yeast.
Thyroglobulin Serum	TG	SD	Blood	Yellow	2 x 5 mL	Referred.
Thyroid Antibodies	ATA	SD				See Anti Thyroid ab.
Thyroid Receptor Antibody	THYRECEPT	SD	Blood	Red	7 mL	Referred Describe patient's thyroid status, including exophthalmos. Spin, separate and freeze. Send frozen.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Thyroid Screening (TSH)	TSH	CHEM	Blood	PST/Yellow	4.5 mL	TSH is analysed. If abnormal result, Free T4 is analysed.
Thyroid-Stimulating Immunoglobulin	TSI	Not orderable in OE	Blood	Red	4 mL	Referred. Orderable by LAB staff only. Must consult with Dr L. Cartier, Biochemist (860-2242) prior to ordering.
Thyrotropin Binding Inhibitory Immunoglobulin	THYRECEPT	SD	Blood	Red	7mL	Referred Describe patient's thyroid status, including exophthalmos. Spin, separate and freeze. Send frozen.
Thyroxine (Free T4)	TSH	CHEM				See Thyroid Screening.
Thyroxine Binding Globulin (TBG)	TBG	SD	Blood	Yellow	5 mL	Referred Send frozen
Ticks	BUGID	MIC	Intact, live tick if possible	Dry sterile container		Referred. Microbiology Requisition required with sample. Include completed TMH Bug Identification Requisition
Tobramycin - Trough	TOBT	SD	Blood	Yellow	5 mL	Referred. Trough levels for Tobramycin based on traditional dosing. Blood should be drawn 5-30 mins prior to dose.
Tobramycin - Peak	TOBP	SD	Blood	Yellow	5 mL	Referred. Peak levels for Tobramycin based on traditional dosing. Blood should be drawn 30 to 60 minutes after the end of infusion. Collect one hour after IM injection or 30 mins after IV infusion.
Tobramycin – Once Daily dose	TOBODD	SD	Blood	Yellow	5 mL	Referred. Trough levels for Tobramycin based on extended interval dose. Blood should be drawn preferably 6 hours prior to the next dose.
Tofranil	IMIPR	SD				See Imipramine.
Topiramate (Topamax)	TOPIR	SD	Blood	Red	6 mL	Referred, Spin, separate and freeze. Send frozen.
TORCH Test (includes CMV, Herpes, Toxo Rubella & Parvo)	TORCH	SD	Blood	Red or Yellow`	4 mL	Referred
Total Protein	PROT	CHEM	Blood	PST/Yellow	4.5 mL	

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Total Protein Urine	PROTU24	CU	Urine	24 hour jug	24 hour specimen	No preservative. Cannot be collected at same time as constituent requiring a preservative. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Total T3						Test not available.
Toxocara	TOXOCARA	SD	Blood	Red or Yellow	6 mL	Referred. Request must include: clinical history, place of birth, any travel history, relevant lab testing such as parasite found in stool.
Toxoplasmosis - Recent Infection	TOXOM	SD	Blood	Red or Yellow	3 – 4 mL	Referred.
Toxoplasmosis - Immune Status	TOXOG	SD	Blood	Red or Yellow	3 – 4 mL	Referred.
Transcobalamine	B12BIND	SD				Test no longer available. Order B12BIND instead.
Transferrin	TRANSF	SD	Blood	Yellow	4 mL	Referred.
Transglutaminase	TRANSGLUT	SD	Blood	Yellow	6 mL	Referred. Includes Transglutaminase and IgA
Trichinella	TRICH	SD	Blood	Red or Yellow	6 mL	Request must include: clinical history, place of birth, any travel history, relevant lab testing such as parasite found in stool. Referred.
Trichomonas, (Males)	TRICHM	UA	Urine	Sterile container		
Trichomonas (Females)	VS	MIC	Vaginal/urethral discharge	C&S swab		Referred. Microbiology Requisition required with sample.
Triglycerides	TRIG	CHEM	Blood	PST/Yellow	4.5 mL	Non- Fasting except for- patient with Hx of high triglycerides
Tri-iodothyronine (Total T3)						Test not available.
Troponin I	TROP	CHEM	Blood	PST	4.5 mL	
Tryptase (Total)	TRYPTASE	SD	Blood	Red	6 mL	Referred Deliver to LAB ASAP. Spin, separate and freeze immediately. Send frozen.
Tuberculosis (TB)	TBCULT	MIC				See Mycobacteria. Microbiology Requisition required with sample.
Tularaemia	TULAR	SD	Blood	Red or Yellow	3 – 4 mL	Referred

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Tysabri (Natalizumab) Antibodies	TYSABRI	SD	Blood	Yellow	5 mL	Referred Spin, separate and freeze. Send frozen
Type and Screen	GRS	BBK	Blood	Pink	6 mL	
Potential Type and Screen	BBHOLD	BBK	Blood	Pink	6 mL	Specimen will be held in Transfusion Medicine for 48hrs pending further orders. NO testing will be performed until further orders received.
Tyrosine - Blood	AMINO	SD				Included in Amino Acids Serum (AMINO)
Tyrosine - Urine	AMINOMET	SDU				See Amino Acid - Metabolic Screen (AMINOMET)
Urate	URIC	CHEM				See Uric Acid.
Urea	BUN	CHEM	Blood	PST/Yellow	4.5 mL	
Urea Nitrogen - 24 hour urine	UREAU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. No preservative. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Ureaplasma						See Mycoplasmal infections
Uric Acid	URIC	CHEM	Blood	PST/Yellow	4.5 mL	
Uric Acid - 24 hour urine	URICU24	SDU	Urine	24 hour jug with preservative	24 hour specimen	Referred. 10 ml of 10N NaOH Refrigerate urine during collection. ee <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Urinalysis	URINE	UA	Urine	Screw top container	10 mL	
Urinary Free Cortisol	CORTU24	SDU				See Cortisol, urine. Referred. (CORTU24)
Urine - Drug Screen	DRUGUR	CU				See Drug Screen (DRUGUR)
Urine - Routine Culture	UCULT	MIC	Urine	Dry sterile container	5-10 mL	Referred. Microbiology Requisition required with sample. Note the method collection: catheter, midstream, etc. Transfer to UriSWAB container for transport to reference laboratory. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Urine - Yeast and routine culture	CUY	MIC	Urine –clean catch, midstream or catheter	Dry sterile container	5-10 mL	Referred. Microbiology Requisition required with sample. Note the method collection: catheter, midstream, etc. Transfer to UriSWAB container for transport to reference laboratory.
Urine - Chlamydia/GC DNA	CHLAMGCUR(urine)	MIC	First-void, approx.30-50 mLs,	Dry sterile	30-50 mL	Referred. Microbiology Requisition required with sample. Keep refrigerated, deliver within 24hrs See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Urine Hemosiderin	HEMOSIDUR	SDU	Urine	Screw top container	15 mL	Referred. Clinical history required.
Urine microscopic	MICU					Can use same specimen as Urinalysis. Can ONLY be ordered by Laboratory staff.
Urine Protein Electrophoresis	PREL24	SDU				See Protein Electrophoresis, urine.
Urobilinogen	URINE	UA				Included in Urinalysis (URINE)
Uroporphyrin Qualitative			Urine			See Porphyrins.
Vaginal culture: Vaginitis/ discharge, Trichomonas, Yeast	VS	MIC	Vag or Vag Vault	C&S swab or smear		Referred. Microbiology Requisition required with sample. Check age and diagnosis. Write this clearly on requisition.
2. Pregnancy - if Dx as above order both	CGBS	MIC	Vaginal/Rectal is specimen of choice	C&S swab		Referred. Microbiology Requisition required with sample. Write diagnosis clearly on requisition.
<ol> <li>If ≤ 13 years or sexual assault</li> </ol>	CGEN	MIC	Vaginal	C&S swab		Referred. Microbiology Requisition required with sample. Check age and diagnosis. Write this clearly on requisition.
Valium	DIAZ	SD				See Diazepam.
Valproic Acid (Depakene)	VAL	SD	Blood	PST/Yellow	4.5 mL	Referred. Also called Epival. Collect prior to dose.
Vancomycin - Trough	VANT	С	Blood	Yellow	5 mL	Collect trough specimen within 30 minutes of administrating next dose

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Vancomycin - Peak	VANP	С	Blood	Yellow	5 mL	Collect peak specimen one hour post infusion.
Vancomycin -Random	VANR	С	Blood	Yellow	5 mL	Collect 1h after infusion
Vanillyimandelic Acid (VMA)	VMA24	SDU	Urine	24 hour jug	24 hour specimen	Referred. Collected over 20 mL 6N HCI. Restrict caffeine, nicotine and alcohol 24 hours prior to collection. List any medications. Discontinue Aldomet for 5 days prior. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Varicella zoster - Serology (Recent infection)	VZ	SD	Blood	Red or Yellow	2 x 5 mL	Referred (Chicken Pox, Shingles) Includes Varicella IgG and IgM.
Varicella zoster - Serology (Immune Status)	VZG	SD	Blood	Red or Yellow	5 mL	Referred. (Chicken Pox, Shingles) Send two aliquots Requires a separate tube if ordered with other tests.
Varicella zoster - Culture	VZVPCR					See VZVPCR (Varicella group PCR)
Varicella group PCR	VZVPCR	MIC	Body fluids other than CSF Blood	Dry sterile Lavender x2	2 x 4 mL	Referred. Microbiology Requisition required with sample. For CSF samples see HSVVZVPCRCSF
Vasoactive intestinal Polypeptide	VIP	SD	Blood	Lavender	4 mL	Referred Fasting. Deliver to lab ASAP. Separate plasma and freeze immediately. Send frozen. Stable for 14 days when frozen. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
VDRL	SYPH	SD				See RPR (Syphilis Screen)
Vincent's angina	GS	MIC	Mouth/Tongue/Gum swabs	C&S swab		Referred. Microbiology Requisition required with sample.
Viral Gastroenteritis PCR	NORPCR	MIC	Stool	Dry sterile container	Walnut size	Referred. Microbiology Requisition required with sample. Includes: Norovirus G1, Norovirus G2, Astrovirus, Adenovirus, Rotavirus and Sapovirus.
Viscosity	VISCO	SD	Blood	Red at 37 degrees	6 mL	Referred. Collect and maintain at 37 degrees. Deliver to lab ASAP. Allow to clot at 37C, separate ASAP and refrigerate serum. Send cold.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Vitamin A	VITA	SD	Blood	Red	4 mL	Referred Protect from light and avoid hemolysis. Collect on ice. Send frozen.
Vitamin B1 (Thiamin)	VITB1	SD	Blood	Lavender	7 mL	Referred. Avoid hemolysis and protect from light. Send frozen
Vitamin B12	VB12	CHEM	Blood	PST/Yellow	4.5 mL	
Vitamin B6 (Pyridoxic Acid)	VITB6	SD	Blood	Lavender	2x4 mL	Referred. Avoid hemolysis and protect from light. Send frozen
Vitamin C	VITC	SD	Blood	Yellow	5 mL	Referred. Deliver to lab ASAP. Protect from light – wrap in foil. Send frozen
Vitamin D: 1, 25 Dihydroxy	VITD125	SD	Blood	Yellow	5 mL	Referred. Deliver to Lab ASAP. Spin, separate and freeze ASAP.
Vitamin D: 25 Hydroxy	VITD	SD	Blood	Yellow	5 mL	Referred
Vitamin E	VITE	SD	Blood	Yellow	5 mL	Referred Protect from light.
Von Willebrand's Panel	VWF	SD	Blood	Blue	2 x 4.5 mL	Referred. Includes VWF antigen and FVIII VWF activity. Clinical history and diagnosis required. Aliquot into 2 plastic vials and freeze. Send frozen
VRE Screen (Vancomycin Resistant Enterococci)	VRE	MIC	Rectal swab or stool	C&S swab or dry sterile container		Referred. Microbiology Requisition required with sample. Preliminary screening done in-house, suspect samples sent to reference laboratory for confirmation. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Vulva Swab - Routine Culture	CGEN	MIC	Vulva swab	C&S swab		Referred. Microbiology Requisition required with sample.
West Nile PCR	WNPCR	MIC	CSF	Dry sterile container	0.5 – 1 mL	Referred. Microbiology Requisition required with sample. Will be done routinely in any request for CSF viral culture during the appropriate season of the year

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
West Nile Virus Serology (Also included in Arbovirus group request)	WNSEROL	SD	Blood	Red – Yellow	3 – 4 mL	Referred. Acute and convalescent sera required.
White Blood Count (WBC)	CBC	HAEM				Request CBC.
Whooping cough (Pertussis) (done by PCR)	BORDPCR	MIC	Nasopharyngeal swab	UTM media-Viral Transport medium(pink liquid)		Referred. Microbiology Requisition required with sample. Testing done by PCR
Worm for identification	WORMID	MIC	Worm	Dry sterile container		Referred. Microbiology Requisition required with sample.
Wound infections - routine culture	CMISC	MIC	Aspirate or swab of infected area	C&S swab or dry sterile container if fluid		Referred. Microbiology Requisition required with sample. If anaerobes requested, order CMISCAN.
Xylocaine						See Lidocaine.
D-Xylose Tolerance	DXYLOSE	SD	Blood (fasting + 1 hr post xylose dose)	Yellow	2 ml serum from ac and from 1 hr post specimen	See D-Xylose Tolerance in Chemistry section for procedure. Contact Chemistry Department to make preparations for test
Yeast Culture - Throat Swab	TY	MIC	Throat swab	C&S swab		Referred. Microbiology Requisition required with sample.
Yeast Culture - Urine	CUY	MIC	Urine – mid-stream, catheter etc.	Dry sterile container	10 – 15 mL	Referred. Microbiology Requisition required with sample. Note the method collection: catheter, midstream, etc. Transfer to UriSWAB container for transport to reference laboratory
Yeast Culture - Blood	CBY	MIC	Blood	Blood culture media	10 - 20 mL	Referred. Microbiology Requisition required with sample.Collection date and time required.
Yeast Culture - Vaginal	VS	MIC	Vaginal swab	C&S swab		Microbiology Requisition required with sample.Actual culture not required - Gram only.
Yeast Culture - Gum/Mouth/Tongue	GS	MIC	Gum, mouth, tongue	C&S swab		Referred. Microbiology Requisition required with sample.
Yeast Culture - Stool	CSY	MIC	Stool	Dry sterile container Stool C&S	Walnut sized piece	Referred. Microbiology Requisition required with sample. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Yellow Fever Serology	YELLFEV	SD	Blood	Red or Yellow	5 mL	Referred.

TEST	MNEMONIC	OE/LAB CATEGORY	SPECIMEN	CONTAINER	AMOUNT	INSTRUCTIONS
Yersinia - Culture	CS	MIC	Stool	Enteric Pathogen Transport	Walnut sized piece	Referred. Microbiology Requisition required with sample. Included in routine stool culture See <u>Section 10: Collection Instructions</u> for patient instruction sheet.
Yersinia - Serology	YERSER	SD	Blood	Red or Yellow	5 mL	Referred
Yo Antibody	PARANEO	SD	Blood	Yellow	5 mL	Referred. Includes: ANNA-1(Hu)+ ANNA-2(Ri)+PCA (Yo)
Zarontin	ETHO	SD				See Ethosuximide
Zinc, Plasma	ZN	SD	Blood	Navy #368381	6 mL	Referred Deliver to LAB ASAP. Spin, separate and freeze immediately. Send frozen.
Zinc Protoporphyrin	ZPP	SD	Blood	Navy #368381	6 mL	Referred. Send whole blood, DO NOT FREEZE
Zinc	ZNU24	SDU	Urine	24 hour jug	24 hour specimen	Referred. See <u>Section 10: Collection Instructions</u> for patient instruction sheet.

# **Anatomical Pathology**

- A. General Pathology Information
- B. <u>Tissue Specimens: Preparation of</u>
- C. <u>Tissue Specimens: Submitting of</u>
- D. Amputated Parts
- E. <u>Autopsy Services</u>
- F. Bacteriology Cultures
- G. Breast Specimens- Submitting
- H. Crystal Identification Tissue
- I. <u>Electron Microscopy</u>
- J. Frozen Sections
- K. Hormone Receptors (ER/PR): Tissue
- L. Immunofluorescence
- M. Lymph Nodes (For Diagnosis of Lymphoma only)

## A. General Pathology Information

#### Surgical Pathology

- All tissue is to be sent to the Histology section of the laboratory for examination. The only exceptions are:
  - Teeth
  - Placenta when no pathology has been requested by surgeon.

## Histopathology Hours

Monday - Friday: 0700 - 1600
 NOTE: Closed weekends and statutory holidays

## **Specimen Containers**

- Histopathology will supply specimen containers of various sizes to the OR, OP Clinics and nursing units.
- Containers can be obtained at the specimen reception area of the Laboratory. Contact Histology at 3248.
- It is the responsibility of the nursing staff to select the appropriate sized container for the submitted specimen. On average, 10-15 volumes of fixative should be used for every volume of tissue.

## **Tissufix Fixative**

• Will be provided in either 90 ml or 20 L containers to the OR and OP Clinics.

# B. <u>Tissue Specimens: Preparation of</u>

- 1. To prevent autolysis from taking place, all tissue specimens must be placed in Tissufix as soon as possible after collection. Exceptions are specimens for frozen section, lymph nodes for a diagnosis of lymphoma and needle localization lumpectomies. The container should be large enough to hold the specimen plus 10 -15 x volume of Tissufix.
- 2. Keep at room temperature.
- 3. If Tissufix is not available, place specimen in refrigerator until Tissufix becomes available. Notify Laboratory personnel ASAP.
- 4. It is vital that small biopsies (core biopsies of the prostate and breast, gastric, curettings etc.) are placed in Tissufix **immediately** after collection.
- 5. Large tissue specimens such as stomach, bowel, kidney, gallbladder, uterus, spleen appendix, ovaries, testes, tonsils etc. should be gently washed with water to remove excess blood and other contaminants before placing in Tissufix. Ensure an appropriate sized container is used with an adequate volume of Tissufix added. Ensure the entire specimen is submersed. Send all large tissue specimens to Histopathology ASAP.

## C. Tissue Specimens: Submitting of

- 1. All tissue specimens are to be sent to the Histopathology section for examination. Specimens **to be excluded** include teeth and placenta (except when pathology has been requested by the surgeon).
- 2. Surgical specimens will be delivered to the specimen drop-off window, of the Laboratory where they will be received, date/time stamped and signed for by laboratory staff.
- 3. All pathology requisitions must be filled out completely. If patient's addressograph is not used on the requisition, the following information **must** be included:
  - patient's full name
  - CPI# and/or Medicare Number
  - D.O.B.
  - collection date/time
  - location
  - source of specimen
  - clinical history
  - operative findings
  - physician(s) full name(s) include submitting physician and any physician who will receive a copy of final report
    - **NOTE:** Requisitions must be signed by the ordering physician.
- 4. Send specimens to the Laboratory as soon as possible after the case is completed.

## D. Amputated Parts

- Amputated parts are routinely examined. A completed Histology requisition and a signed "Authorization for Disposal of Amputated Part" must accompany the specimen to Histopathology.
- Refer to policy NUR-7-975-01 for the preparation and handling of amputated limbs.
- Small amputated limbs (toes, fingers) are sent to the Laboratory on Tissufix fixative.
- Large amputated limbs must be placed in the Morgue refrigeration unit (by nursing staff). Ensure Histology requisition and "Authorization for Disposal of Amputated Part" form are

sent to the Histopathology section of the Laboratory and not left with the specimen in the morgue.

# E. Autopsy Service

# Hospital Autopsy – Performed at TMH

- 1. Physician is responsible to;
  - a) notify the family of the death and make request for the autopsy.
  - b) arrange to have the Authorization for Autopsy signed by next of kin (contact Nursing Supervisor for form)
  - c) call the TMH Pathologist-On-Call for autopsy
    - weekends and evenings call TMH switchboard at 506-857-5111 and ask to speak to Pathologist on call for autopsy
    - weekday (8-4pm) call Pathology department at 506-857-5300 and ask to speak to Pathologist assigned to autopsy
  - d) complete the Autopsy Requisition (contact Nursing Supervisor for form)
  - e) notify MRH Nursing Supervisor of date and time of autopsy
- 2. TMH pathologist or designate notifies TMH Nursing Supervisor of impending transfer for autopsy from Miramichi
- 3. MRH Nursing Supervisor must notify the funeral director and family when the autopsy will be performed.
- 4. The body will be delivered to the MRH Morgue and managed in the same manner as a Coroners case.
- 5. MRH Nursing supervisor must ensure the body is properly identified and that the following documents accompany the body
  - i. Authorization for Autopsy signed by next of kin (contact Nursing Supervisor for form)
  - ii. Completed Autopsy Requisition with rationale for the request (contact Nursing Supervisor for form)
  - iii. Copy of patient's medical record (pertinent documents)
  - iv. Copy of completed Registration of Death
  - v. Copy of completed <u>Record of Death</u> (Form# 1170)
- 6. The funeral home will pick up the body at the MRH morgue for delivery to TMH.
- 7. Once autopsy is completed at TMH, the morgue attendant will notify TMH nursing supervisor that the body is released. TMH Nursing supervisor will be responsible to notify the funeral home of same.

## **IMPORTANT NOTES**

- Bodies without proper identification and completed documents will NOT be accepted into the TMH morgue
- There will be no autopsies performed on Sunday at The Moncton Hospital
- TMH pathology will ensure there is a current list of Pathologist on call for Autopsy
- Patient valuables/ belongings should not be sent with the body to TMH

## Coroner's Autopsy- Performed at TMH

Type 1 Coroner autopsies are ordered by the coroner's office.

Pathologist Notification:

1. The pathologist on-call for autopsies will be notified once the consent for autopsy has been given and signed.

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- 2. Contact TMH Pathologist-On-Call for autopsy
  - weekends and evenings call TMH switchboard at 506-857-5111 and ask to speak to Pathologist on call for autopsy
  - weekday (8-4pm) call Pathology department at 506-857-5300 and ask to speak to Pathologist assigned to autopsy

## F. <u>Bacteriology Cultures</u>

When bacteriology studies are requested, the tissue must be submitted in **a sterile container** (no fixative added). The ordering physician must specify on a microbiology requisition that culture of the tissue is required.

#### G. Breast Specimens- Submitting

All breast lumpectomies and mastectomies must be accompanied by the specially stamped Histopathology requisition which has the following information:

- Time specimen out of patient
- Time specimen received in Lab
- Time pathologist preps/HR
- Date/Time Specimen on Processor
- Date/time specimen out of Tissufix
- Core Biopsies Send needle (core) biopsies in Tissufix.
- Vacuum Assisted breast Biopsies send in Tissufix
- Lumpectomy –Needle Localization After surgical removal, refer the specimen to Diagnostic Imaging for imaging and then send specimen/requisition to Histopathology. Send unfixed to Laboratory ASAP.
- Mastectomy Send on Tissufix.
- Lumpectomy Send on Tissufix.
- Frozen section Send unfixed. (See section "Procedure for Frozen Section").

## H. Crystal Identification Tissue

- 1. Ordering physician must specify on the pathology requisition their request for examination of uric acid crystals.
- 2. Send tissue in Anhydrous Denatured Ethyl Alcohol. Do not place in Tissufix or saline.
- 3. Specimen is referred to SJRH.

#### I. Electron Microscopy

Specimens for electron microscopy must be arranged with the Pathologist before the procedure is performed. The laboratory will prepare the specimen and arrange to have the procedure performed at a reference laboratory.

#### J. Frozen Section

- 1. Whenever possible, frozen sections are to be **scheduled in advance** to prevent any delay in processing and reporting.
- 2. Place **unfixed tissue** in a properly labeled specimen container
- 3. Deliver to Histology ASAP.
- 4. Specimens must be accompanied by a properly completed pathology requisition which indicates the source of specimen and any clinical details that may assist the pathologist in providing a thorough diagnosis.
- Indicate telephone number of the OR so pathologist can contact surgeon.
   NOTE: Ensure patient has been registered in Meditech before sending the frozen section to the laboratory or there will be a delay in processing.

#### K. <u>Hormone Receptors</u>

Hormone Receptors (ER\PR, Her2) are referred to The Moncton Hospital Pathology department for interpretation.

#### L. <u>Immunofluorescence</u>

- 1. Two tissue samples are required.
- 2. Place one piece of tissue in **Tissufix** and the second in **Zeus Tissue Fixative** (available from Histology). If there is a delay in sending specimens to Histology, refrigerate the specimen placed in Zeus Tissue Fixative.
- 3. Immunofluorescence procedures are referred to the DECH Fredericton, NB.

## M. Lymph Nodes (For Diagnosis of Lymphoma only – Flow Cytometry Testing)

- 1. Notify histopathology that a "lymph node specimen for diagnosis of Lymphoma" is being collected.
- 2. Send lymph node fresh, (no Tissufix, saline or gauze), in a sterile air tight container. Note: TMH Flow Cytometry will not accept tissue received in Tissufix
- 3. Send to the Histopathology department ASAP.
- 4. Ensure a completed requisition accompanies the specimen.
- 5. When Lymphoma is suspected, specimens should only be collected on regular work days (Monday to Thursday ONLY). Do not collect on Fridays or day preceding a Statutory Holiday, as the Flow Cytometry Lab at TMH is not open to receive specimens.
- 6. Ensure specimen is delivered to Pathology before 1300 in order for specimen to be sent by courier to Moncton.

**NOTE:** If lymph node is removed after 1600 hours Monday-Friday, weekends or statutory holidays, place tissue in Tissufix immediately.

### CLINICAL CHEMISTRY

- A <u>5-HIAA includes 5HIAA Total and 5HIAA/Creatinine Ratio</u>
- B Blood Gas Procurement
- C <u>Ionized Calcium</u>
- D <u>Catecholamines (includes Epinephrine, Norepinephrine and Creatinine)</u>
- E <u>Creatinine Clearance</u>
- F <u>Tolerance</u>s
- G <u>Fecal Occult Blood</u>
- H Fecal Fat 72 Hour
- Lactate
- J <u>Microalbuminuria Test: instructions for collection of Urine</u>
- K <u>Metanephrines</u>
- L Semen Analysis Collection
- M <u>Urine Collection(Routine Urinalysis)</u>
- N. Urine Collection 24 Hour
- O. Vanillyimandelic Acid (VMA)

### A. 5-HIAA includes 5HIAA Total and 5HIAA/Creatinine Ratio

A 24 hour urine specimen is collected over 20 mls of 6N HCL. The specimen is refrigerated during collection.

- Walnuts, hickory nuts, eggplant, avocados, bananas, pineapples, tomatoes, mollusks and plums contain large amounts of serotonin so must be avoided 48 hours before and during testing.
- If advised by a physician, patients should avoid prescription and non-prescription medication for three (3) days prior to collection.

Exercise extreme caution when adding urine to the 24 hour container as the acid is extremely corrosive to the skin. Wash any areas of the body which come in contact with the acid in the container with water immediately.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

### B. BLOOD GAS PROCUREMENT

Arterial/ Venous Blood Gas

- 1. Collect a minimum of 2 mls of arterial blood. Immediately remove needle and recap using universal precautions to prevent air entering the syringe. Use of needle shields is recommended.
- 2. Venous blood gases are collected in a lithium heparin tube <u>with no gel separator</u>. The tube must be completely filled. Do not allow any room air into the tube.
- 3. Rotate syringe/tube to mix well. Label the specimen with patient's full name and ID#
- 4. Deliver immediately to the laboratory.

**NOTE:** If unable to deliver immediately, place sample on ice. (Do **Not** send through pneumatic tube system).

### C. Ionized Calcium

Collected by one of 2 methods:

- Preferred collection Serum collected in SST tube, anaerobically
- Capillary samples are acceptable when collected in SST microtainers, filled completely and capped until testing. Heparinized capillary tubes are not acceptable.
- Approved blood gas syringes must have a balance heparin solution or a reduced heparin concentration to reduce the effect of heparin on the calcium measurement.

### D. Catecholamines (includes Epinephrine, Norepinephrine and Creatinine)

A 24 hour urine specimen is collected over 20 mls. of 6N HCL. The specimen is refrigerated during collection.

### Diet and Medication Restrictions\*

Restrict caffeine, nicotine, and alcohol 24 hours prior to collection. Discontinue Methyldopa (Aldomet) at least 5 days prior to collection. Most other drugs do not usually interfere with the assay.

Exercise extreme caution when adding urine to the 24 hour container as the acid is extremely corrosive to the skin. Wash any areas of the body which come in contact with the acid in the container with water immediately.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

### E. <u>Creatinine Clearance</u>

Creatinine Clearance testing requires serum and urine creatinine levels. If creatinine serum has not been collected the Creatinine Clearance will be cancelled and a 24 hour Creatinine test will be ordered and resulted.

- 1. Ensure that the patient is well hydrated prior to starting test.
- 2. Collect a 24 hour urine. See Urine Collection 24 hr
- 3. All urine is collected for a 24 hour period. No preservative is required.
- 4. Collect 4 mls of blood in a SST (Yellow top) or PST (pale green) tube any time during the 72 hour period and order a serum creatinine (a creatinine performed within the preceding 72 may be used for calculation purposes)
- 5. Send the 24 hour urine sample to the laboratory. Include height (cm) and weight (kg) on the requisition (paper or electronic).

### F. Tolerances

### **Glucose Tolerance**

The following will be adhered to before collecting testing related to Glucose Tolerance Testing (GTT75, GTT75PRE only, this **does not** include 50 gm loads)

- **1.** Patient must be fasting
- 2. Patients are to remain in the area for monitoring by hospital staff during the test. All patients should be advised to remain inactive during the test.
- **3.** Once the test has started, nothing can be given to the patient except small amounts of water until the test is complete. **NOTE:** Smoking is not permitted.
- 4. Patients fasting glucose will be drawn, and then the 75 g drink is administered. Glucose tests will be drawn at intervals post completion of drink depending on the tolerance ordered.

# NOTE: Patients for 50 gm loads are not required to be fasting and do not require a glucose by point of care.

### Lactose Tolerance

- 1. The Laboratory will obtain the lactose from Pharmacy and make drink based on the patient's weight and age. Drink is more palatable if cold.
- 2. Testing on children is not permitted as per LMAC and Dr Cartier.
- **3.** Patients are to remain in the area for monitoring by hospital staff during the test. All patients should be advised to remain inactive during the test.
- 4. Once the test has started, nothing can be given to the patient except small amounts of water until the test in complete. **NOTE:** Smoking is not permitted.
- 5. Patients fasting glucose will be drawn and then patient is given the lactose drink.
- 6. Once the drink is ingested blood is drawn at 1/2 hr, 1 hr, 1 1/2 hr and 2 hr for glucose testing.

### **D-Xylose Tolerance**

- 1. Laboratory will obtain D-Xylose drink from Pharmacy and make the drink (5 gm in 250 ml water) The same dose if given for adults and children.
- 2. Patient must be fasting from midnight.
- **3.** A fasting D-Xylose specimen is collected, D-Xylose drink is administered, the patient is asked to drink this quickly.
- 4. One (1) hour after the drink another D-Xylose specimen is collected.
- **5.** The specimens are processed in the Laboratory for dispatch to The Moncton Hospital Laboratory.

### G. Fecal Occult Blood

Patient's instructions for using Hemocult slides:

For accurate test results apply samples from bowel movements collected on three (3) different days.

Do not collect specimen from toilet water, during a menstrual period or when suffering from bleeding hemorrhoids or open cuts on hands. Protect slides from heat, sunlight, ultraviolet light and fluorescent light. Avoid non-steroidal anti-inflammatory drugs such as ibuprofen, naproxen or aspirin (more than one aspirin a day) for 7 days prior to and during collection period. For three days prior to and during the collection period, avoid Vitamin C in excess of 250 mg per day from supplements, citrus fruits and juices; avoid red meat such as beef, lamb and liver. Eat a well-balanced diet including fiber such as bran cereal, fruits and vegetables. Return completed cards to the laboratory within 10 days of collection.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

### H. Fecal Fat - 72 Hour

- **1.** Obtain a pre-weighed container from the laboratory.
- Patient must follow the diet outlined in for <u>Section 10: Collection Instructions</u> a total of five (5) days:
- **3.** Collection of stools is started on the third day and all stools obtained in the next 72 hours are place in the pre-weighed container.
- 4. Do not use laxatives.
- **5.** Barium interferes with the testing. Wait at least 48 hours after barium is given before starting this test.
- 6. Do not use synthetic fat substitutes, fat blocking supplements or obesity medications such as Xenical or Orlistat.
- 7. Keep the container refrigerated until it is delivered to the laboratory.

### I. Lactate

- **1.** Do not use tourniquet during collection!
- 2. Whole blood collected in lithium tubes (no gel), mixed well and placed immediately on ice.
- **3.** Venous and arterial blood may be used for lactate testing however they must be ordered as LACV for lactate, venous or LACA for lactate, arterial.
- **4.** Arterial blood draws can be used for testing.
- 5. Deliver to lab on ice immediately for testing within 15 min of drawing the blood.

**NOTE:** 30 min at room temp will falsely increase lactate by 30 % and use of tourniquet can cause false high results.

### J. Microalbuminuria Test:

1. Test no longer available. Replace with albumin / creatinine ratio.

### K. Metanephrines

Metanephrines in includes the following:

- Total Metanephrines
- Total Metanephrine/Creatinine Ratio
- Normetanephrine
- Normetanephrine/Creatinine Ratio A 24 hour urine specimen is collected over 20 mLs of 6N HCL. The specimen must be refrigerated during collection.

**Diet and Medication Restrictions** 

- Restrict caffeine, nicotine, and alcohol 24 hours prior to collection. Discontinue Methyldopa (Aldomet) at least 5 days prior to collection. Most other drugs do not usually interfere with the assay.
- Exercise extreme caution when adding urine to the 24 hour container as the acid is extremely corrosive to the skin. Wash any areas of the body which come in contact with the acid in the container with water immediately.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

### L. <u>Semen Analysis Collection</u>: Instructions

Semen analysis can be ordered for Fertility or Vasectomy. For a vasectomy reversal, please order a semen for fertility.

- 1. Specimen is collected by masturbation in a sterile container in the morning after 2 7 days of abstinence (no sexual intercourse/masturbation or any ejaculation). The total ejaculation must be collected.
- 2. Do not collect specimen in a condom or use lubricants for collection.
- 3. Write the patient's name, Medicare number and date and time of collection on the container.
- **4.** Keep the specimen warm by transporting next to the body. Do not expose to heat or cold temperature.
- Deliver the specimen to the Laboratory <u>Main Lab within 30 minutes of collection time</u>. Specimens are accepted by appointment Wednesdays only between 8 am and 12pm. Proceed to Laboratory Registration in the Admissions Department for registration after delivering sample. Completed <u>requisition 30337</u> must accompany sample.

### M. Urine Collection (Routine Urinalysis): Instructions

- 1. It is necessary to use a urine container obtained from lab. **NOTE**: If urine culture is required use a sterile container.
- **2.** Instruct patient to collect a clean midstream catch.
- **3.** Avoid wetting the outside of the container. Ensure the cap is on securely.
- **4.** Label the specimen with the patient's name and unique ID# or Medicare number.
- 5. It is recommended that urinalysis testing be performed within 2 hours of collection. If the specimen cannot be delivered promptly to the laboratory it should be refrigerated until delivery. Samples greater than 6 hours from collection will have a urine dipstick performed, but urine microscopic will not be performed. Urine samples greater than 12 hours from collection will **not** have a urine dipstick performed. If testing is to be delayed by more than two hours after reaching the laboratory, specimen can be refrigerated for up to 12 hours.
- 6. Whenever possible, collection for routine urinalysis on inpatients should be deferred to the early morning, as this concentrated early morning sample is the best sample for quality testing.

### N. Urine Collection: 24 Hour:

### Collection may start at any time but a 0700 hour to 0700 hour specimen is preferred.

- 1. 24 hour collection containers may be obtained from the laboratory. The laboratory staff must be informed of what tests are ordered to ensure preservatives, if required, are added to the container.
- 2. At the start of the test period (i.e. 0700h), the patient empties their bladder and the urine is discarded. All urine is collected for the next 24 hours. At the end of the test period, (i.e. 0700h the next morning) the bladder is emptied and this urine is added to the collection. This completes the collection. If the patient wishes to defecate, the bladder should be emptied just before to prevent loss of urine.

NOTE: Please refrigerate urine during collection period, adding each aliquot as collected..

**3.** Complete the requisition (electronic or paper) with all required information and send to the laboratory with the specimen. Label the specimen with patient full name and Medicare number, time and date of collection (start and finish).

This is a CONTROLLED document. LAB-7-ADM-LUM-00001

Urine collection over a 24 hour period should not begin on Friday or Saturday, but if specimens are completed on weekends, they must be sent to the laboratory promptly for refrigeration or freezing. If not done so, specimens may be unsuitable for analysis. Specimens must be handed directly to laboratory personnel on Saturdays, Sundays and holidays.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

### O. Vanillyimandelic Acid (VMA)

VMA is a urinary metabolite of the catecholamines, but VMA analysis will not indicate which catecholamine (epinephrine or norepinephrine) is the major precursor. Analysis for VMA is useful as a confirmation of elevated catecholamine excretion and in cases of unexplained hypertension with normal catecholamine levels. Also, VMA analysis may be of particular value in cases of neuroblastoma, which often produces elevated VMA levels.

### Diet and Medication Restrictions\*

Restrict caffeine, nicotine, and alcohol 24 hours prior to collection. Discontinue Methyldopa (Aldomet) at least 5 days prior to collection. Most other drugs do not usually interfere with the assay.

A 24 hour urine specimen is collected over 20 mls of 6N HCL. The specimen is refrigerated during collection.

Exercise extreme caution when adding urine to the 24 hour container as the acid is extremely corrosive to the skin. Wash any areas of the body which come in contact with the acid in the container with water immediately.

NOTE: See Section 10: Collection Instructions for patient Instruction sheet

## Cytology

- A Cytology General Information
- B <u>Cytology Supplies</u>
- **C** <u>Gynecological Specimens (PAP Smears): Collection</u>
- D Non-Gynecological Specimen Types: Collection
- E HPV Testing (Gynecological and Anal): Collection
- F Submitting Cytology Specimens

### A. Cytology General Information

Diagnostic Cytology is the process of studying cells to identify diseases. Cytology is a useful method for detection of malignant and pre-malignant changes, as well as for the diagnosis of certain reactive and infective conditions.

The procurement of adequate specimens is essential for the proper interpretation of the submitted material. Many diagnostic problems can be avoided if careful attention is given to collection and fixation of patient samples. Rapid fixation of smears (slides) and fluid cytology specimens is necessary to preserve cellular detail. Please deliver all cytology specimens with accompanying completed blue requisition(s) to the laboratory as soon as possible. Missing or incorrect information will result in specimen rejection or unnecessary delays in processing. Please include all relevant clinical history such as any previous history of cancer and include date of LMP, hormone treatment and HPV vaccination status if known.

All Miramichi Area Gynecological (Pap smears) and Non-Gynecological specimens are processed, screened, and reported at The Moncton Hospital, Monday-Friday, 0800-1600, except for statutory holidays.

### B. Cytology Supplies

The laboratory **<u>does not</u>** supply slides for collection of gynecological specimens (pap smears)

### • SurePath Collection Vials for pap specimens

The Cytology Department now offers liquid-based gynecologic sampling. Vials and collection devices are ordered from hospital Stores. Vials must be labeled with patient's name and other unique identifier and submitted with the same blue Cytology requisition as before.

• Specimen containers and Cytology fixative

Cytology will supply sterile specimen containers (90 ml size) containing CytoRich<sup>™</sup> Red (CRR) fixative for the collection of *non*-gynecological fluid specimens. These containers can be obtained from the Specimen Dispatch/Receiving area of the laboratory (Level 2). **NOTE:** The laboratory does not provide spray fixative for preservation of slide preparations

### • Microscope slides

All non-gynecological specimens are to be collected in CytoRich<sup>™</sup> Red fixative, unless it is not possible due to the type of specimen (e.g., nipple discharge, scraping of skin

lesion, etc.).

Cytology will supply special charged slides, i.e., *Surgipath Snowcoat x-tra,* to the OR and OPD clinics for **non-gynecological** slide preparations only. These slides are used to help prevent the loss of cellular material from the slides.

**NOTE:** Limit slide preparations to those specimens where collection of fluid is not possible. Spray-fix slides immediately. DO NOT USE THESE SLIDES FOR PAP SMEARS.

### • Slide mailers

The laboratory will supply single-use slide mailers for submitting pap smears. Mailers can be obtained from the Specimen Dispatch/Receiving area of the laboratory (Level 2).

### Collection vials and requisitions for HPV testing

SurePath Collection vials are to be used for both Liquid Based Cytology (LBC) and HPV testing and can be obtained from the Stores Dept. Requisitions for HPV testing can be obtained from the Specimen Dispatch/Receiving area of the laboratory (Level 2). In the "SPECIFY COLLECTION MEDIUM" section of the requisition, check "SUREPATH VIAL."

### C. Gynecological Specimens (PAP): Collection

### Smears (to be discontinued ASAP)

- Spray smear with cytology fixative IMMEDIATELY (2-3 squirts). DO NOT AIR-DRY SMEARS
- Ensure frosted end of slide is labeled, in **pencil**, with patient's full name and Medicare number and/or unique hospital number (M0#). Slides submitted without two correct identifiers will not be processed. **Please note that ink will wash off in ethanol-based staining solutions and should never be used to label slides.**
- Place the patient's slide(s) in slide mailer.
- Tape the slide mailer shut.
- Deliver to the laboratory with completed Cytology requisition (blue).

### SurePath<sup>™</sup> liquid based Gyn samples

SurePath<sup>™</sup> vials and Rovers Cervex-Brushes are required for collection and may be obtained from Stores. Cytology samples collected in SurePath LBC vials, can be used for both pap and HPV testing.

- Check expiry date on vial. Do not use if past the date on vial.
- Collect the cytology sample using either a broom-like device or combination brush/plastic spatula with detachable heads.
- Follow manufacturer's collection instructions for detachable head device, summarized below.
- Insert Rovers Cervix Brush into cervical opening and while applying gentle pressure rotate clockwise 5 times.
- Drop the detachable head device into the SurePath<sup>™</sup> vial. Place the cap on the vial and tighten.
- Requisitions must have <u>all</u> information fields completed to prevent specimen rejection.
- Specimen vials must be labeled with patient's name and one other unique identifier (date of birth is not considered unique).
   Note: barcoding is not used in Cytology, so it's not necessary to affix the small, coded labels to the requisitions.

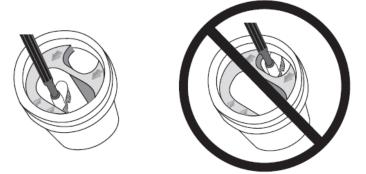
• Deliver vials and requisitions to the lab ASAP, as they have a limited shelf-life and must be transported to Moncton for processing.

### Collection Instructions, adapted from BD SurePath<sup>™</sup> instructions:

**NOTE:** For specimen collection, use either a broom-type device with detachable head (e.g., Rovers Cervex-Brush) or a combination endocervical brush/plastic spatula device with detachable head(s) (e.g., Pap Perfect Spatula\_.

- 1. Obtain a sample from the cervix according to the standard collection procedure.
- Holding the collection vial firmly down on a flat surface, insert the head(s) of the collection device(s) into the larger of the two openings in the BD SurePath<sup>™</sup> Collection Vial using one of three methods:
  - (1) Using the thumb and forefinger of a gloved hand, disconnect the head of the broom-type device from the handle and deposit into the larger of the two vial openings.
  - (2) Insert the head of the broom-type device into the larger of the two vial openings. Rotate the handle of the collection device while gently pulling up to detach the device head from the handle, depositing the device head into the larger of the two vial openings.
  - (3) When using combination brush/spatula collection devices with detachable heads, insert the first device so that the break point is above the top of the light blue vial insert and the head is below the insert. Bend the device back and forth until the device breaks, depositing the collection head into the larger of the two vial openings. Repeat for the second device.

Discard the handle(s) of the sampling device(s). Do not touch the head(s) of the sampling device(s).



**NOTE:** Arrows on top of the light blue vial insert point to where the collection device head(s) should be deposited. **Always deposit collection device head(s) into the large vial opening. DO NOT** place collection device head(s) into the smaller vial opening.

- 3. Cap the vial tightly.
- 4. Send the specimen containing the head(s) of the sampling devices(s), with appropriate requisition, to the laboratory for processing without delay.

### Storage and Disposal

 Store the BD SurePath<sup>™</sup> Collection Vial without cytologic samples at room temperature (15-30°C).

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• Do not use the BD SurePath<sup>™</sup> Collection Vial beyond the expiration date printed on the vial.

### D. Non-Gynecological Specimen Types: Collection

- Brushings Bronchial, Urinary, Gastric and Esophageal
  - Fix specimen in CytoRich<sup>™</sup> Red fixative and deliver to laboratory ASAP. Spray prepared smears with cytology fixative immediately (2-3 squirts)
  - DO NOT AIR-DRY SMEARS
     NOTE: If sending the brush itself, add a small amount of CytoRich™ Red to container to prevent drying. Fluid specimens are preferred to prepared slides.

### • Washings:

- o Bronchial, Urinary, Peritoneal, and Gutter
  - Fix in CytoRich<sup>™</sup> Red and deliver to laboratory ASAP.

### o Gastric and Esophageal

- Fix washing in CytoRich<sup>™</sup> Red and deliver to laboratory ASAP.
- **<u>Cerebrospinal Fluid (CSF)</u>** (1-2 ml of specimen is required)

**NOTE:** This applies to CSF requiring <u>Cytology only</u>. If additional tests are ordered, do not add fixative and refer to **LAB-7-HM-LUM-00002** Body Fluid Collection, within this manual, for proper distribution of tubes

- Fix CSF in CytoRich™ Red and deliver to laboratory ASAP.
   NOTE: equal volume of fixative is sufficient if CSF is submitted in a small tube
- Fine Needle Aspirations (FNA) Breast, thyroid, cysts, lymph nodes, etc.
  - 1. Express aspirated material into (and rinse needle in) CytoRich<sup>™</sup> Red
  - 2. Spray smears prepared on-site with cytology fixative **immediately. NOTE:** Fluid specimens are preferred to prepared slides.
  - **3.** Deliver to laboratory ASAP.

NOTE: Do not send needle to laboratory: specimen will not be processed

## <u>Serous Cavity Fluids ("Body Fluids") - Pleural, Pericardial, Peritoneal and</u> <u>Synovial</u>

- **1.** Fix fluid in CytoRich<sup>™</sup> Red and deliver to laboratory ASAP.
- 2. Sample size exceeding 200 ml is not recommended.
- 3. Sending multiple bottles from the same collection is not recommended.
- 4. Glass evacuated containers will not be accepted.
- 5. Do not add heparin to any fluid.

### o <u>Sputum</u>

- **1.** Specimen is expectorated directly into specimen container.
- 2. Fix sputum in CytoRich<sup>™</sup> Red and deliver to laboratory ASAP.

### o <u>Urine</u>

- **1.** Clearly indicate on requisition whether *voided, catheter* or *cystoscopic*.
- 2. Fix urine in CytoRich<sup>™</sup> Red and deliver to laboratory ASAP.

### • Nipple Discharge

1. Smears made from nipple secretions must be sprayed **immediately** with cytology fixative.

This is a CONTROLLED document. LAB-7-ADM-LUM-00001

2. Ensure frosted end of slide is labeled, in **pencil**, with patient's full name and Medicare number and/or unique hospital number (M0#)

### E. HPV Testing

### • Gynecological

Gynecologic HPV testing is performed at Saint John Regional Hospital (SJRH). Collection devices and vials are the ones used for liquid-based (LBC) paps. Requisitions for HPV testing are available from Specimen Dispatch/Receiving area of the laboratory (Level 2). Specimens that are collected for cervical (pap) screening in SurePath® fixative can be used for reflex HPV testing. An HPV requisition must be filled out in addition to the Cytology requisition when both tests are requested. In the "SPECIFY COLLECTION MEDIUM" section of the requisition, check "SURE PATH VIAL".

All specimens must be labeled with the corresponding tear-off label located on the bottom of the HPV requisition. Labels must contain patient's full name and Medicare number. Requisitions must have <u>all</u> information fields completed to prevent specimen rejection. Deliver samples and requisitions to the laboratory ASAP for referral to Saint John. If both Pap and HPV are requested, referral to Saint John will be done by The Moncton Hospital Cytology Department.

Anal Pap

Anal swabs are not processed by the Microbiology laboratory in Saint John but are sent to the National Medical Laboratory (NML) in Winnipeg.

Specimens are to be collected and placed in SurePath® fixative supplied by the Cytology laboratory upon request. An HPV requisition should be filled out, or if not available, the required HPV request must be clearly written on the Cytology Requisition.

All specimens must be labeled with the corresponding tear-off label located on the bottom of the requisition if using HPV requisition. Labels must contain patient's full name and Medicare number. Requisitions must have <u>all</u> information fields completed to prevent specimen rejection. Deliver samples and requisitions to the laboratory ASAP for referral to Moncton, who will then forward to NML.

### F. Submitting Cytology Specimens

- All requisitions require:
  - Patient's full name
  - Medicare number
  - Unique hospital number (M0#)
  - Date of birth
  - o Collection date and time
  - Type of specimen/anatomic site
  - Location
  - First and last name of the authorized Health Care Provider(s)

- Pertinent clinical history and findings/reason for test
   NOTE: For gynecological (pap) specimens, exact collection site and date of last menstrual period (LMP) must be clearly stated
- For specimens submitted on *slides*, ensure the frosted end of the slide is labeled, in **pencil**, with patient's full name and unique hospital number (M0#, Medicare number). Place slide(s) in mailer and close. **Date of birth will not be accepted as a unique identifier.**
- Ensure specimen bottles are labeled with the patient's full name, Medicare number/unique hospital number (M0#) and specimen type/site.
- Please note that specimens submitted in CytoRich<sup>™</sup> Red cannot be used for any other testing.
- Deliver all cytology specimens to the Specimen Dispatch/Receiving area of the Laboratory (Level 2) ASAP.

### Hematology

### **CBC Specimens**

- CBC specimens must be immediately gently inverted 8-10 times after collection to prevent formation of fibrin strands, platelet clumping or clotted specimens
- Minimum volume for CBC (lavender top, EDTA) vacutainer is 1 ml and 300 ul for capillary specimen
- CBC measured parameters are stable for 24 hours at room temperature, however, the differential may be slightly affected due to slight morphological degeneration
- Because on a rare occasion when there may be a reaction between a patient's blood and the anticoagulant in the lavender top tube, an ACD (yellow top tube) may be used to perform a CBC

### **Turnaround Time for Complete CBC Results**

• A complete CBC is performed with instrumentation that electronically recognizes, counts and sizes WBCs, RBCs and Platelets. Occasionally, the instrument will fail to recognize a certain cell population because of an abnormality with the patient's blood cells. In this case, the technologist will release only the results that are judged to be accurate. The nursing unit will receive a partial CBC result. The rest of the CBC results will only be released after certain protocols are followed, which involves alternate methods of processing the specimen. The turnaround time for the complete CBC result is therefore delayed until accuracy is attained.

### **Mono Testing**

- Turnaround time can vary for MONO testing results.
- Mono testing is routinely batched and done once per shift, however, Stat requests are processed asap

### **Malaria Testing**

• Malaria is extremely time sensitive and samples must be delivered to the Lab immediately after collection

### **Coagulation Specimens**

- Coagulation samples require correct blood to anticoagulant ratio for accurate results. Under filled and overfilled coagulation specimens will not be processed.
- Coagulation specimens must immediately be inverted gently 8-10 times after collection to prevent clotted specimens.
- PT specimens are stable for 24 hours at room temperature.
- APTT specimens are stable for 4 hrs. See exception below.
   Exception- APTT for patients on IV HEPARIN, Order as STAT. APTT must be in Lab within 1 hour of collection. Specimens exceeding one hour will not be processed.
- Specimens with an UNK collection time will not be processed.
- Patient's current anticoagulant therapy should be noted.
- HIT testing- Must be received in laboratory within 1 hour of collection. Order as STAT. These are frozen and sent to TMH.

### Proper Collection Tubes for Body Fluid Cell Counts

- Certain body fluids will clot when they are removed from the body. If a clot forms, cells become trapped within this clot. If a count is attempted on a body fluid that is clotted, the number of enumerated cells will be grossly lower than the true value because the count is performed on the fluid that surrounds the clot.
- To obtain an accurate cell count, it is very important to collect the body fluids in the appropriate container to prevent clotting. The collection tube of choice for a body fluid cell count is the same lavender stoppered tube that is used to collect venous blood for a CBC.
- Immediate gentle mixing should be done once specimen is procured.

### **CSF Specimens**

- CSF specimens are very time sensitive. Deliver to the lab immediately after collection.
- Hematology usually receives tube # 3 (Chemistry # 1, Microbiology # 2, Cytology # 4) or Tube's # 1 and # 4 (Chemistry # 2, Microbiology # 3, Cytology # 4-shared with Hematology)

### **Flow Cytometry Specimens**

- Testing in Flow Cytometry requires a diagnosis. Procedures are varied and labor intensive; therefore a diagnosis helps to decide which tests to perform, cutting costs and time requirements.
- Flow cytometry does not routinely operate during off shifts, weekends or holidays.
- Flow cytometry specimens can include peripheral blood, bone marrow, lymph nodes, tissue, CSF or Body fluids.
- Lymph node and tissue specimens should be received in saline or on gauze saturated with saline to prevent dehydration and be in the lab no later than 1300 hrs.
- Tissue fixed in Formalin (regardless of time in formalin) is not suitable for flow cytometry and will not be processed

### **Bone Marrow Specimens**

### **Booking and Ordering Instructions**

- All bone marrows must be booked in advance with the Hematology department (623-3255)
- Bone marrows will only be booked from Monday to Wednesday
- Special arrangements, outside the Monday to Wednesday time restraints, may be made for STAT/ACUTE cases. MRH Hematology will contact TMH Hematology department at 506-857-5305 for approval.
- Nursing units will order the test "BM" (includes Bone narrow, CBC and Retic testing) in Meditech Order Entry and labels will be generated for all specimens
- CBC and Retic testing must be ordered and reported on the same day of bone marrow collection

### **Bone Marrow Aspirate Collection**

- Once physician collects bone marrow aspirate, it must be divided as follows, into properly labelled vacutainer blood tubes, with 1-2 ml of aspirate placed in each tube:
  - 2 EDTA tubes (lavender top)
  - 1 Sodium Heparin tube (dark green top)
  - Once aspirate is placed in all 3 tubes, gently invert tubes 3-4 times so the anticoagulant in the tube will mix with the aspirate to prevent clotting
  - o Send to Lab asap do not to send in the pneumatic tube system

### Bone Marrow "Bone Biopsy" Collection

- Once physician collects bone biopsy, place the specimen into a properly labelled Tissufix (formalin) container
- If physician is unable to obtain an aspirate specimen, a second bone biopsy should be collected and placed in a properly labelled, sterile, orange top specimen container. Add enough normal saline to the container to cover the bone biopsy.
- Ensure you label the second bone biopsy specimen container with "Normal Saline Added"
- Ensure a properly completed Histopathology requisition accompanies the bone marrow "bone biopsy" specimen(s)
- Send to Lab asap do not to send in the pneumatic tube system

## CSF and BODY FLUID

### CSF and BODY FLUID COLLECTION

Fluids for laboratory exam are collected by needle aspiration from the respective cavities. Specimens should be delivered to the laboratory immediately after collection. To obtain accurate results, it is important to collect the fluid in the appropriate container. Tests such as a cell count will be invalid if the specimen clots before testing is performed.

### 1. <u>CSF</u>

### Tubes or Containers: CSF Fluid

- 1. Disposable Sterile Lumbar Puncture Pre-Numbered kit
  - Tube #1 Chemistry, Immunology
  - Tube # 2 Microbiology
  - Tube # 3 Hematology
  - Tube # 4 Cytology, other tests
- 2. Dry sterile container Additional tests (Refer to Section 2: Laboratory Tests and Instructions)

### Ordering

- Culture is CCSF (lab only)
- All other test mnemonics are found under CSF

### CSF must be delivered to the Laboratory within 20 minutes of collection

**NOTE:** If for any reason the physician alters the sequence of labeling specimens, the requisition should have documentation that the protocol has been altered. For example, the physician may request hematology testing be performed on tubes #1 and #4. The difference between the cell counts on tubes #1 and #4 can be used to differentiate a traumatic tap from an intracranial hemorrhage.

### 2. SEROUS FLUIDS

## Tubes or Containers: Serous fluids (pleural, pericardial, peritoneal) and miscellaneous body fluids

- 1. Lavender top (EDTA) Cell count and differential
- 2. Red top (plain) additional tests
- 3. Green top (lithium heparin with no gel separator) Chemistries
- **4.** Green top (lithium heparin **with no gel separator**) collect anaerobically and transport on ICE Pleural fluid for pH
- 5. Dry sterile container Microbiology and Gram stain
- 6. CytoRich<sup>™</sup> Red preservative Cytology

### Ordering

- Culture for peritoneal and pleural is CMISC, all other fluids are CBF (lab only)
- All other test mnemonics are found under BF

### 3. SYNOVIAL FLUIDS

#### **Tubes or Containers: Synovial fluid**

- 1. Lavender top (EDTA) Cell count and differential
- 2. Lavender top (EDTA)- Crystals
- 3. Red top (plain) additional tests
- 4. Green top (Lithium Heparin with no gel separator) Chemistries
- 5. Dry sterile container Microbiology and Gram stain
- 6. CytoRich<sup>™</sup> Red preservative Cytology

### Ordering

- Culture is CBF (lab only)
- All other test mnemonics are found under BF

### Microbiology

- A. Department of Health (Public Health) Notification
- B. Chlamydia and GC
- C. Instruction for Pipetting Urine into Cobas PCR Media
- D. <u>Pinworm Paddle Specimen Collection</u>
- E. <u>Nose Swab for MRSA Screening</u>
- F. <u>Pertussis (Bordetella) PCR Specimen Collection</u>
- G. <u>Stool Specimens: Instructions for Collection</u>
- H. Urine Samples for Culture: Instructions for Collection
- I. <u>Microbiology Culture, Containers and Mnemonics</u>
- J. Bronchial Lavage Order Information Aid
- K. <u>Guidelines for Transportation of Microbiology Specimens</u>
- L. <u>Stool Samples for Bacteria, Viruses or Parasites: Guidelines for</u>
- Submission
- M. <u>Requisitions</u>

### A. DEPARTMENT OF HEALTH (PUBLIC HEALTH) NOTIFICATION

All communicable diseases are reported according to provincial regulations

- List of communicable diseases is maintained by the provincial office of the Chief Medical Officer of Health and available online <u>Reportable Disease and Events</u>
- MRH Laboratory will report all relevant reportable diseases performed in house accordingly to the Public Health Miramichi Area
- Moncton Area Microbiology department will assume responsibility to notify communicable disease reports to Public Health Miramichi Area as required
- Communicable Disease results from other referral sites will be issued to Miramichi area laboratory for reporting to Public Health Region 7
- Contact information for Public Health Region 7

Public Health Services, 1780 Water St., Suite 300 Miramichi, NB E1N 1B6 Phone during business hours: (506) 778-6104 Pager after business hours: (506) 856-2004 Fax: (506) 778-6756

### B. CHLAMYDIA and GC

Chlamydia and GC is performed at The Moncton Hospital: method is based on NAAT (Nucleic Acid Multiplication Test)

Acceptable specimen types

- **Female** (endocervical or vaginal swabs) use the Cobas PCR Media this contains 2 swabs, one for removing excess mucus prior to collection of the actual sample, and one for swabbing the site.
- **Male** Dry Sterile container for urine samples. Deliver to lab within 24 hours so that the specimen can be poured into the Cobas PCR Media.

### Guidelines for specimen collection and transport

- **Swabs** vaginal & endocervical are collected directly into transport tube. **NOTE:** DO NOT pre-moisten swabs in transport media.
- Swabs are stable at room temperature.

NOTE: Male collection kit no longer exists. Collect urine (see details below).

• Deliver samples with microbiology requisition to MRH laboratory.

### **Collection Procedures for Chlamydia and GC:**

Endocervical/	1. Remove excess mucus from the endocervix or vagina using 1 of the swabs and
Vaginal swab	discard (do not submit this swab for testing).
_	2. Insert the 2 <sup>nd</sup> swab into the endocervix or vagina and rotate the swab for 15 to 30
	seconds to ensure collection of an adequate sample.
	3. Place in transport media and label clearly with patient's name, Medicare number,
	etc.
	4. Ensure the cap is properly in place
Urine Samples	A. Ensure that the patient has not urinated within one hour prior to collection.
_	B. Collect the first 30 to 50 mls i.e. the first part of the stream
	C. Place directly into a preservative free, dry, sterile container. Keep in fridge until
	transported to the lab
	D. Label clearly with the patient's name, ID number, etc.
	E. If sample cannot be delivered to laboratory within 24 hours, see instructions below
Transportation &	Swab specimens can be stored at 2-30° C.
Storage	• Urine samples that are not in the Cobas PCR Media must be stored at 2-8°C and
_	transported with an ice-pack in a cooler within 24 hours to lab.
	• Urine sample that are stored in the Cobas PCR media are stable for 1 year when
	stored between 2-30° C.
Chlamydia trachoma	atis Culture:

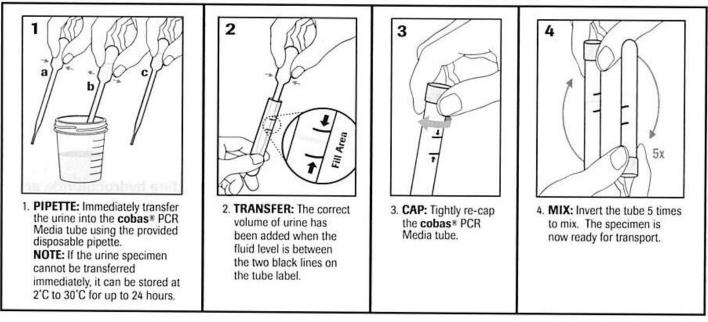
### Chlamydia trachomatis Culture:

Pediatric eye swabs or nasopharyngeal specimens: Special request only contact Microbiology Laboratory. Submit specimen in UTM

### Neisseria gonorrhoeae:

When there is a strong suspicion that the results will be positive submit a swab (routine C&S swab) for culture at the same time – susceptibility testing can then be done on the isolate as well as epidemiological typing if required

### C. INSTRUCTION FOR PIPETTING URINE INTO COBAS PCR MEDIA



### D. PINWORM PADDLE - SPECIMEN COLLECTION

Obtain the collection kit from the laboratory.

### **Directions for Use:**

**NOTE:** the best time to collect this specimen is early morning <u>before</u> arising and emptying the bowels Remove cap in which is inserted a clear plastic paddle one side of which is coated with a non-toxic, mildly adhesive material marker "Sticky Side". Do NOT touch this with the fingers.

Press the sticky surface against the perianal skin (i.e. around the buttocks) using moderate pressure. Screw the paddle/cap back into the container and label with the patient's name, Medicare #, date and time of collection. Send to laboratory with a completed requisition.

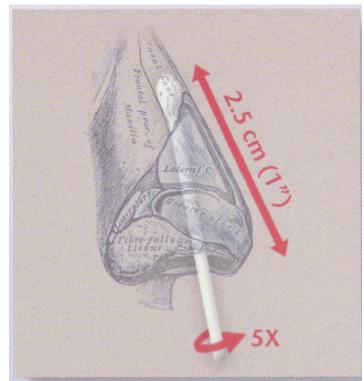
### E. NOSE SWAB FOR MRSA SCREENING

#### **Collection Swab:**

Blue capped swab containing Stuarts liquid transport Medium. The bottom of the container contains a sponge that is moistened with the transport medium.

### **Collection Procedure:**

- 1. Moisten swab by inserting into sponge of transport container.
- 2. Carefully insert swab 1 inch into patient's nostril.
- 3. Roll the swab 5X.
- 4. Insert the same swab into the second nostril.
- 5. Return swab to its container, label with the patient's name, Medicare # and date and time of collection.
- 6. Send to laboratory with a completed requisition.



### F. PERTUSSIS (BORDETELLA) PCR/CULTURE - SPECIMEN COLLECTION

Material	Submit nasopharyngeal swab in UTM		
Procedure	<ol> <li>Clean off any obvious mucus from the patient's nostrils.</li> <li>Immobilize the patient's head.</li> <li>Gently insert the swab into the nostril until it reaches the posterior nasopharynx.</li> <li>Leave the swab in place for up to 30 seconds or until a coughing spell is induced.</li> <li>Remove the swab and re-place into the tube- if the patient is cooperative the same swab can be placed in the other nostril.</li> <li>Label the tube and send to laboratory ASAP along with a completed requisition.</li> </ol>		

### G. STOOL SPECIMENS: INSTRUCTIONS FOR THE COLLECTION OF

See Laboratory User Manual – <u>Collection instructions</u>

### H. URINE SAMPLES FOR CULTURE: INSTRUCTIONS FOR COLLECTION

See Laboratory User Manual – <u>Collection instructions</u>

#### MICROBIOLOGY CULTURE, CONTAINERS and MNEMONIC'S Ι.

Microbiology Procedure	Mnemonic	Container
Abscess Culture (may also request TB/AFB)	CAB	C&S swab/dry sterile
Anaerobic Culture	CMISCAN	Anaerobic swab
AFB Culture       }       - see Mycobacteria Culture         Acid Fast Bacilli       }	TBCULT (St John)	Dry sterile
Bartholin Abscess	CGEN	C&S swab
Beta Strep - when vaginal swab order when throat swab order	CGBS CT	C&S swab
Biopsy/Surgical/OR Culture e.g. lymph node, tissue	CBX*includes aerobic and anaerobic culture	Dry sterile - may have sterile saline added
Blood Culture * see additional information sheet LAB-1M-MIC-19-1-2-1 <u>if only one</u> bottle received add note in comments: <f5> MAB - Aerobic bottle Only <f5> MANB - Anaerobic bottle Only <f5> MPB – Pediatric bottle only received</f5></f5></f5>	CB CBP CBY for ?yeast CBE - if Dx is endocarditis	Blood Culture bottles Paeds bottle only
Body Fluid Culture (note if swab or fluid received) used for synovial/joint, pericardial, and ascites fluids. * dialysis bag received → send to GDM for processing small volume → Not ordered in the system. (go to result entry and add note F5 MDIALYSIS)	CBF	Usually dry sterile
Peritoneal and pleural fluids ** if received in Blood Culture Bottles Order	CMISC CBBF	
Bone <u>NOT</u> from bone bank	CMISC	Dry sterile
Bone Bank - see separate instructions		
Bordetella PCR	BORDPCR	UTM media- (pink liquid)
Bronchial Washing, Aspirate etc., routine culture	CRESP	Dry sterile
Viral PCR panel TB Pneumocystis	RESPVPCR TBCULT (St John) PNEUMSM	UTM Dry sterile Dry sterile
Burn Culture (skin specimens from burn patients)	CBURN	C&S swab
Bug for Identification (Tick, Louse, Scabies, etc.) If tick, please indicate site in comments.	BUGID	Dry container
Candida culture see Yeast culture		
Catheter Tip Culture - may also be called a line tip	ССАТН	Dry sterile C& S swab
Catheter Site Culture (source is swab of catheter site)	CMISC	C&S swab

	1	
Chlamydia trachomatis 1. <u>PCR</u> - cervix, vaginal or urine specimen	CHLAMGC(F9 lookup site) CHLAMGCUR	COBAS swab Dry sterile container
<ol> <li><u>Culture</u> - usually neonatal nasopharyngeal or eye Special request only – contact Microbiology</li> </ol>	RS	UTM
Clostridium difficile Antigen and Toxin	CDIFF	Dry sterile or Enteric Transport
CMV Culture	CVCMV	Viral transport or dry sterile
Colostomy/Colonic Fluid if culture (C&S) order	CS	Dry sterile or Enteric (pink) transport media
Cryptococcal Latex (Antigen) CSF or clotted blood	CRYPL	Dry sterile / SST 5 ml
CSF Culture	CCSF	Dry sterile
CSF Viral Culture (Dr. must specify suspect virus)	Enter by virus	Dry sterile
Duodenal Aspirate for Giardia	ZOP	Dry sterile
Ear Culture – swab only, see ENT Culture for ear fluid	CEAR	C&S swab
ENT Culture – includes antral washings, ethmoid/frontal /maxillary sinuses, middle ear fluid parotid submandibular/ sublingual glands	CENT	C&S swab or dry sterile
	GS	C&S swab
*mouth, gum, tongue swabs: order <b>Endocervical –</b> for GC culture or CHLAM/GC DNA (see Chlamydia trachomatis above for ordering DNA)	CGC	C&S swab
Endotracheal Suction (ETT)		
Routine culture order	CRESP	Dry sterile
Viral PCR panel Endometrial Culture - swab (if tissue order CBX)	RESPVPCR CGEN	C&S swab
Episiotomy Culture	CGEN	C&S swab
Eye Culture – includes aqueous humor, corneal	CEYE	C&S swab
scraping/swab, eye lid, conjunctiva, vitreous humour		
Eye for GC	CGC	C&S swab
Fine Needle Aspirate (source = fluid)	CMISC	Dry Sterile
Foreskin culture	CGEN	C&S swab
Fungal Culture- includes direct smear/ KOH/ Calcofluor White	CFUN	Dry sterile or small dish
Gastric Aspirate (source GA)	CMISC	Dry sterile
<b>Gram Smear</b> – this is automatically included in appropriate cultures, use this <b>only</b> when an actual smear is sent or for mouth gum and tongue swabs See also Vaginal Smear	GS	Glass slide
<b>Group B Strep Culture</b> only done on Vaginal and Vag/Rectal swabs, if requested on other specimens order routine culture and put note in comments	CGBS	C&S swab
<b>GC Culture</b> (Gonorrhea culture) most commonly done on cervical (endocervical) swabs and urethral swabs	CGC	C&S swab

GC DNA, (one swab for both GC & Chlamydia) Genital culture – any specimen from genital tract except	CHLAMGCUR CHLAMGC (F9 lookup site)	Dry sterile if urine sample COBAS swab
those for GC, [CGC], Group B [CGBS] & Vaginal swabs [VS]	CGEN	C&S swab
Gum swab – routine is to look for yeast only	GS	C&S swab
Herpes Virus Culture (Herpes simplex) note: sometimes order is for Herpes zoster - order CVVZ (Varicella zoster) – includes Herpes & Varicella	HERPESPCR	UTM
H. Pylori Antigen (stool)	HPYLAG (send room temp to TMH)	Dry sterile container
IUD (Intra Uterine Device)	CGEN	Dry Sterile
Labia culture	CGEN	C&S swab
Legionella Culture -broncho-aveolar lavage (BAL) -bronchial washings (BW) - endotracheal (ET) -sputum (SPT)	CLEGION	Dry sterile container
Legionella Antigen – urine only	LEGAG	Dry sterile
Liver Biopsy       -CMV/ENTERO/ADENO/HERPES CULT         /Abscess       -Aerobic and Anaerobic culture         -TB       - Fungus culture	CMISCAN TBCULT (St John) CFUN	
Lochia swab	CGEN	C&S swab
<b>Miscellaneous Culture</b> - this is a catch-all for specimens <b>not</b> fitting into any of the other cultures	CMISC - if ANO <sub>2</sub> required CMISCAN	C&S swab or dry sterile
Miscellaneous Screen – screen for other than MRSA, VRE	CSTUDY	C&S Swab
Mouth Swab - routine is to look for yeast only (monilia)	GS	C&S swab
Monilia Culture see YEAST (usually vaginal swab - order VS)		
MRSA screen (usually nose/perineum)	MRSA	C&S swab
<b>Mycobacteria Culture -</b> same as AFB, TB reference lab will automatically do AFB (ZN) smears	TBCULT (send to St John)	Dry sterile For Blood Cult use special TB bottle
Mycoplasma hominis Culture	CUMYC	UTM
(this is for urogenital mycoplasma) Special request for urine Mycoplasma – consult Microbiologist	RS	Dry sterile
<b>Neonatal Surveillance Swabs</b> - throat, ear, umbilical rectal or axilla taken within first 48 hours	CNNS	C&S swab
Nose Culture	CN	C&S swab
Ova & Parasites	OP	SAF Fixative
Pertussis PCR	BORDPCR	UTM

Penis/ Prostatic Secretions routine C&S	CGEN	C&S swab or Dry sterile
Pharmacy Fluids (Sterility check) - note lot # and type	CPHARM	Blood culture bottle
Pharmacy Ointments (Sterility check)	CPHARMISC	Dry Sterile
Placenta routine C&S	CGEN	C&S swab
Pin Worm (Scotch Tape or Paddle)	PINWORM	Scotch tape – or paddle
Pneumocystis	PNEUMSM	
<b>Respiratory Culture</b> includes sputum, bronchial washings, etc., endotracheal tips (ETT) <b>Note:</b> see below for RSV	CRESP	Dry sterile or Suction tube
<b>Respiratory Viral PCR</b> - for any respiratory specimen requesting viral culture a standard protocol is set up. Culture replaced by PCR testing.	RESPVPCR	Viral Transport medium
Rota Virus Antigen – stool sample	ROTA	Dry sterile
RSV	RSVPCR	UTM
Scrapings Skin	CFUN	Dry sterile or small petri dish
Scabies (use SM (smear) as the source)	BUGID	Glass slide
Seminal Fluid Culture Scrotum	CGEN	C&S swab or dry sterile
Small Bowel Aspirate for Bacterial Overgrowth	CMISC source SBA	Dry sterile
Sputum Culture – routine C&S	CRESP	Dry sterile
<b>Stool Culture</b> - includes stool, rectal, colostomy and Colonic fluid	CS	Enteric Transport
<ul> <li>if yeast or fungus requested order (do <u>NOT</u> order CS )</li> </ul>	CSY	
- if Gram or WBCs requested also order	MS	Dry sterile
Stool Viral Culture	NORPCR	Dry sterile
Stool - White Cells (WBCs)	MS	Dry sterile (very fresh)
<b>TB Culture</b> (See Mycobacteria Culture)	TBCULT (SJ)	Dry sterile / C&S swab
<ul> <li>Throat Culture (pharynx)</li> <li>for all routine throat swabs looking for Strep</li> <li>when looking for all pathogens or specials, e.g.,</li> </ul>	СТ	Throat swab
<ul> <li>?Diphtheria Note: this test is rarely required</li> <li>Gram smear or ?yeast ?fungus</li> <li>Viral PCR panel</li> </ul>	CTS TY RESPVPCR	C&S swab C&S swab UTM
Thrush see yeast usually throat swab order	TY	C&S swab
Tongue routine is to look for yeast	GS	C&S swab
<b>Tips (</b> for endotracheal (ETT) see CRESP;) for central lines, vascular catheters,small fine tips see CATH tips	CCATH	Dry sterile
Urethral Culture	CGEN	C&S swab
<b>Urine Culture</b> *see additional information sheet if yeast requested (do NOT order CU also) *urine could be for a variety of other tests, e.g. viral culture, mycobacteria, Legionella antigen, CHLAM/GC, etc.	UCULT CUY (yeast)	Dry sterile

Urogenital Mycoplasma	CUMYC	UTM
<ul> <li>Vaginal culture: check diagnosis and patient's age</li> <li>1. Vaginitis/vag discharge, Trich, Monilia,Yeast: order</li> <li>2. Pregnancy (if symptoms as above order VS as well): order</li> <li>3. Post hysterectomy or ≤13years: order</li> <li>if ≤ 13years the source is VAGP (Vaginal –prepubertal)</li> </ul>	VS CGBS CGEN	C&S swab
Vaginal Vault (order VS also – NP Gram)	CGEN	C&S swab
<b>Specific Viral Cultures:</b> Can be ordered on swabs of throat, nose, vesicles; urine; CSF See dispatch manual for a full list of viral cultures.	HERPESPCR EVPCR ADVPCR	UTM
VRE Screen (usually rectal swab/stool/perineum)	VRE	C&S swab
Vulva Culture	CGEN	C&S swab
<ul> <li>Yeast Culture - order according to specimen:</li> <li>throat swab</li> <li>urine specimen (do NOT order CU as well)</li> <li>blood culture (do NOT order CB as well)</li> <li>vaginal swab</li> <li>gum, mouth or tongue</li> <li>NOTE: *other specimens may require fungal culture – check with Micro</li> </ul>	TY CUY CBY VS GS	Various depending on specimen type – dry sterile C&S swab or blood culture bottles

### J. BRONCHIAL LAVAGE ORDER INFORMATION AID

Test Ordered	Mnemonic	Perform	Specimen	Comments	Required Volume
		Site	Container	Comments	•
PCJ (Pneumocystis Jiroveci)	"PNEUMSM"	ТМН	Orange top container		5 mls if possible 0.5 mls minimum
Coxackie B virus or Enterovirus Culture	"EVPCR"	ТМН	Orange top container		2 mls
Varicella Zoster Culture	"VZVPCR"	ТМН	Orange top container		
Influenza A&B	"INFLUSCR"	ТМН	Orange top container		
Respiratory Viral PCR panel	"RESPVPCR"	ТМН	Orange top container		
CMV Culture	'CVCMV"	GDH	Orange top container		
Herpes Simplex Culture	"HERPESPCR"	ТМН	Orange top container		
Herpes PCR	"HERPESPCR"	ТМН	Orange top container		
Cultures	Mnemonic	Perform Site	Specimen Container	Comments	Required Volume
Respiratory Culture (C&S)	"CRESP"	ТМН	Orange top container		10 drops, 1 container for both
Fungal Culture	"CFUN"	ТМН	Orange top container		10 drops, 1 container for both
Galactomannan	"GALACTO"	ТМН	Orange top container	Looking for "Galacto"	
RSV	"RSVPCR"	ТМН	Orange top container		1⁄2 ml
Nocardia	"CFUN"	ТМН	Orange top container	Looking for Nocardia	
Legionella	"CLEGION"	ТМН	Orange top container	Looking for Legionella	Sent to GDH by TMH
Other	Mnemonic	Perform Site	Specimen Container	Comments	Required Volume
TB or AFB	"TBCULT"	SJRH	Orange top Container	If Dr.writes m.xenopi it is a comment for TB lab @ SJRH. Write on req.	10 mls at least 2mls. <u>Requires separate</u> <u>sample</u>
Actinomyces	"CANAER"	тмн	Anaerobic transport media	Looking for actinomyces	
NTM or NTB	"TBCULT"	SJRH	Orange top Container		

### K. GUIDELINES FOR TRANSPORT OF MICROBIOLOGY SPECIMEN'S

		Specimen	Tests	Container	Storage
ice pack	Urine	Clean Catch Mid-Stream Catheter etc.	Bacterial Culture (C&S) UCULT	Uriswab	Refrigerate 4°C within 1 hour of collection. Ship in cooler but do not place directly on ice.
		First Void*	Chlamydia/GC DNA CHLAMGCUR	Cobas PCR Media	*First Void- Collect first 15 ml to 30 ml of voided urine. (contains epithelial and other cell types). Transfer to Cobas PCR media and ship at Room temperature.
<u>TH</u> an		Early Morning	TB/ Mycobacteria TBCULT	Dry Sterile	Refrigerate 4°C within 1 hour of collection. Ship in cooler with ice pack.
IM R		Sputum	C&S, TB/ Mycobacteria CRESP, TBCULT	Dry Sterile	Refrigerate – send with ice pack
be packed <u>WITH</u>	Stool		C. Difficile Toxin- <b>CDIFF</b> Calprotectin - <b>CALPRO</b> Viral Culture- <b>NORPCR</b> Polys – WBC- <b>MS/FWBC</b>	Dry Sterile	Refrigerate – send with ice pack
nust	Nasopharyngeal Aspirate/Swab Nasopharyngeal Swab		RSV Antigen - RSVPCR	UTM	Refrigerate – send with ice pack keep upright
ns r			Pertussis - BORDPCR	UTM	Refrigerate – send with ice pack
l specimens must		Genital	Chlamydia/GC DNA CHLAMGC(F9 lookup site) Note: Ordered according to collection site.	Special Transport Media (Cobas PCR Media)	Store and ship at room temperature
AII		Genital	Urogenital Mycoplasma	UTM	Refrigerate – send with ice pack
	Var	ious Samples	Viral Culture	Swab – UTM Fluid - Dry Sterile	Refrigerate – send with ice pack and keep upright
	S	ynovial fluid	Crystals	Lavender tube (EDTA)	Refrigerate – send with ice pack
	CSF	& Body Fluids	Viral culture (Herpes, Entero, <b>TB</b> Cult- send to St. John)	Fluid - Dry Sterile	Refrigerate – send with ice pack and keep upright

	Specimen	Tests	Container	Storage	
<u>)UT</u> an ice pack.	CSF & Body Fluids	C&S	Fluid - Dry Sterile	Incubate at 35° C and ship at Room Temperature	
	Blood Cultures	C&S	Aerobic, Anaerobic or pediatric bottle	Store and ship at Room Temperature. <b>NOTE:</b> Do <b>NOT</b> allow to cool as this may result in the death of some fastidious bacteria.	
ITHC	Genital	Vaginal Swabs - VS	C&S Swab (Blue Top)	Transport at Room Temperature	
packed <u>WITHOUT</u>	Stool	Culture C&S- <b>CS</b>	Enteric Pathogen Transport (Pink Fluid)	- Transport at Room	
		H. Pylori	Dry sterile	Temperature	
it be		Ova & Parasites- OP	SAF Fixative		
must		Routine Throat Culture-CT	C&S Swab (Blue Top)	Transport at Room	
ens	Throat Swabs	Rapid Group A Strept Antigen(GAS) - <b>GAS</b>	Liquid Transport Swab	Temperature	
specimens	Swabs – Wounds, etc.	Bacteria Culture C&S- CMISC	C&S Swab (Blue Top)	Transport at Room Temperature	
All sp	Pre-Inoculated Sent for further work-up and/or confirmation at referral laboratory		Secure all caps/lids with Parafilm® Transport at Room Temperature <b>Do not allow to freeze</b>		

### L. STOOL SAMPLES FOR BACTERIA, VIRUSES or PARASITES: GUIDELINES FOR SUBMISSION

Agents	Order	Notes	Container / Transport
	Rotavirus ( <b>ROTA</b> )	Direct Antigen test	<ul> <li>Dry Sterile container</li> <li>Refrigerate specimens and transport ASAP</li> </ul>
Viruses	PCR Rotavirus and Sapovirus		Dry Sterile container – refrigerate specimens ASAP and transport at 4°C
Bacteria	C&S ( <b>CS</b> )	Routinely look for <i>Salmonella, Shigella,</i> <i>E. coli</i> 0157, <i>Campylobacter</i> and <i>Yersinia</i> – other pathogens must be clearly identified on the request	<ul> <li><u>Enteric Pathogen Transport (liquid</u> <u>transport)</u></li> <li>Transport at room temperature within 24 hours</li> </ul>
	C. difficile Toxin ( <b>CDIFF</b> )	Formed stool NOT processed	<ul><li>Dry Sterile container</li><li>Refrigerate and send ASAP</li></ul>
Parasite	Ova & Parasites ( <b>OP</b> )	Screening for intestinal parasite only	<ul> <li><u>SAF Fixative – fill to line &amp; mix</u> <u>well</u></li> <li>Transport at room temperature within 24 hours</li> </ul>

**Specimen Labels:** All specimens **must be labeled with two identifiers** – the Patient's Name & Medicare # (or unique hospital number) these should also be on the requisitions.

### **Notes on Outbreak Situations**

- <u>Do not submit formed stool</u> unformed samples i.e., specimens which assume the shape of the container are appropriate.
- NORPCR is ordered to detect the presence of Norwalk virus. if 3 or more are positive further testing will be discontinued as evidence of an outbreak has been established
- Samples for Bacterial and Viral culture (include Rotavirus antigen) should also be submitted at the same time.
- Parasites are generally <u>not implicated in rapid onset outbreaks</u>.

### M. <u>Requisitions</u>

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#### **Submitting Microbiology Specimens**

- All requisitions require:
- Patient's full name
- Medicare number and/or hospital number (M0#)
- o Date of birth
- o Collection date and time
- Type of specimen/anatomic site
- Location
- First and last name of the authorized Health Care Provider(s)
- Pertinent clinical history and findings/reason for test
- o Specimen source
- Current antibiotics
- Ensure specimen containers/swabs are labeled with the patient's full name, Medicare number/unique hospital number (M0#) and specimen type/site
- Deliver all microbiology specimens to the Specimen Dispatch/Receiving area of the Laboratory (Level 2) ASAP

### Phlebotomy

Refer to <u>Regional Laboratory Phlebotomy Manual</u> located on Skyline/Departments and Programs /Laboratory Services

### **NOTE: Special Procedures**

Test	Notes
Venous Blood Gas	<ol> <li>If using a butterfly needle for a venous gas, the gas is the last tube collected in the order of draw         NOTE: If only collecting a venous gas by butterfly needle, take a discard tube first to expel air in the tubing     </li> <li>Collect in lithium heparin</li> <li>Mix 8-10 times</li> <li>Send to Laboratory <u>on ice</u> ASAP</li> </ol>
Alcohol	<ol> <li>Do not use an alcohol Swab to clean the puncture site, use Bridine Solution (or other non-alcohol sanitizers)</li> <li>Send to Laboratory immediately</li> </ol>
Lactate	<ol> <li>Collected in lithium heparin tube, mix well and place immediately <u>on ice</u>.</li> <li>Venous and arterial blood may be used for lactate testing, however, they must be ordered as LACV for lactate, venous or LACA for lactate, arterial.</li> <li>Arterial blood draws can be used for testing.</li> <li><u>Do not</u> use a tourniquet.</li> <li>Deliver to laboratory immediately for testing within 15 min of drawing the blood.</li> </ol>
Ionized Calcium	<ol> <li>Collected in SST tube, centrifuge within 4 hours.</li> <li>Tube must be filled and not opened until analysis.</li> <li>When drawing ionized calcium, the patient should not make a fist as normally done with venipuncture collections.</li> <li>Release tourniquet within one minute or before removing the needle, whichever comes first.</li> </ol>

### **Collection Instructions : Table of Contents**

Collection Instructions	Language	
Diet/Drug Restrictions prior to 24 Hour Urine Collection (Hyperlink to Skyline <b>HHN-0840</b> )	English	French
Fecal Fat – 72 Hours (hyperlink to Skyline <b>Form#475</b> )	English	French
Occult Blood (Link to Skyline form HHN-0752)	English	French
Instructions for Patients to Collect Urine Samples for Culture <b>HHN-0822</b>	English	French
Instructions for Collection of STOOL Specimens for Microbiology (hyperlink to Skyline <b>HHN-0448</b> )	English	French
Instructions for 24 Hour Urine Collection (Hyperlink to Skyline <b>HHN-0858</b> )	<u>English</u>	<u>French</u>
Instructions for Urine Collection: Cytology	<u>English</u>	<u>French</u>
Instructions for Sputum Collection: Cytology	English	French
Instructions for Sputum Collection: Routine Culture, Mycobacterial (TB) Culture and Fungal Culture (hyperlink to Skyline <b>HHN-0452</b> )	English	French
Instructions for Semen Analysis (hyperlink to Skyline <b>30337</b> )	English	French
Preparing for a Fasting Test	English	French
Glucose Tolerance Test / Gestational Diabetes Screen Waiting Instructions (hyperlink to Skyline Form# HHN-0872)	<u>English</u>	French

### **INSTRUCTIONS FOR 24 HOUR URINE COLLECTION**

- If container contains a preservative, avoid contact with or spillage of preservative. *Keep it away from children.*
- It is most appropriate to commence the collection on arising in the morning (e.g. 0700 hours). At this time, void and *discard* this specimen. Pool all the subsequent specimens in the container, *including* the first voiding on arising (at 0700 hours) 24 hours later.
- Keep container in a cool place during collection period.
- Return the collection to the Laboratory at your earliest convenience.
- These specimens are not processed on weekends. Therefore, collect during periods Sunday through Thursday with appropriate modifications for holidays.
- Label container with name and second identifier; **specimen will be rejected if not properly labelled**

Please be sure the following information is on the specimen bottle or jug:

- Patient Name
- Medicare Number
- Collection Start date and time
- Collection Stop date and time

### DIRECTIVES POUR LE PRÉLÈVEMENT D'ÉCHANTILLONS D'URINE SUR 24 HEURES

- Si le récipient contient un agent de conservation, évitez de le toucher ou de le déverser. *Gardez-le hors de la portée des enfants.*
- Il est particulièrement approprié de commencer le prélèvement dès le lever le matin (p. ex. vers 7 h). Videz votre vessie et *jetez* cet échantillon. Conservez tous les autres échantillons suivants dans le récipient, *y compris* le premier débit urinaire du lendemain matin (à 7 h), soit 24 heures plus tard.
- Placez le récipient dans un lieu frais durant la période de prélèvement.
- Rapportez l'urine prélevée au laboratoire dans les plus brefs délais.
- Le laboratoire ne traite pas les échantillons les fins de semaine. Il est donc important de faire les prélèvements du dimanche au jeudi et d'apporter les modifications appropriées en fonction des congés fériés.
- Sur l'étiquette du récipient, inscrivez le nom et le second identificateur; l'échantillon sera rejeté s'il n'est pas étiqueté correctement.

Assurez-vous que les renseignements suivants figurent sur le flacon ou la cruche d'échantillons :

- Nom du patient
- No d'assurance-maladie :
- Date et heure du commencement du prélèvement
- Date et heure de la fin du prélèvement

### INSTRUCTIONS FOR URINE COLLECTION FOR CYTOLOGY

- **Do not** collect the first morning urine. Any other time of day is acceptable.
- Collect urine (same amount as fixative) directly into a sterile bottle containing pink liquid, bearing a bright pink label which reads "CYTOLOGY FIXATIVE POISON"; screw cap on tightly.
- Label the bottle with your full name, Medicare number, date and time of urine collection.
- Bring the specimen to the hospital as soon as possible. If you were given a blue requisition form by your doctor, bring it with your sample.
- If you are instructed to collect a sample for more than one day, collect day 2 and 3 samples in the same way as the first one. Only collect one sample each day. Specimens do not need to be refrigerated. All three specimens can be brought to the laboratory at the same time, as soon as possible after the final sample has been collected.

### DIRECTIVES POUR LE PRÉLÈVEMENT D'ÉCHANTILLONS D'URINE POUR CYTOLOGIE

- **Ne conservez pas** le premier débit urinaire du matin. Le débit urinaire de n'importe quelle autre période de la journée est acceptable.
- Prélevez l'urine (même quantité que le fixatif) directement dans un flacon stérile contenant du liquide rose et dont l'étiquette rose vif indique « CYTOLOGY FIXATIVE – POISON » (Fixatif de cytologie – Toxique). Vissez le couvercle hermétiquement.
- Sur l'étiquette du flacon, inscrivez votre **nom complet**, votre **numéro d'assurance-maladie** ainsi que la **date** et l'**heure** du prélèvement de l'urine.
- Apportez l'échantillon à l'hôpital dans les plus brefs délais. Si votre médecin vous a donné un formulaire de demande bleu, apportez-le avec votre échantillon.
- Si l'on vous a demandé de prélever un échantillon durant plusieurs jours, prélevez vos échantillons d'urine des 2<sup>e</sup> et 3<sup>e</sup> journées de la même manière que pour la première journée. Prélevez un seul échantillon par jour. Il n'est pas nécessaire de réfrigérer les échantillons. Vous pouvez apporter les trois échantillons au laboratoire en même temps, dès que possible après le prélèvement du dernier échantillon.

#### CYTOLOGY SPUTUM COLLECTION INSTRUCTIONS

- FIRST thing in the morning, before eating, cough DEEPLY and expectorate the sputum (mucus) directly into a sterile bottle containing pink liquid, bearing a bright pink label which reads "CYTOLOGY FIXATIVE – POISON"; screw cap on tightly.
- Label the bottle with your full name, Medicare number, date, and time of sputum collection.
- Bring the specimen to the hospital as soon as possible. If you were given a blue requisition form by your doctor, bring it with your sample.
- If you are instructed to collect a sample for more than one day, collect day 2 and 3 samples in the same way as the first one. Only collect one sample each day. Specimens do not need to be refrigerated. All three specimens can be brought to the laboratory at the same time, as soon as possible after the final sample has been collected.

#### DIRECTIVES POUR LE PRÉLÈVEMENT D'EXPECTORATIONS POUR CYTOLOGIE

- DÈS VOTRE LEVER le matin, avant de manger, toussez FORTEMENT et crachez les expectorations (mucus) directement dans un flacon stérile contenant un liquide rose et dont l'étiquette rose vif indique « CYTOLOGY FIXATIVE – POISON » (Fixatif de cytologie – Toxique); vissez le couvercle hermétiquement.
- Sur l'étiquette du flacon, inscrivez votre **nom complet**, votre **numéro d'assurance-maladie**, la **date** et l'**heure** du prélèvement des expectorations.
- Apportez l'échantillon à l'hôpital dans les plus brefs délais. Si votre médecin vous a donné un formulaire de demande bleu, apportez-le avec votre échantillon.
- Si l'on vous a demandé de prélever un échantillon durant plusieurs jours, prélevez vos échantillons d'expectorations des 2<sup>e</sup> et 3<sup>e</sup> journées de la même manière que pour la première journée. Prélevez un seul échantillon par jour. Il n'est pas nécessaire de réfrigérer les échantillons. Vous pouvez apporter les trois échantillons au laboratoire en même temps, dès que possible après le prélèvement du dernier échantillon.

## Preparing for a Fasting Test

If your Physician or Nurse Practitioner orders a fasting blood test, you should not have anything to eat or drink (except small amount of water) for 10-14 hours (depending on the test).

## FAQs:

- <u>Can I drink water</u>?
   Answer: Yes, you can drink a small amount of water.
- 2. <u>Can I drink coffee or tea</u>? Answer: No you can't.
- 3. <u>Can I drink juice</u>? Answer: No you can't.
- 4. <u>Can I take my medication</u>? Answer: You should take any prescription drugs, unless your Physician asked you to not take them.
- 5. <u>Can I chew gum</u>? Answer: No you can't.
- 6. <u>Can I smoke</u>? Answer: No you can't.
- 7. <u>Can I do my exercise</u>?
  - Answer: No you can't. Exercise can affect some test results.

# Se préparer à un test à jeun

Si votre médecin ou votre infirmière praticienne vous a demandé de subir un test à jeun, vous devez éviter de manger et de boire (sauf une petite quantité d'eau) pendant les 10 à 14 heures précédentes (selon le type de test).

# <u>FAQ :</u>

- Puis-je boire de l'eau? Réponse : Oui, vous pouvez boire une petite quantité d'eau.
- 2. Puis-je boire du café ou du thé? Réponse : Non, vous ne le pouvez pas.
- Puis-je boire du jus? Réponse : Non, vous ne le pouvez pas.
- 4. Puis-je prendre mes médicaments? Réponse : Vous devriez prendre tous vos médicaments sous ordonnance que vous prenez habituellement, à moins d'avis contraire de votre médecin.
- 5. Puis-je mâcher de la gomme? Réponse : Non, vous ne le pouvez pas.
- 6. Puis-je fumer?
  - Réponse : Non, vous ne le pouvez pas.
- 7. Puis-je faire de l'exercice? Réponse : Non, vous ne le pouvez pas. L'exercice peut fausser les résultats de certains tests.

# TRANSFUSION MEDICINE

- A <u>Transfusion Medicine Specimens</u>
- B <u>Turnaround Time for Transfusion Medicine Testing</u>
- C Signing out Blood Products
- D General Rules for Transfusion
- E Investigation of Transfusion Reactions
- F <u>Transfusion Reaction Information</u>
- G Use of uncrossmatched blood
- H Blood Product Information
- I Request for IGIV and SCIG

#### **Blood Products Administration Resources on Skyline**

To access, either:

- 1. Click this link: <u>Blood Products Administration</u> Or/
- 2. from the Skyline Home page, select "Tools & Resources" ► "Patient Care" ► "Blood Products Administration"

## A. Transfusion Medicine Specimens

- Specimens must be labeled, at the patient's bedside, with the full name of the patient and one unique identifier (e.g. health card number or hospital unique number)
- Both Transfusion Medicine specimens and the requisition must bear the signature or Meditech mnemonic of the person drawing the specimen. Specimens <u>will not</u> be processed if the proper signatures are not in place.
- The initials/mnemonic on the tube and the signature on the requisition indicate that the person drawing the blood has verified that the patient information on the tube and the requisition exactly matches the information on the armband and therefore the patient has been correctly identified.
  - Blood will be held for 24 hours post-surgery unless the laboratory receives a request to hold it longer.
  - Orders for units to be held require a new specimen collected every 96 hours if the patient is receiving blood products.

# B. Turnaround Times (TAT) for Transfusion Medicine Testing

Test	Indication	STAT	Routine	
Crossmatch		1 hour	<5 hours	
Group & Screen		1 hour	<5 hours	
Direct Antiglobulin Test		1 hour	<5 hours	
Transfusion Reaction Investigation	< 1 hour (Gram and culture to follow as specimen referred to TMH)			

Test	Indication	STAT	Routine
Cord Plood Workup	RhIg Eligibility	1 hour	24 hours
Cord Blood Workup	Suspect HDN	1 hour	<2 hours
Kleihauer-Betke	RhIg dosing	Not normally a stat test	24 hours
	FMH suspected	however it may require completion within 3 hours	5 hours
Prenatal Group & Screen		1.5 hours	<36 hours
Antibody titer		n/a	<72 hours
Cold Agglutinin Testing		3 hours	<24 hours

#### **Blood Product Preparation**

Test	Indication	STAT	Routine	
Thaw Plasma		Within 30 min of request to transfuse		
Cryoprecipitate Thaw and Pool		Within 30 min of request to transfuse		

# C. Signing out Blood and or Blood Components

- 1. On completion of crossmatches the unit(s) will appear as "READY" in the PCI module.
- 2. The Issue/Transfuse form will be issued by the laboratory when the blood is released.
- Blood will be issued by the laboratory to physicians, nurse practitioners, licensed practical nurses(LPN) or nurses only. The patient's name, hospital number, blood group and blood unit number must be verified by both the receiver and the issuer before being released by the laboratory.
- 4. Blood Products will be issued in a brown paper bag for transport within the hospital

# D. General Rules for Transfusion

- 1. Orders for transfusion of blood and blood products is limited to Physicians and Nurse Practitioners (NP) only
- 2. The consent for transfusion of blood and blood products shall be completed and signed by the patient and the physician or NP prior to the patient receiving blood and/or blood products.
- 3. Please refer to HHN-CL-NU022 Administration of Blood Products, Nursing Patient Care Policy and Procedure Manual for policy and procedure on administration.
- 4. All identifying information must be verified and all discrepancies must be resolved before the blood product is transfused.
- 5. Administration of blood and blood products must commence within 30 minutes of it being released from the laboratory. If this is not possible, return product to Transfusion Medicine immediately.
- 6. Do not warm the unit except where ordered by a physician (e.g. massive transfusion)
- 7. Do not add anything to the blood before administration.
- 8. Blood transfusions are to be started only by authorized personnel. Pressure infusions may be given only in the presence of a physician.
- 9. Personnel are responsible for supervising the transfusion and the patient must be closely observed during the administration of the first 50 100 milliliters of blood. The patient must be checked at regular and frequent short intervals for any sign of reaction.
- 10. Administration time should be between 2 3 hours and should never exceed 4 hours. The physician should specify the period of time and the volume per hour.
- 11. Complete the Issue Transfuse Form and photocopy and return to the laboratory. Attach the original copy to the patient's chart.

## E. Investigation of Transfusion Reactions

- 1. STOP the transfusion but do not disconnect the blood product
- 2. **KEEP** the IV open with 0.9% saline by using different IV tubing
- 3. CHECK the patient's vital signs or initiate continuous monitoring if a reaction is severe
- 4. **RECHECK** patient's armband and product identifiers for a possible clerical error. <u>ANOTHER PATIENT</u> <u>MIGHT BE AT RISK</u>
- 5. **NOTIFY** the attending physician or nurse practitioner (NP). The decision on restarting the transfusion will be made by the physician or NP
- 6. **NOTIFY** Transfusion Medicine (TM), save the offending product, leaving the filter attached and note the details of concomitant IV therapy and the clinical description of the reaction
- 7. DRAW a post-transfusion blood specimen (2 x 6 mL pink stoppered EDTA tubes)
- 8. **Complete** the issue transfusion form and take along with blood sample and suspected unit to Transfusion Medicine. **The reporting person must sign the form.**
- 9. SAVE all urine until further physician notice. TM may ask for urinalysis and/or chest X-Ray.

# F. Transfusion Reaction Information

The major types of transfusion reactions are described in this manual. Investigation of other types involve special procedures and will be the responsibility of the physician and pathologist. The aim in all cases is to determine as rapidly as possible if a potentially lethal reaction is occurring.

#### **Definitions:**

**Transfusion Reaction**: Undesirable condition which occurs during or after the administration of blood products.

Acute Transfusion Reaction: reaction seen within first 24 hours after start of transfusion **Delayed transfusion Reaction**: Reaction seen more than 24 hours after transfusion started

Symptoms	Possible reactions
Urticaria	Allergic
	Anaphylaxis
Fever, chills,	Febrile Non-hemolytic Transfusion Reaction (FNHTR)
rigors	Acute Hemolytic Transfusion Reaction (AHTR)
	Transfusion Related Acute Lung Injury (TRALI)
	Bacterial Contamination
Dyspnea	Transfusion Associated Circulatory Overload (TACO)
	Transfusion Related Acute Lung Injury (TRALI)
Hypotension	Bacterial Contamination
	Anaphylaxis
	Transfusion Related Acute Lung Injury (TRALI)
Hemolysis, dark	Acute Hemolytic Transfusion Reaction (AHTR)
or red urine	
Hypertension	Febrile Non-hemolytic Transfusion Reaction (FNHTR) usually diastolic BP ↑
	Transfusion Associated Circulatory Overload (TACO)

The three major types of transfusion reactions are described in this manual. Investigations of other types involve special procedures and will be the responsibility of the physician and Clinical Pathologist. The goal in all cases is to determine as quickly as possible if a potentially lethal hemolytic reaction is occurring.

Reaction	Signs and Symptoms
Hemolytic	Hemolysis is caused by incompatibility between donor and recipient's blood. Either donor's or recipient's cells may be hemolyzed, the first by antibodies in the recipient's serum and the latter by antibodies in the donor's serum. These reactions are most often due to a failure to properly identify the patient, clerical error or mismatching. <i>Identification of the patient and correct labeling of specimens is of utmost importance.</i> Symptoms usually begin after transfusion of the first 100 to 200 cc's of blood and consist of some or all of the following: - Fever and Chills - lumbar pain - Hemoglobinuria - feeling of heat along the transfusion vein - hypotension - unexplained bleeding - increased respiratory rate - precordial pressure or pain Nausea and vomiting may follow and progress to cyanosis, shock with cold clammy skin, coma and a failing pulse. A chill may be followed by a temperature rise to greater than 42 C and delirium may result. A hemorrhagic tendency may develop immediately and be manifested by bleeding from the transfusion site, IV sites or mucous membranes. The picture can be variable and there is one case reported of severe hemolysis in which the only clinical feature was mild urticaria. Rarely there is only hypertension and tachycardia which can vary in severity. Under anaesthesia the clinical recognition is difficult but the following may be seen: Fever and Chills - tachycardia Hemoglobinuria - tachypnea - petechial hemorrhages All of the above are more commonly related to the patient's disease process, to anaesthesia, and to surgical blood loss than to hemolytic transfusion reaction. Post- operative anuria is rarely as a result of a reaction but should be considered whenever unusual bleeding occurs during or following transfusion.
Allergic Reactions	These are usually due to the transfer of allergens in the donor's plasma to which the recipient is sensitive. Symptoms may develop several days after transfusion and include:         - urticaria (wheals, hives)       - lymphadenopathy         - sore throat       - fever         - eosinophilia       - joint pains         Rarely the more severe manifestation of allergy could occur:       - anaphylactic shock         - angioneurotic edema (face, glottis, larynx)       - bronchial asthma         The usual allergic reactions are seldom of any consequence and can be prevented or reduced in severity by premedication with an antihistamine if clinical history so indicates.
Febrile Non- Hemolytic Reaction	Characterized by a fever ( $\geq$ 38°C and a change of $\geq$ 1°C from pre-transfusion value), chills, sensation of cold, rigors, with or without headache and nausea or hypotension. Fever may not always be present

Reaction	Signs and Symptoms
TRALI	Transfusion related acute lung injury can occur up to 6 hours post transfusion Symptoms: Hypoxemia (O2 sat < 92%, pO2 < 60 or requiring O2): New bilateral CXR infiltrate findings: <u>Risk factors</u> : Direct Lung Injury Aspiration Pneumonia Toxic inhalation Lung contusion Near drowning <u>Indirect Lung Injury</u> Severe sepsis Shock Multiple trauma Burn Injury Acute pancreatitis Cardiopulmonary bypass Drug Overdose <u>Presentation:</u> Dyspnea, hypoxemia, fever and hypotension Chest x-ray reveals interstitial and alveolar infiltrates (pulmonary edema) without elevated pulmonary pressures Occurs with transfusion of RBCs, platelets and plasma, rarely with other blood products Almost always within the first 1-2 hours after start of transfusion but may be up to 6 hours Usually resolves within 24-72 hours T2% of reported cases require mechanical ventilation 5-10% of patients die Milder forms may present as transient hypoxia Acute transient leucopenia may be observed after a TRALI reaction Suspected cases of TRALI should be reported immediately to the Transfusion service. Donors and patient will be tested by Canadian Blood Service
TACO	Transfusion Associated Circulatory Overload. Results from impaired cardiac function or excessively rapid rate of transfusion. Clinical presentation includes dyspnea, orthopnea, cyanosis, tachycardia, increased venous pressure and hypertension.

# G. Use of Uncrossmatched Blood

- 1. In the event of extreme emergency, group O Rh negative or Group O Rh-Positive blood can be given. A specimen of the patient's blood is drawn prior to administration of the blood and the specimen is delivered to Transfusion Medicine where a crossmatch will be performed for group specific blood.
- 2. The ordering physician must sign the responsibility section of the form prior to administration of the product. Return a copy of the form to the laboratory upon completion of the transfusion.
- 3. It is always recommended that group specific blood be administered and every effort be made to perform a rapid group and Rh test in order to avoid the use of O Rh negative blood. This is a CONTROLLED document. LAB-7-ADM-LUM-00001

# H. Blood Product Information

Component	Specimen	Instructions	Testing Time	Use of Test	Additional Information
Albumin	N/A	Quantity required must be ordered by number required. Indicate whether 25% albumin or 5% is required	Available on demand		
C1 Esterase Inhibitor (Berinert™)	N/A	Indicate number of international units (IU) of product required	6 boxes of 500 IU each kept in the lab. Additional product available from The Moncton Hospital or CBS	Treatment of hereditary angioedema	
Cryoprecipitate	1 Pink	Must be administered within 4 hours of preparation. Use a regular blood filter. Indicate number of units requested.	Contact Transfusion Medicine. A small supply kept on site 20 min preparation time required	Fibrinogen replacement	Group specific cryo is preferable for children under 5. ABO group is not important in older children or adults.
Factor VIII Concentrate	N/A	Indicate number of international units required Product is packaged in vials of lyophilized product and sterile water for reconstitution. Administration by direct IV route.	Contact Transfusion Medicine. Available same day. 5-1000IU vials 5- 500 IU vials Stocked in lab.	Factor VIII deficiency (Hemophilia A)	Dose will be adjusted according to the amount of factor VIII contained in vials on hand and may surpass slightly or be slightly less than requested.
Factor IX concentrates	N/A	Indicate number of international units required Product is packaged in vials of lyophilized product and sterile water for reconstitution. Administration by direct IV route.	Contact Transfusion Medicine. Must be ordered from Canadian Blood Services or another facility	Factor IX deficiency (Hemophilia B)	Dose will be adjusted according to the amount of factor VIII contained in vials on hand and may vary slightly from order.

Component	Specimen	Instructions	Testing Time	Use of Test	Additional Information
Fibrinogen	N/A	State amount of fibrinogen requested in grams.	Product may be ordered from Canadian Blood Services or obtained from The Moncton Hospital	Hypofibrinog enemia.	
Fresh Frozen Plasma	1 Pink	Indicate number of units and volume required as well as date and time of infusion. Administer as soon as possible after thawing using regular blood filter.	Prepared immediately upon request. Takes approx. 30 min. to thaw.	Coagulation factors replacement	Plasma selected will be ABO compatible but may not be the patient's ABO group
Cytogam – CMV Immune Globulin	N/A	Indicate amount required in grams	Must be ordered from Canadian Blood Services		
Humate P: Anti-Hemophiliac Factor/ Von Willebrand Factor Complex	N/A	Indicate dose requested. Product is packaged in vials of lyophilized product and sterile water for reconstitution administration by direct IV route. Should be administered as soon as reconstituted (maximum allowable time is 6 hours)	Stocked in laboratory Available Same day.	Treatment of Von Willebrands disease	Dose will be adjusted according to the amount of factor VIII and Von Willebrand factor complex contained in vials on hand and may surpass slightly or be slightly less than requested.
IGIV - Immune/ Globulin Intravenous	N/A	Indicate amount required in grams. Dose will be calculated using adjusted body weight	Limited amount kept in lab.	Must complete Immune Glob Intravenous	e: <u>Request for</u> oulin
HBIG - Hepatitis B Immune Globulin	N/A	Indicate patient exposure and patient's weight in kilos on the requisition.	2 vials of 5 mL kept in the lab		
VZIG - Varicella Zoster Immune Globulin	N/A	Indicate patient's weight in kilos on the requisition.	Limited amount kept in lab.		

Component	Specimen	Instructions	Testing Time	Use of Test	Additional Information
RHIG - Rho (D) - Immune Globulin	1 Pink	Antibody screen must be done within 72 hours post-partum or within 2 weeks before delivery. Antibody screen must be done within 2 weeks prior to 28 week injection.	Both 1500 IU and 600 IU kept in stock. Within 24 hours.		
Platelets	1 Pink	Indicate the number of Doses required and time requested. At least 24 hour notice necessary as these must be ordered from Canadian Blood Services. Use regular blood filter. <b>NOTE:</b> Platelets should be ordered by Doses, one "Dose" being equivalent to <u>5</u> to 6 single units.	May take 24 - 48 hours. Every effort is made to have a dose on hand.	Thrombocyto penia.	
Concentrated red Cells Packed Cells	1 Pink	History - transfusion, medication, obstetric including due date if pregnant. Red blood cells should be ordered as Concentrated Red Cells (CRC) stating number of units requested. Indicate date and time if applicable.	Same day	Anemia or acute blood loss	
Prothrombin Complex concentrate ( Octaplex™)	N/A	Indicate number of milliliters (mls) or international units required.	Limited amount kept in lab.	Reversal of warfarin if patient bleeding or requires surgery within 6 hours	Usual dose is 40 mL (1000 IU) Vitamin K must be administered with product Maximum total dose 120 ml or 3000 IU factor IX Activity per 24 hr. day.

Component	Specimen	Instructions	Testing Time	Use of Test	Additional Information
Cuvitru	N/A	Indicate number of grams required	Limited amount kept in lab.	Indicated for use in Primary and Secondary immune deficiency	Subcutaneous Immune globulin (SCIG). Request form must be filled out for SCIG. New patients must provide proof of training

# I. Request for Immune Globulin Intravenous (IGIV)

- When IGIV is requested on adults the laboratory requires the physician to complete the <u>Request</u> <u>Form for IVIG (Adult)</u>
- When IGIV is requested on pediatric patients the laboratory requires the physicians to complete the Request Form for IGIV (Pediatric).
- When subcutaneous Immune Globulin is requested for home transfusion, Please contact the Transfusion Medicine Supervisor for information on completing the request.

# **Point of Care Testing**

Refer to <u>Point of Care (POC) Testing Procedures (Scroll down to Miramichi Area Documents)</u> located on Skyline/Departments and Programs /Laboratory Services/ Quick Links/ Laboratory User Manuals/ Point of Care (POC) Manual

Point of Care (POC) Testing falls under the direction and supervision of the laboratory, as mandated by Standards for Hospitals in New Brunswick, Section 7. For information pertaining to POC testing please contact the POC Coordinator at 857-5315.