



yukon
hospitals

whitehorse
dawson city
watson lake

Laboratory Guide to Services

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USER NOTE:

- Any [underlined and blue word](#) is a hyperlink to another section in the document or an external website. To use it, press CNTL (control key) while holding the mouse cursor over top of the word, you will now be able to click on the link using the left mouse button.
- At the end of each section, there is the option to “RETURN TO MAIN MENU”, this is a hyperlink to bring you back to the Table of Contents. While hovering over the words, press CTRL (control) key and you can use this hyperlink to return to the Table of Contents.
- Hyperlinks to external websites may also be used by right clicking on the [word](#) and selecting the option to “copy hyperlink”. In your web browser you can then “paste” the address.
- The headers have a coloured ribbon along the bottom; it is a quick reference to the order of draw tube colour.

- To search for a key word, press CTRL (control key) and “F”, it will bring up a search box where you can type the word(s) and hit “enter”, a search will occur through the document for any place that word may be found.
- This most current version of this document is electronic and online. Printed copies are considered uncontrolled: **DISCARD IMMEDIATELY.**

1.1 PURPOSE

The purpose of this manual is broad in order to inform a diverse group of providers and clientele. This manual does not include all procedural instructions for each group.

This Guide to Services is not intended to be a stand-alone document. It is to be used in conjunction with other references, see table below:

Resource (with hyperlinks)	Content Description
St. Paul's Hospital Accessioning Test Reference	PRIMARY RESOURCE- List of orderable Referred Out tests with instructions regarding preferred specimen container, minimum specimen quantity, special instructions. NOTE: This catalogue is for Referred Out tests ONLY. It does not include instructions for those tests done on-site. For on-site test instructions, refer to the WGH Laboratory Test Reference
St. Paul's Hospital Pathology and Cytology Requirements	Online guide for pathology and cytology specimen ordering, specimen collection criteria and specimen labelling criteria.
BC Cancer Agency Requisitions	Online reference for test requisitions for tumor marker testing, cervical cancer screening, etc. Includes information on specimen requirements, turnaround time, handling and transport instructions.
BCCH & BCCDC e-Lab Handbook	Online guide for tests performed at BC Children's & Women's Hospital and by BC Centre for Disease Control. Includes specimen ordering procedures, processing information, specimen collection instructions, and handling and transport instructions. (Mainly used for serology tests, come virology tests, genetic testing, etc.)

Process improvements and technological changes are constant in Laboratory Science. The WGH Laboratory has been undergoing rapid growth and expansion in recent years to meet the needs of a changing Yukon demographic. For these reasons, printed versions of this document may become rapidly out of date. Always refer to the online version to ensure access to current information and processes. We thank you for your understanding.

Updates are scheduled to occur three times a year:

- February 1st
- June 1st
- October 1st

NOTE: Laboratory Management may increase the number of publication in any given year dependent upon major operational changes.

1.2 HOURS OF SERVICE

OUTPATIENT SERVICES		
Whitehorse General Hospital	Dawson City Community Hospital	Watson Lake Community Hospital
Booked Appointments Only Monday to Friday 0800-1200, 1300-1600	Booked Appointments Only Monday to Friday 0830 - 1500	Booked Appointments Only Monday to Thursday 0800 - 1630
Closed weekends and holidays		

NOTE: WGH main Laboratory is staffed 24 hours a day, 365 days a year. Blood work needed on weekends and holidays, must be approved and pre-arranged with the Laboratory.

1.3 LABORATORY CONTACT INFORMATION

WGH Laboratory	DCCH Laboratory	WLCH Laboratory
PHONE		
867-393-8739 Menu Options: 1 - Book or Cancel an appointment 2 - Specimen collection and patient reports 3 - LIS support 4 - Medical professionals who need to speak to a technologist 5 - Point of Care (POC) and inventory management 6 - All other inquiries	867- 993-4444 Switch board operator can direct your call to the Laboratory	867-536-4444 Switch board operator can direct your call to the Laboratory
FAX		
Outpatient (Requisitions): 867-393-8694 Main Laboratory: 867-393-8772	867-993-4316 (ATTN:LAB)	867-536-5267 (ATTN:LAB)
MAILING ADDRESS		
WGH Laboratory 5 Hospital Road Whitehorse, Yukon Y1A 3H7	DCCH Laboratory P.O. Box 894 Dawson City, YT Y0B 1G0	WLCH Laboratory P.O. Box 866 Watson Lake, YT Y0A 1C0

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Blood

Culture

1.4 LABORATORY CONTACT DIRECTORY

POSITION	NAME	PHONE NUMBER	EMAIL
WGH Laboratory			
Laboratory Manager	Greg Shaw	867-393-8767	Gregory.Shaw@wgh.yk.ca
Specimen Management Lead	Kelly Cozens	867-393-9000 ext.8303	Kelly.Cozens@wgh.yk.ca
Core Lead	Marlene Croken	867-393-8927	Marlene.Croken@wgh.yk.ca
Transfusion Medicine Lead	Chad Milford	867-393-9005	Chad.Milford@wgh.yk.ca
LIS Lead	Ainsley Coates	867-393-8693	Ainsley.Coates@wgh.yk.ca
LIS Lead	Becky Nash	867-393-8650	Becky.Nash@wgh.yk.ca
Quality System Lead	Sheri-Lynn Heighington	867-393-8602	Sheri-Lynn.Heighington@wgh.yk.ca
Point of Care Coordinator	Patricia Rodgers	867-393-9000 ext.8304	Patricia.Rodgers@wgh.yk.ca
Director Diagnostic and Therapeutic Services	Tanya Solberg	867-393-8934	Tanya.Solberg@wgh.yk.ca
Dawson City Community Hospital			
Laboratory (CLXT)	Julie Kruhlak	867-993-4315	Julie.Kruhlak@wgh.yk.ca
Director of Patient Care	Kim Brooks	867-993-4310	Kim.Brooks@wgh.yk.ca
Watson Lake Community Hospital			
Laboratory (CLXT)	William Quarton	867-536-0240	William.Quarton@wgh.yk.ca
Director Of Patient Care	Carol Chaisson	867- 536-5252	Carol.Chaisson@wgh.yk.ca
SPH Laboratory Medical Consultants			
Switchboard (Lab Physicians on call)		604-682-2344	
YHC Laboratory Medical Director	Dr. Avrum Ostry	604-806-8581	AJOstry@providencehealth.bc.ca
PHC Laboratory Medical Director	Dr. Dan Holmes	604-806-8919	DTHolmes@providencehealth.bc.ca
Chemistry Medical Lead	Dr. Andre Mattman	604-806-8190	AMattman@providencehealth.bc.ca
Hematopathologist Medical Lead	Dr. Rodrigo Onell	604-806-8023	ROnell@providencehealth.bc.ca
Hematopathologist Medical Lead	Dr. Hamish Nicolson	604-806-8875	HNicolson@providencehealth.bc.ca
Hematopathologist Medical Lead	Dr. Bahmanyar	604-806-9355	MBahmanyar@providencehealth.bc.ca
Microbiology & Virology Medical Lead	Dr. Marc Romney	604-806-8188	MRomney@providencehealth.bc.ca

1.5 INTRA-TERRITORIAL REFERRAL SCHEDULE

Specimens are sent to WGH from Community Health Centers and the Community Hospitals. Below is a general guideline for routine shipments. Unless specified all shipments are sent via ground courier.

STAT specimens from the Community Hospitals will be sent on the next available mode of shipment to WGH (either by air or road transportation).

NOTE: Routine specimens ready for shipment may accompany the STAT shipment but it is dependent on timing and staffing resources.

Out of Territory referral specimens are sent from WGH laboratory to our supporting partners on a daily basis (refer to [Referred-Out Tests: Our Support Team](#) section below for a list of our partners)

Monday	Tuesday	Wednesday	Thursday	Friday
Carcross Health Centre	Carmacks Health Centre	Atlin Health Centre	Carmacks Health Centre	** Dawson City Community Hospital **
** Dawson City Community Hospital **	Faro Health Centre	Beaver Creek Health Centre (Once a Month)	Faro Health Centre	Watson Lake Community Hospital
Mayo Health Centre	Pelly Crossing Health Centre	Carcross Health Centre	Pelly Crossing Health Centre	
Watson Lake Community Hospital	Ross River Health Centre	Dawson City Community Hospital	Ross River Health Centre	
		Destruction Bay Health Centre		
		Haines Junction Health Centre		
		Mayo Health Centre		
		** Old Crow Health Centre **		
		Teslin Health Centre		

**** NOTE:** These shipments are sent via Air North Flights.

SPECIAL NOTE: These schedules are subject to change.

1.6 PRIVACY POLICY

Yukon Hospitals is a public organization and 'health information custodians' under Yukon's Health Information Privacy Management Act (HIPMA). This means we are responsible for collecting, using, disclosing and protecting your personal health information in accordance with HIPMA as well as other applicable laws.

We collect personal health information directly from you or the person acting on your behalf so we can provide safe and excellent hospital care. This information may include your name, photograph, date of birth, address, health card number, health history, records of your visits to Yukon Hospitals and/or other health care providers. Occasionally, we collect personal health information from other sources, if we obtain your consent or if the law permits.

For Further information regarding Patient Privacy please refer to the [Patient Privacy at WGH](#) section of the YHC website.

1.7 REQUISITION ORDERING GUIDELINES

- Requisition for laboratory procedures MUST be completed in entirety, including 2 unique patient identifiers. Refer to [Patient Identification](#)
- All requisitions for outpatient blood work/ ECGs/ Holter Monitors are required to be faxed to the laboratory to book the patient appointment.
 - Fax Number: 867-393-8946
- All requisitions must be signed (electronic signatures are acceptable) and dated by a Medical Practitioner with medical practicing privileges in the Yukon Territory as per Health Canada Accreditation Guidelines, YMC and YHC Medical Bylaws.
- Requisitions should contain contact information for the ordering physician and any copied physicians name should have their fax number.
- For online requisition links, refer to [Hyperlinked List of Requisitions](#).

1.8 BLOOD SPECIMEN COLLECTION GUIDELINES

- Medical Laboratory Staff will collect blood specimens ordered by the physician by venipuncture or skin puncture and are limited to draw from approved blood collections sites, which include antecubital veins and back of hand veins.
NOTE: If a different collection site is necessary, approval from the patient care provider is required.
- Laboratory Staff DO NOT collect:
 - Arterial blood specimens.
 - Legal specimens for law enforcement ([See section 1.9](#))
- **Laboratory Staff will not collect blood from inpatients with missing or illegible identification bands.** In exception where a clinical condition prevents a patient from wearing an identification band, the Laboratory Staff will obtain the identification of the patient from the attending nurse or physician before blood collection.
- Refer to [Section 5](#) Blood Collection Procedures for more information

1.9 BLOOD COLLECTION PRIORITIES

Tests requests for Inpatients can be ordered with different collection priorities. Below is a summary of the different collection categories available for inpatient collections.

NOTE: The time to report a result (Turnaround Time) is not the same as the collection priority. To see the turnaround time for a specific test please refer to the [WGH Laboratory Test Reference](#).

Laboratory Collection Categories	
Category	Notes
STAT	For emergency or critical situations only. All orders from the ER Department are STAT. Orders will be collected ASAP and within 15 minutes from order. Please phone the laboratory when placing a STAT order. NOTE: Best efforts will be made to collect STAT specimens within 15 minutes – this will depend upon the number of stat requests throughout the hospital and staffing levels.
URGENT	For specified timed collections or high priority collections that are not stat but cannot wait for the next routine pool collection. Ensure the date and time are specified when ordering tests (examples are peak or trough drug levels). Collections will be within 30 minutes of specified collection time. NOTE: Best efforts will be made to collect URGENT specimens within 30 minutes – this will depend upon the number of stat/Urgent requests throughout the hospital and staffing levels.
ROUTINE	Default collection category for inpatients. Orders to be collected in the designated Routine Pool times are specified below. New orders placed in between pool times will be collected in the next established pool, unless requested by phone. <ul style="list-style-type: none"> • ICU – 05:00 • Inpatient wards – 06:00 • All WGH – 11:00, 14:00 and 18:00
CBN	Specific category that indicates the collection will be <u>done by a nursing staff member</u> and dropped off at the laboratory. This category should NOT be used for blood collections (i.e. Blood Cultures). Appropriate uses of this category are orders for collection with swabs (e.g. MRSA order), or collections by patients (e.g. Urinalysis order). NOTE: Orders placed in this category are NOT monitored by laboratory staff and orders may be missed.

1.10 SPECIMEN COLLECTION FOR LEGAL PURPOSES

Medical Laboratory Staff are not authorized under the Criminal Code of Canada (Section 320.4) to collect specimens for Law Enforcement. The Laboratory does not collect or maintain ANY specimen type for legal purposes, there is no chain of custody maintained on any specimen collected by a patient or Laboratory Staff. ALL specimen collections obtained by Laboratory Staff are for medical treatment purposes ONLY.

Specimens collected by Laboratory Staff may be released to Law Enforcement for legal matters when requested by a Subpoena or Search Warrant. Law Enforcement officers may verbally request, directly through the Laboratory, for specimens to be sequestered until they arrive with the required documentation, those specimens will only remain sequestered for a **MAXIMUM** of 15 days (from original request). Law Enforcement officers must present to the Laboratory with the Quality/Risk Manager or Administrator on call, and the required documentation to obtain any specimens collected by the Laboratory. Please refer to YHC Policies LI-100 and LI-140 for more information or contact the Laboratory Manager.

1.11 APPOINTMENT BOOKING PROCEDURES for WGH:

All Laboratory procedures require a booked appointment.

1. Fill out the required Requisition for the patient.
2. Fax completed Requisitions to the Laboratory: 867-393-8946. See specific instructions for some tests in the following pages.
3. For URGENT appointments, phone the Laboratory at 867-393-8739, option 1, to book the appointments on behalf of the patient.
4. Patients that walk- in for laboratory services will be screened by laboratory staff before entering the facility. Select urgent patient scenarios may be permitted to walk in. Non-urgent patient scenarios will be asked to book an appointment and return at that particular time.

A. *Electrocardiogram (ECG/EKG)*

1. Refer patients with acute chest pain directly to the WGH ED, not to the Laboratory. A requisition is not required.
2. Pediatric patients may require longer appointment times, so please indicate the age of the child on the requisition before it is faxed.
3. Provide patient with a [Patient Information Sheet](#).
4. Verbally state to the patient:
 - Arrive at least 10 minutes early for the appointment so there is time for check-in. If you are late, there may be delays or your appointment may need to be rebooked.
 - Be prepared to wait. There can be delays if your doctor needs to review the ECG test results. While the actual test is fast, the entire appointment may last 30 minutes.

B. *Holter Monitor*

1. Provide patient with a [Patient Information Sheet](#).
2. Verbally state to the patient:
 - You must come to the WGH Laboratory to have your Holter Monitor fitted - the fitting appointment will take approximately 20-30 minutes.
 - You must wear the Holter Monitor for a 24 hour period.
 - You must return to the Laboratory the next day to have the monitor removed (10 minutes).
 - Read the Patient Instructions thoroughly to prepare for the appointment.
 - You will complete a diary of your activities for 24 hours.

NOTE: Holter Monitors are performed from Monday to Thursday only.

C. *Oral Glucose Tolerance Testing (GTT) and Gestational Diabetes Screen (GDS)*

1. Includes Non-Gestational and Gestational GTT tests.
2. Provide Patient with Patient Information Sheet
 - [Gestation Diabetes Screen](#) (50 gram load)
 - [2 Hour Gestation Diabetes](#) (75 gram load)
 - [2 Hour Non-Gestation](#) (75 gram load)
3. Verbally inform patient of the following information:
 - You can continue to take your medications.
 - Drinking a small amount of water is permitted.
 - Arrive 10 minutes early.
 - Read the Patient Information Sheet before the test to prepare for the appointment.

Dose and Collection Procedures for GTT

Procedure	Restrictions	Dose of Trutol 100 (1gm/3mL)	Blood Collections
2 hr. GTT, Non-Gestational (75 gram glucose load)	8 hr. fast; water permitted; take medication(s)	Adult: 225 mL= 75 gm	Fasting Collection 2 hr. Collection
2 hr. GTT, Gestational (75 gram glucose load)	8 hr. fast; water permitted; take medication(s)	Adult: 225 mL= 75 gm	Fasting Collection 1 hr. Collection 2 hr. Collection
Gestational Diabetes Screen (50 gram glucose load)	None	Adult: 150 mL= 50 gm	1 hr. Collection

D. *Outpatient Spirometry Testing*

This service is **no** longer provided as a WGH Outpatient Service. Please contact the Laboratory, 867-393-8739 and select option 2, if you require further information.

1.12 SPECIMEN DROP-OFF

Specimens may be delivered directly to the Laboratory screening area during business hours. Specimens require proper [specimen labelling](#) AND must have an accompanying requisition; failure to do so may lead to specimen rejection.

1.13 POINT OF CARE TESTING

Point-of-care testing (POCT) is defined as medical diagnostic testing at or near the point of care—i.e. at the time and place of patient care. POCT is typically performed by non-Laboratory personnel and the results are used for acute clinical decision making. This contrasts with a wider array of tests performed in the medical laboratory (e.g. WGH Laboratory) by Medical Laboratory Technologists.

The WGH Laboratory’s Point of Care Coordinator (POCC) provides support to Nurses and CLXTs (Monday to Friday 0800-1600) for use of Point of Care instruments within YHC. One example of approved POCT within YHC is the glucometer program.

Laboratory Services is **ONLY** responsible for approved POC testing and results performed within Yukon Hospital Corporation. The Laboratory is not responsible for POC testing and results performed outside Yukon Hospital Corporation which includes patient self-testing.

When performing Point of Care testing, every test requested must be recorded and incorporated into the patient’s permanent medical record. It is imperative that the POCT results are clear and legible (thermal printouts are not to be used to record results). The following criteria must be recorded for the POCT (DAP Accreditation Standard POC 6.0):

- Patient last and first name, date of birth, health care number
- Time (24 HR) and date (dd/mm/yy) the specimen was collected
- ID of the person performing the POCT
- POCT test results (test name must indicate it is a POCT)
- Time (24 HR) and date (dd/mm/yy) of POCT results

YHC Approved Point of Care Testing		
Whitehorse General Hospital	Dawson City Community Hospital	Watson Lake Community Hospital
Glucometer Program Urinalysis (Macroscopic)	Glucometers Drugs of Abuse (Urine) Pregnancy Test (Urine) iSTAT Chemistry tests (Chem8+) iSTAT PT/INR iSTAT cTnl iSTAT Blood Gas & Lactate (CG4+) Fetal Fibronectin Urinalysis (Macroscopic) CBC (PoCHi) Rapid Malaria Screen Erythrocyte Sedimentation Rate (ESR)	Glucometers Drugs of Abuse (Urine) Pregnancy Test (Urine) iSTAT Chemistry tests (Chem8+) iSTAT PT/INR iSTAT cTnl iSTAT Blood Gas & Lactate (CG4+) Fetal Fibronectin Urinalysis (Macroscopic) CBC (PoCHi) Rapid Malaria Screen Erythrocyte Sedimentation Rate (ESR)

1.14 OBTAINING LABORATORY RESULTS

Tests are performed in many different laboratories and the method of reporting differs with each one. Depending on the tests in question, results are:

- Automatically available in Meditech
- Faxed
- Delivered to clinics; or
- Available in Plexia in physicians' offices.

Laboratory Technologists phone physicians with critical test results as per laboratory policy.

If you are a **Medical Practitioner** and require results, phone the Laboratory at 867-393-8739, select option 2. Please provide the following information when you phone:

- Your full name and authority to access results (see note below)
- Secure fax # to receive results
- Patient's last and first names
- Date of birth
- Patient's health care number
- Date the specimen was collected
- Site or source of the specimen

NOTE: As a physician, if you are not listed on the original requisition as the ordering physician or a "copy to" physician, and are not on record as previously involved in the patient's care, but are **currently** involved in the patient's circle of care, under the HIPMA legislation and Yukon Hospital Policy LI-060, you may access the patients results, pertaining to their **current care**, by faxing (867-393-8772) a request to the Laboratory with the following information.

- Your full name and authority to access results (see note below)
- Secure fax # to receive results
- Patient's last and first names
- Date of birth
- Patient's health care number
- Date the specimen was collected
- Site or source of the specimen

If you are the **Patient** and would like a copy of your laboratory results, please complete the [Application for Access to Personal Health Information form](#), and bring it to the laboratory.

NOTE: On the form under "About your Request", option (b) examine the report, this option is not available for laboratory results, only a printed copy of your report is available.

For **third party consent**, to release your laboratory results to a third party not involved in your current circle of care, please phone the laboratory, press 2 to speak with a Medical Laboratory Assistant to obtain **Consent to Disclose Personal Information form (YHC LI-060-Form 2)**

NOTE: Information provided by the Laboratory cannot be interpreted by a Medical Laboratory Assistant, Medical Laboratory Technologist or Combined Laboratory X-Ray Technologist; you will need to address any questions regarding your results with your physician.

1.15 REFERRED-OUT TESTS: OUR SUPPORT TEAM

Certain tests are referred to external reference laboratories when it is not practical to perform such tests on site. The turnaround time of these test results depends on the transportation methods and organization of the laboratory to which the test is sent.

This table lists the referral laboratories outside the Yukon to which we send specimens for testing.

Facility	Website
Dynacare (locations: ON, QU)	https://www.dynacare.ca/
Dynalife (location: AB)	https://dynamifedx.com/
In-Common Laboratories (ICL) (location: ON)	http://www.hicl.on.ca/
Providence Health Care (PHC)	http://www.providencehealthcare.org/
<ul style="list-style-type: none"> St. Paul's Hospital (SPH) 	http://www.providencehealthcare.org/hospitals-residences/st-paul%27s-hospital
Provincial Health Services Authority (PHSA)	http://www.phsa.ca/
<ul style="list-style-type: none"> BC Communicable Diseases Control (BCCDC) 	http://www.bccdc.ca/
<ul style="list-style-type: none"> BC Children's Hospital 	http://www.bcchildrens.ca/
<ul style="list-style-type: none"> BC Women's Hospital & Health Centre 	www.bcwomens.ca
<ul style="list-style-type: none"> BC Cancer Agency 	http://www.bccancer.bc.ca/
Canadian Blood Services (CBS) BC-Yukon region	http://www.blood.ca/
Lifelabs Medical Laboratory Services (BC)	http://www.lifelabs.com/
Vancouver Coastal Health	http://www.vch.ca/
<ul style="list-style-type: none"> Vancouver General Hospital 	http://www.vch.ca/Locations-Services/result?res_id=644

NOTE: Other Canadian laboratories are periodically used for rare tests. Out of country test requests require approval from the Medical Director- consult the Laboratory Manager at 867-393-8767 for details.

1.16 COMPLAINTS POLICY

YHC welcomes concerns raised from patients/clients, family members and the public regarding the care that we provide.

The concern/complaint management process requires open communication and strong partnerships with patient/clients. First Nations Health Program (FNHP) plays a role in advocating for self-identified First Nations, Inuit and Metis patients and facilitates the complaint process as required.

You may complete the online [Feedback form](#) or contact the Quality Improvement team at 867-393-8731 to address any comments/concerns or complaints. The Laboratory Manager is onsite to address immediate concerns or comments in person. Concerns/complaints are important indicators of patient satisfaction and appropriate treatment and require acknowledgment and recognition.

Also available on our website for review is the [Patient Rights & Responsibilities](#) information.

[RETURN TO MAIN MENU](#)

2.1 WGH LABORATORY TEST MENU: ON-SITE SERVICES

Chemistry			
Serum/ Plasma:		Urine: (Random)	
Acetaminophen	Ketones (serum)	Albumin- Creatinine Ration (ACR)	Protein
Alanine Aminotransferase (ALT)	Lactate	Calcium	Protein Creatinine Ratio (PCR)
Albumin	Lactate Dehydrogenase	Chloride	Sodium
Alkaline Phosphatase (ALP)	Lipase	Creatinine	
Ammonia	Magnesium	Creatinine Clearance	
Arterial Blood Gas	Methanol Investigation	Osmolality	
Aspartate Aminotransferase (AST)	Methemoglobin	Phosphorus	
Bicarbonate	N-terminal Pro-BNP	Potassium	
Bilirubin- Direct	Osmolality		
Bilirubin- Total	Phosphorus		
Blood Urea Nitrogen	Potassium		
Calcium	Salicylate		
Calcium –Ionized (serum)	Sodium		
Carboxyhemoglobin	Thyroid Stimulating Hormone		
Chloride	Total Protein		
Cholesterol (Total, HDL, LDL)	Triglycerides		
Cord Blood (Arterial & Venous)	Troponin		
C-Reactive Protein	Uric acid		
Creatinine and eGFR (estimated Glomerular Filtration Rate)	Venous Blood Gas		
Creatinine Kinase	Therapeutic Drugs:		
Ethyl alcohol	Carbamazepine (Tegretol)		
Ferritin	Digoxin		
Gamma (Y)- Glutamyl Transferase (GGT)	Gentamicin		
Glucose	Lithium		
Hemoglobin A1c	Phenytoin (Dilantin)		
Human Chorionic Gonadotropin (HCG)	Vancomycin		
Hematology		Urine: (24 Hour)	
Absolute Granulocyte Count & Absolute Neutrophil Count		Albumin- Creatinine Ration (ACR)	Phosphorus
Blood film review		Calcium	Potassium
Cell count (CSF & Sterile Body Fluids)		Chloride	Protein
Complete Blood Count (CBC) with automated 5 part differential		Creatinine	Sodium
D-Dimer test			Urea
Fibrinogen C			Uric Acid
Malaria Screen (Antigen testing and Blood Films)			
Mononucleosis			
Partial Thromboplastin Time			
Prothrombin Time (PT/INR)			
Transfusion Medicine		Body Fluids:	
ABO & Rh Typing		Glucose	Protein
Antibody Screen		Lipase	Potassium
Compatibility test (cross match)		Lactate Dehydrogenase	Sodium
Cord Blood Investigation		pH	
Direct Antiglobulin Test (DAT)			
Transfusion reaction investigation			
Blood Products & Derived Blood Components		Urinalysis/ Stool Testing	
Albumin (5% & 25%)		Fecal Immunochemical Testing (FIT)	
Cryoprecipitate		Urinalysis - macroscopic & microscopic	
rFactor VIIa (NiaStase)		• Macroscopic testing includes: colour, appearance, glucose, bilirubin, ketones, specific gravity, blood, pH, protein urobilinogen, nitrite, leukocytes	
Factor VIII		• Microscopic testing includes: RBCs, WBCs, epithelial cells, urine crystals, bacteria, mucus, amorphous sediment	
Frozen Plasma		Drugs of Abuse (Urine)	
Hepatitis B Immune Globulin		• Testing includes: Cocaine, Amphetamine, THC, Opioid, Methamphetamine metabolite, Oxycodone, Benzodiazepines, Fentanyl, Buprenorphine	
Immune Serum Globulin (2 mL)		Pregnancy test (Urine)	
Intravenous Immune Globulin (IVIG)			
Platelets (Order in only)			
Prothrombin Complex Concentrate			
Red Blood Cells (Limited Supply)			
Rh Immune Globulin (RhIG)			
Varicella Zoster Immune Globulin			
Microbiology/Virology		Miscellaneous	
Gram Stain (Positive Blood Cultures & Sterile Body Fluid)		Fetal Fibronectin	
C. difficile (Antigen and Toxin Assay)		Human Immunodeficiency Virus - POC	
COVID-19 (WGH)			
Cardiac Procedures			
Electrocardiograms (ECGs)			
Holter Monitors			
NOTE: These procedures are performed by laboratory staff in the outpatient clinic and on inpatients except ER Patients.			

2.2 WGH LABORATORY TEST REFERENCE

This reference document provides instructions for each test run at WGH Laboratory:

- Meditech codes (both through the LAB module and the OE module)
- Preferred specimen container
- Minimum specimen quantity
- TAT (Turn Around Time from time of receipt in the Laboratory)
- Special instructions


NOTE: Before beginning **any Body Fluid collection**, please phone the Laboratory for direction on specimen handling & transport. Specimens need to be transferred immediately into the correct specimen containers.

Turnaround Time Reference (from receipt at testing facility)		
Department	Status/Test Group	Time
Chemistry/ Hematology/ Urinalysis/ Transfusion Medicine	STAT (on site test)	≤ 1 hour
	In-Patient (on site test)	≤ 2 hours
	Out-Patient (routine on site test), exception Mononucleosis Testing & FIT Testing	≤ 24 hours
	Referral (out of territory test)	≤ 24 hours, unless otherwise noted in the vendor test reference.
Microbiology/ Virology	COVID-19 (on site test)	≤ 4 hours
	<i>C. difficile</i> (on site test)	≤ 2 hours
	Gram Stain (on site test)	≤ 1 hour
	Genital Tract Specimens (referral-out of territory)	24-72 hours
	Routine Bacterial Culture (referral-out of territory) (e.g. throat swab)	3 days
	Sterile Specimen Culture (referral-out of territory)	3-7 days
	Stool Specimens (referral-out of territory)	4 days
	Wound Culture (referral-out of territory)	3 days
	COVID-19 (referral-out of territory)	≤ 24 hours

WGH Laboratory Test Reference

Blood

Culture

		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	Acetaminophen	ACTM	LAB	ACTM	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Alanine Aminotransferase (ALT)	ALT	LAB	ALT	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Albumin	ALB	LAB	ALB	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Albumin-Creatinine Ratio (ACR)	ACR	LAB	ALBCR	Urine Container	3.0 mL freshly voided urine	24 hours		
	Alkaline Phosphatase (ALP)	ALPI	LAB	ALK	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Ammonia	AMM	LAB	AMM	PST	0.5 mL Plasma (Lithium Heparin)	60 minutes	Keep on ice	WGH site availability only. Call laboratory for instructions on pediatric collections. *** Deliver to laboratory on ice***
	Arterial Blood Gas	ABG	LAB	ABG	PICO Syringe	0.7 mL PICO heparinized syringe whole blood	60 minutes	Deliver to laboratory IMMEDIATELY	WGH site availability only. Call laboratory for instructions on pediatric collections. *** Deliver to laboratory immediately***
	Aspartate Aminotransferase (AST)	AST	LAB	AST	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Bicarbonate (HCO ₃)/ Carbon Dioxide	C02	LAB	C02	PST	0.5 mL Plasma (Lithium Heparin)	24 hours	Do not open until analysis	Do not leave opened (uncapped) before testing
	Bilirubin -Direct	BILD	LAB	Call Laboratory	PST	0.2 mL Plasma (Lithium Heparin)	24 hours	Protected from light	Wrap specimen in tin foil to prevent photo degradation. Test added by laboratory when TBIL is elevated. Pediatric order by special request, phone laboratory.
	Bilirubin - Total	BILT	LAB	BILT	PST	0.2 mL Plasma (Lithium Heparin)	24 hours	Protected from light	Wrap specimen in tin foil to prevent photo degradation.
	Blood Urea Nitrogen (Urea)	BUN	LAB	BUN	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Calcium	CA	LAB	CA	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Calcium-Ionized (Serum)	CAI	LAB	CAI	SST	½ filled SST (Serum)	24 hours	DO NOT OPEN DO NOT FREEZE	WGH site availability only. Must have minimum half full tube. Place tube on 4°C gel pack immediately; allow tube to clot in fridge for 45-60 minutes. Spin in refrigerated centrifuge ; deliver to bench on cool gel pack. ***DO NOT OPEN PRIOR TO TESTING*** DO NOT FREEZE**
	Calcium- Urine (random)	CAU	LAB	Call Laboratory	Urine Container	3.0 of freshly voided urine	24 hours		
	Carbamazepine (Tegretol)	CRBM	LAB	CRBM	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Collect prior to next dose. Indicate date and time of last dose.
	Carboxyhemoglobin	COHGB	LAB	COHGB	PST	0.5 mL Whole Blood (Lithium Heparin) – Unopened Tube	60 minutes	Deliver to laboratory IMEDIATELY	WGH site availability only. Deliver immediately to the laboratory. (Included as part of the Venous Blood Gas)
	Chloride	CL	LAB	CL	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Chloride – Urine (random)	CLU	LAB	UCL	Urine Container	3.0 mL of freshly voided urine	24 hours		

WGH Laboratory Test Reference

Blood

Culture

yukon hospitals		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	Cholesterol	CHOL	LAB	CHOL	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Cholesterol- HDL	HDL	LAB	HDL	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Cholesterol – LDL	Not orderable	LAB	Not orderable	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		LDL Cholesterol is a calculation. To perform, both Triglycerides & HDL tests must be ordered.
	Cord Blood pH panel (arterial and venous)	CPH	LAB	CPH	PICO Syringe	0.7 mL PICO heparinized syringe whole blood – ON ICE WATER	24 hours	Deliver on ice water	WGH site availability only. Deliver to the laboratory on ice water.
	C-Reactive Protein (high sensitivity)	CRP	LAB	CRP	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Creatinine and eGFR (estimated glomerular filtration rate)	CRE	LAB	CRE	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		The eGFR calculation is not reported on patients ≤ 18 years old
	Creatinine- Urine (random)	CREAU	LAB	Call Laboratory	Urine Container	3.0 mL freshly voided urine	24 hours		
	Creatine Kinase (CK)	CKI	LAB	CK	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Digoxin	DIG	LAB	DIG	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Indicate date and time of last dose.
	Ethyl Alcohol (ETOH)	ETOH	LAB	ETOH	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		WGH site availability only. Use NON-alcohol based skin cleanser. Due to the volatile nature of alcohol, specimen tubes should be completely filled and capped to avoid evaporative loss to the atmosphere. Test only orderable for medical -non legal-purposes.
	Ferritin	FER	LAB	FER	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Gamma (Y)-Glutamyl Transferase (GGT)	GGT	LAB	GGT	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Gentamicin	GENT-PK	LAB	GENT-PK	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Peak levels – collect 1 hour post dose Provide date and time of next dose
	Gentamicin	GENT-TR	LAB	GENT-TR	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Trough levels – collect 30 minutes prior to next dose. Provide date and time of last dose
	Glucose –Fasting	GLUF	LAB	GLUF	PST	0.5 mL Plasma (Lithium Heparin)	24 hours	Time of collection must be written on the tube	Time of collection must be written on blood tubes and the requisition* Patient must fast prior to collection.
	Glucose- Gestational Diabetes Screening -50g Challenge test	GLU50	LAB	Call Laboratory	PST				Time of collection must be written on blood tubes and the requisition*. Refer to the WGH Laboratory Guide to Services Oral Glucose Tolerance Testing (GTT) and Gestational Diabetes Screen (GDS)
	Glucose – Oral Glucose Tolerance test 75g (Gestational)	GTTEST	LAB	GTTGEST	PST				Time of collection must be written on blood tubes and the requisition*. Refer to the WGH Laboratory Guide to Services Oral Glucose Tolerance Testing (GTT) and Gestational Diabetes Screen (GDS)

WGH Laboratory Test Reference

Blood

Culture

yukon hospitals		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	Glucose – Oral Glucose Tolerance test 75g (NON-Gestational)	GTT2	LAB	GTT2	PST	0.5 mL Plasma (Lithium Heparin) Time of collection must be written on the tube.	24 hours	Time of collection must be written on the tube	Time of collection must be written on collection tubes and the requisition*. Refer to the WGH Laboratory Guide to Services Oral Glucose Tolerance Testing (GTT) and Gestational Diabetes Screen (GDS)
	Glucose Random	GLU	LAB	GLU	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Hemoglobin A1c	HA1C	LAB	HGBA1C	EDTA (lavender top)	2 mL EDTA whole blood	24 hours		DO NOT centrifuge.
	Human Chorionic Gonadotropin (HCG)	HCG	LAB	HCG	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Ketones (serum)	ML-KETSER	LAB	ML-KETSER	SST	0.5 mL of serum	24 hours		Beta-Hydroxybutyrate auto ordered with Serum Ketones. Collect both a Gold Top tube (SST) for Ketones AND a Light Green (PST) for Beta-Hydroxybutyrate (send frozen to SPH)
	Lactate	VLAC	LAB	LACTV	PST	0.5 mL Whole Blood (Lithium Heparin)	60 minutes	Deliver to laboratory IMMEDIATELY	WGH site availability only. DO NOT use tourniquet when collecting blood. Deliver to laboratory immediately.
	Lactate Dehydrogenase (LD)	LDI	LAB	LDH	PST	0.5 mL Plasma (Lithium Heparin)	24 hours	DO NOT refrigerate or freeze	Room Temperature storage and transport. Do NOT refrigerate or freeze.
	Lipase (LIP)	LIP	LAB	LIP	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Lithium	LITH	LAB	LITH	SST (red or gold top)	0.5 mL serum (SST)	24 hours		DO NOT use Lithium Heparin Tube – interferes in assay. Collect just prior to next dose unless toxicity is suspected. Provide Date and Time of last dose.
	Magnesium	MG	LAB	MG	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Methanol Investigation	METINV	LAB	METINV	PST	0.5 mL Plasma (Lithium Heparin)	60 minutes	Order with Osmolality Also order: ABG or VBG, ETOH, GLU and Electrolytes	This test is ordered in conjunction with Osmolality. Use non-alcohol skin cleanser. Due to the volatile nature of alcohol, specimen tubes should be completely filled and capped to avoid evaporative loss to the atmosphere.
	Methemoglobin	METHB	LAB	Call Laboratory	PST	0.5 mL Whole Blood (Lithium Heparin) – Unopened Tube	60 minutes	Deliver to laboratory IMMEDIATELY	WGH site availability only. Deliver immediately to the laboratory. (Included as part of the Venous Blood Gas)
	N-terminal Pro-BNP	BNP	LAB	BNP	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Osmolality	OSMO	LAB	OSMO	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Specimens should remain capped until processing. Specimens not processed within 30 minutes of centrifugation must be refrigerated at 2-8 °C. Specimens should be at room temperature before processing.
	Osmolality-Urine	OSMOU	LAB	UOSM	Urine container	3.0 mL freshly voided Urine	24 hours		Specimen should be at room temperature before processing.

WGH Laboratory Test Reference

Blood


Culture

yukon hospitals		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	Phenytoin (Dilantin)	PTN	LAB	PTN	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Collect just prior to next dose unless toxicity is suspected. Provide Date and Time of last dose.
	Phosphorus	PHOS	LAB	PHOS	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Phosphorus – Urine (random)	PHOSU	LAB	Call Laboratory	Urine Container	3.0 mL of freshly voided urine	24 hours		
	Potassium	K	LAB	K	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Potassium – Urine (random)	KU	LAB	UK	Urine Container	3.0 mL of freshly voided urine	24 hours		
	Salicylate (ASA)	SAL	LAB	SAL	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Sodium	NA	LAB	NA	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Sodium – Urine (Random)	NAU	LAB	UNA	Urine container	0.5 mL freshly voided urine	24 hours		
	Thyroid Stimulating Hormone (TSH)	TSH	LAB	TSH	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Total Protein	TP	LAB	TP	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Total Protein – Urine (random)	UTP	LAB	Call Laboratory	Urine Container	3.0 mL of freshly voided urine	24 hours		
	Total Protein-Creatinine Ratio – PCR (random)	PRCRR	LAB	URINEPrCr	Urine Container	3.0 mL of freshly voided urine	24 hours		Specimen can be frozen.
	Triglycerides	TRIG	LAB	TRIG	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Patient must fast for 12 hours prior to blood collection. (Fasting is NOT required for pancreatitis risk assessment).
	Troponin	TROP	LAB	TROP	PST	0.5 MI Plasma (Lithium Heparin)	60 minutes		Freeze specimen if in transit for > 48 hours
	Uric Acid	URIC	LAB	URIC	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		
	Vancomycin – Random	VANR	LAB	VANR	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Provide date and time of next dose if available
	Vancomycin - Peak	VANP	LAB	VANP	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Peak levels – collect 1 hour post dose Provide date and time of next dose
	Vancomycin – Trough	VANT	LAB	VANT	PST	0.5 mL Plasma (Lithium Heparin)	24 hours		Trough levels – collect 30 minutes prior to next dose Provide date and time of next dose
	Venous Blood Gas	VBG	LAB	VBG	PST	0.5 mL Whole Blood (Lithium Heparin) – Unopened Tube	60 minutes	Deliver to laboratory IMMEDIATELY	WGH site availability only. Deliver immediately to the laboratory.

WGH Laboratory Test Reference

Blood

Culture

		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	24 HOUR URINE: (see collection instructions)								
	Albumin-Creatinine Ratio, 24 hour urine	MALB24	LAB	Call Laboratory	24 hour Urine container	No preservative needed	24 hours		
	Calcium, 24 hour urine	CA24	LAB	UCAL24		No preservative needed			Acidify with HCl prior to analysis. Store refrigerated during collection. Can be collected in acid- Add 10-20 mL of 6M HCl to container prior to collection
	Chloride, 24 hour urine	CL24	LAB	UCL24		No preservative needed			
	Creatinine, 24 hour urine	CREAT24	LAB	UCREAT24		No preservative needed			Can be collected in acid. Add 10-20 mL of 6M HCl to container prior to collection
	Creatinine Clearance, 24 hour urine	CREATCL	LAB	UCRCL24		No preservative needed			Order a creatinine test and submit PST for testing. Blood should be drawn during the 24 hours of urine collection but is acceptable to collect within the 24 hours before or after the urine collection. Submit patient height and weight for calculation.
	Magnesium, 24 hour urine	MG24	LAB	UMG24		Add 10-20 mL of 6M HCl to container prior to collection			
	Phosphorus, 24 hour urine	PHOS24	LAB	UPHOS24		No preservative needed if testing within 2 days			Acidify before analysis with HCl. Can be collected in acid- Add 10-20 mL of 6M HCl to container prior to collection
	Potassium, 24 hour urine	K24	LAB	UK24		No preservative needed			
	Protein, 24 hour urine	TP24	LAB	UPRO24		No preservative needed			
	Sodium, 24 hour urine	NA24	LAB	UNA24		No preservative needed			
	Urea, 24 hour urine	UREA24	LAB	Call Laboratory		No preservative needed			
	Uric Acid, 24 hour urine	URIC24	LAB	UURIC24		Add 10 mL of 5% NaOH to container prior to collection			

WGH Laboratory Test Reference

Blood


Culture

yukon hospitals		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
HEMATOLOGY	Absolute Neutrophil Count and Absolute Granulocyte Count	ANC/AGC	LAB	ANC/AGC	EDTA (lavender top)	1.0 mL EDTA whole blood	24 hours		CBC must be ordered with this test. Special cases ONLY (e.g. Chemo patients) Blood films must be made within 6 hours of collection. Information on making a blood film can be found in the WGH Laboratory Guide to Services, How to prepare a Blood Film . Do NOT freeze specimen.
	Cell Count – Fluid	Refer to Body Fluid Section below							
	Complete Blood Count (CBC) with automated 5 part differential	CBC	LAB	CBC	EDTA (lavender top)	1.0 mL EDTA whole blood	24 hours		Blood films must be made within 6 hours of collection. Information on making a blood film can be found in the WGH Laboratory Guide to Services, How to prepare a Blood Film . Do NOT freeze specimen.
	Dimer Test	DIM	LAB	DIM	Sodium Citrate (blue top)	FILL tube completely	24 hours	DO NOT refrigerate	DO NOT refrigerate! If not able to process testing within 4 hours, centrifuge, remove plasma from cells and freeze at -20 °C
	Fibrinogen C	FIB-C	LAB	FIB-C	Sodium Citrate (blue top)	FILL tube completely	60 minutes	DO NOT refrigerate	DO NOT refrigerate! If not able to process testing within 4 hours, centrifuge, remove plasma from cells and freeze at -20 °C
	Malaria Screen	MAL	LAB	MAL	EDTA (lavender top)	1.0 EDTA whole blood Thick and Thin Blood Films	60 minutes	Blood films must be made within 1 hour of collection	CBC must be ordered with this test. Must provide travel history: countries visited, dates. Call Laboratory for more information. Blood films must be made within 1 hour of collection.
	Mononucleosis Screen	MONO	LAB	MONO	SST	0.5 mL serum	2 business days	7 days at 2-8 °C	This test is run 3 times per week.
	Partial Thromboplastin Time	PTT	LAB	PTT	Sodium Citrate (blue top)	FILL tube completely	24 hours	DO NOT refrigerate	DO NOT refrigerate! If not able to process testing within 4 hours, centrifuge, remove plasma from cells and freeze at -20 °C
	Prothrombin Time (PT/INR)	INR	LAB	INR	Sodium Citrate (blue top)	FILL tube completely	24 hours		DO NOT refrigerate! ***If not able to process testing within 24 hours, centrifuge, remove plasma from cells and freeze at -20 °C***
	Reticulocytes	RETIC	LAB	RETIC	EDTA (lavender top)	1.0 EDTA whole blood	24 hours		CBC must be ordered with this test.
	Semen Analysis – Infertility	SF	LAB	SF	Sterile Container	Transport to laboratory immediately	24 hours	Keep warm (Close to body temperature)	Drop off at laboratory Monday to Friday from 8:00 to 15:00.
	Semen Analysis – Post Vasectomy	SAPV	LAB	SPP	Sterile Container	Transport to laboratory immediately	24 hours		Drop off at laboratory Monday to Friday from 8:00 to 15:00.


WGH Laboratory Test Reference

Blood


Culture

		Meditech (Lab Module)		Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Ensure specimens are labelled with 2 unique identifiers and requisitions are completed in their entirety to ensure appropriate testing
Test Name		Test Code		OE Category	Test Code					
BODY FLUIDS (includes Chemistry, Hematology and Microbiology testing)	Cerebral Spinal Fluid									
	Cell Count	CSFCC	LAB	CSFCC	CSF Tube- no additive	1.0 mL of CSF	60 minutes	Deliver to laboratory IMMEDIATELY	WGH site availability only.	
	Culture	CSCSF	MIC	CSF		0.5 mL of CSF	7 days		Specimen referred to SPH at room temperature on next available flight. Initial Gram Stain performed at WGH.	
	Glucose	CSFGLU	LAB	CSFGLU		0.5 mL of CSF	60 minutes		WGH site availability only.	
	LDH	CSFLDH	LAB	Call Laboratory		0.5 mL of CSF				
	Total Protein	CSFTP	LAB	CSFTP		0.5 mL of CSF	4 days		WGH site availability only.	
	VDRL	VDRL-CSF	LAB	Call Laboratory		0.5 mL of CSF			Specimen referred to BCCDC – send refrigerated.	
	Viral	VIR-CSF	LAB	Call Laboratory		0.5 mL of CSF				
	Dialysate Fluid									
	Cell Count	DIACC	LAB	DIACC	EDTA (lavender top)	1.0 mL of fluid	24 hours	Deliver to laboratory IMMEDIATELY		
	Culture	CSDIAL	MIC	DIAL	Sterile Container	1.0 mL of fluid		Keep refrigerated	Specimen referred to SPH at 2-8 °C on next available flight. Gram Stain and culture performed at SPH	
	Glucose	DIAGLU	LAB	Call Laboratory	Red Top	1.0 mL of fluid		Deliver to laboratory IMMEDIATELY	WGH site availability only	
	Lipase	DIALIP	LAB	DIALIP					WGH site availability only	
	Lytes (Sodium, Potassium)	DIALYT	LAB	Call Laboratory						
	Pericardial Fluid									
	Cell Count	PCCC	LAB	PCCC	EDTA (lavender top)	1.0 mL of fluid	60 minutes	Deliver to laboratory IMMEDIATELY		
	Culture	Refer to Sterile Fluid Culture							Store and Transport at 2-8 °C	
	LDH	PCLDH	LAB	PCLDH	Red Top	1.0 mL of fluid		DO NOT refrigerate	If other testing ordered, separate specimen into a second Red Top Tube and store at room temperate until processed.	
	Peritoneal Fluid		Includes Paracentesis or Ascites							
	Cell Count	PTCC	LAB	PTCC	EDTA (lavender top)	1.0 mL of fluid	60 minutes	Deliver to laboratory IMMEDIATELY		
	Culture	Refer to Sterile Fluid Culture (For Peritoneal Dialysate refer to Dialysate Fluid Culture)							Store and Transport at 2-8 °C	
	Glucose	PTGLU	LAB	PTGLU	Red Top	1.0 mL of fluid			WGH site availability only	
	Lipase	PTLIP	LAB	PTLIP	Red Top					
	LDH	PTLDH	LAB	PTLDH	Red Top	1.0 mL of fluid		DO NOT refrigerate	If other testing ordered, separate specimen into a second Red Top Tube and store at room temperate until processed.	
	Total Protein	PTTP	LAB	PTTP	Red Top	1.0 mL of fluid		Deliver to laboratory IMMEDIATELY	WGH site availability only	
	Pleural Fluid		Includes Thoracentesis							
	Cell Count	PLCC	LAB	PLCC	EDTA (lavender top)	1.0 mL of fluid	60 minutes	Deliver to laboratory IMMEDIATELY		
	Culture	Refer to Sterile Fluid Culture							Store and transport at 2-8 °C	
	Glucose	PTGLU	LAB	PTGLU	Red Top	1.0 mL of fluid			WGH site availability only	
	LDH	PLLDH	LAB	PLLDH	Red Top	1.0 mL of fluid		DO NOT refrigerate	If other testing ordered, separate specimen into a second Red Top Tube and store at room temperate until processed.	
	pH	PLPH	LAB	Call Laboratory	Red Top					
	Total Protein	PLTP	LAB	PLTP	Red Top	1.0 mL of fluid		Deliver to laboratory IMMEDIATELY	WGH site availability only	

WGH Laboratory Test Reference


Blood		Culture							
		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Ensure specimens are labelled with 2 unique identifiers and requisitions are completed in their entirety to ensure appropriate testing
Test Name		Test Code	OE Cate gory	Test Code					
BODY FLUIDS continued	Sterile Fluid	Includes Amniotic Fluid (ALL NON-STERILE FLUIDS should be ordered as a WOUND CULTURE (REFER TO MICROBIOLOGY BELOW))							
	Culture	CSFLU	MIC	FLU	Sterile Container	0.5 mL of Fluid	7 days	Deliver to laboratory IMMEDIATELY	Initial Gram Stain performed at WGH. Specimen referred to SPH on next available flight. CSF and Synovial fluid sent at room temperature, all other sterile fluids sent at 2-8 °C
	Synovial Fluid								
	Cell Count	SYCC	LAB	SYCC	EDTA (lavender top)		60 minutes	Deliver to laboratory IMMEDIATELY	
	Culture	Refer to Sterile Fluid Culture							
	Crystals	SYCRY	LAB	SYCRY	Red Top	This is a referred out test, please refer to the St. Paul's Test Reference Manual for instructions.			
URINE AND STOOL Testing	Fecal Immunochemical Test (FIT)	FIT	LAB	FITS	FIT collection kit	See kit instructions	2 business days		Specimen requires refrigeration after collection. Deliver to laboratory within 48 hours of collection. If testing cannot be completed within 7 days of collection, must be frozen at -20 °C for up to 21 days.
	Urinalysis (includes macroscopic and microscopic)	UA	LAB	UA	Urine container	10 mL of freshly voided urine	24 hours		Refrigerate specimen if delayed in transport ≥ 2 hours
	Drugs of Abuse (Urine)	UDOA	LAB	UDOA	Urine container	2.0 mL of freshly voided urine	24 hours		UDOA includes Fentanyl Screen. Any physician with ordering privileges in Yukon is permitted to order UDOA for medical diagnosis and/or treatment of a patient ONLY . The Laboratory does not perform testing for legal purposes on any specimen including UDOA, please refer to section 1.10 .
	Methamphetamine Screen (Urine)	UDOA-METH	LAB	Call Laboratory	Urine Container	2.0 mL of freshly voided urine	24 hours		This test is ordered verbally, please contact Laboratory.
	Pregnancy (Urine)	PREG	LAB	UHCG	Urine Container	2.0 mL of freshly voided urine	24 hours		
MISCELLANEOUS	Fetal Fibronectin	FFN	LAB	FFN	FFN Swab	See kit instructions	60 minutes	Keep swab upright in transit.	Send swab to Laboratory immediately at room temperature, if there is a delay in transit, please refrigerate. Keep tube in upright position while in transit.
	Human Immunodeficiency Virus Test (HIV)	HIV-POC	LAB	HIV-POC	EDTA (lavender tube)		60 minutes		Test is provided for acute/emergent cases, not available for monitoring.

WGH Laboratory Test Reference

<div>Blood</div> <div>Culture</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>									
		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON-Lab only)		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen Stability	Additional Comments
Test Name		Test Code	OE Category	Test Code					NOTE: Specimens should be gently inverted immediately after collection
TRANSFUSION MEDICINE	ABO & Rh Typing	ABO	BBK	ABO	EDTA (lavender top)	2.0 mL of EDTA whole blood	24 hours	7 days at 2-8 °C	Not to be used for Pre-transfusion testing
	ABO & Rh Typing Baby (<6 months)	ABOBABY	BBK	ABOBABY	EDTA (lavender top)	0.5 mL of EDTA whole blood	24 hours	7 days at 2-8 °C	Not to be used for Pre-Transfusion testing
	Antibody Screening	ABSC	BBK	ABSC	EDTA (lavender top)	2.0 mL of EDTA whole blood	24 hours	7 days at 2-8 °C	Not to be used for Pre-Transfusion testing
	Cord Blood Investigation (ordered on new born)	CORD	BBK	BABY CORD	EDTA or Red Top tube	1.0 mL of whole blood	24 hours		Order on Newborn of Rh Negative Mothers ONLY. Order RhIG Requirement for Mother at the same time.
	Direct Antiglobulin Test (DAT)	DAT	BBK	COOD	EDTA (lavender top)	0.5 mL of EDTA whole blood	24 hours	7 days at 2-8 °C	Also referred to as Direct Coombs Test
	Group and Screen (pre-Transfusion)	GPSC	BBK	GS	EDTA (lavender top)	2.0- 6.0 mL of EDTA whole blood	<1 hour or same day	96 hours - 30 days at 2-8 °C	Blood Bank ID (wristband) system must be used.
	Prenatal Investigation	PRENAT	BBK	PRENAT	EDTA (lavender top)	6.0 mL of EDTA whole blood	10 days	Specimen referred to CBS for testing	Order early in Pregnancy. Test Rh Negative mothers again at 24- 28 weeks gestation. Blood must be collect before RhIG is given.
	RhIG requirement for Mother (order on Mother)	NEEDRHIG	BBK	CORD MOMRH	N/A	N/A	24 hours	N/A	Order for Rh NEGATIVE mothers ONLY. Order Cord Blood Investigation on newborn at the same time.
	Transfusion Reaction Investigation	TXRXINV	BBK	TXRXIN					
	Blood Components and Products (for current information about these blood components and products visit: https://professionaleducation.blood.ca/en/transfusion/clinical-guide-transfusion)								
	Albumin 5%	A5	BBK	TRA5	N/A	N/A	10 minutes	N/A	
	Albumin 25%	A25	BBK	TRA25	N/A	N/A	10 minutes	N/A	
	Cryoprecipitate	CRYO	BBK	TRCRYO	N/A	N/A	45 minutes	N/A	Blood Group required order if not done. Product issued as pooled.
	Factor VIII	F8	BBK	TRF8	N/A	N/A	10 minutes	N/A	Hemophilia A patients ONLY.
	Frozen Plasma	FFP	BBK	TRFP	N/A	N/A	30 minutes	N/A	Blood Group required.
	Hepatitis B Immune Globulin	HBIG	BBK	HBIG	N/A	Communities require approval	10 minutes	N/A	CMOH approval Required via YCDC
	Immune Serum Globulin (2ml)	ISG	BBK	N/A	N/A	Communities require approval	10 minutes	N/A	CMOH approval Required via YCDC
	Intravenous Immune Globulin (IVIG)	IVIG	BBK	TRIVIG	N/A	N/A	10 minutes	N/A	Prior Approval required – call Laboratory
	Platelets	PLT	BBK	TRPLT	N/A	N/A	24 hours	N/A	Not stocked in WGH laboratory. Blood Group required, order if not complete. Issued by Adult Dose
	Prothrombin Complex Concentrate	PROCOM	BBK	TRPROCOM	N/A	N/A	15 minutes	N/A	For URGENT Warfarin (Coumadin) Reversal.
	Recombinant Activated Factor VII	F7A	BBK	TRF7	N/A	N/A	10 minutes	N/A	Pathologist approval Required – call Laboratory.
	Red Blood Cells	RBC	BBK	TRPC	N/A	N/A	Varies clinically	Refer to group and screen	Group and Screen required. Indicate number of units required.
	Rh Immune Globulin (RhIG)	RHIG	BBK	RHIG	N/A	Communities need to request RhIG via fax	10 minutes	N/A	Blood Group required; issued to Rh Negative females only
	Varicella Zoster Immune Globulin	VZIG	BBK	TMVZIG	N/A	Communities require approval	10 minutes	N/A	CMOH approval Required via YCDC


WGH Laboratory Test Reference

Blood Culture

 yukon hospitals		Meditech (Lab Module)	Meditech (OE Module) <i>(WGH internal NON-Lab only)</i>		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Ensure specimens are labelled with 2 unique identifiers and requisitions are completed in their entirety to ensure appropriate testing	
Test Name		Test Code	OE Category	Test Code						
MICROBIOLOGY/ VIROLOGY	Gram Stain (smear)		NOT orderable (included in culture order) – DO NOT MAKE SLIDE (WGH Gram Stain only done on Positive Blood Cultures and Sterile Body Fluids, others completed at SPH)							
	Antibiotic-Resistant Organisms (ARO SCREEN):									
	CPO Screen		CPO	MIC	CPO	Copan eSwab	Indicate source of collection	2 days		Follow department specific guidelines for collection Referred to SPH – send refrigerated
	<u>MRSA:</u> MRSA – Groin MRSA – Nares MRSA – Other MRSA – Perianal		MRSA GRO MRSA NARES MRSA OTHER MRSA PERA	MIC	MRSA GRO MRSA NARES MRSA OTHER MRSA PERA	Copan eSwab	Indicate source of collection	2 days		Follow department specific guidelines for collection Referred to SPH – send refrigerated
	<u>VRE:</u> VRE - Rectal VRE - Other (wound)		VRER VREW	MIC	VRER VREW	Copan eSwab	Indicate source of collection	2 days		Follow department specific guidelines for collection Referred to SPH – send refrigerated
	GENITAL TRACT SPECIMENS:									
	Chlamydia (CT) & Gonorrhea (GC) by NAT – Endocervix or Urethra		CHLAMGC	LAB	CHLAM	Aptima Unisex Swab	Indicate source of collection	24 hours		Endocervix -white swab to remove excess mucous, discard, use blue swab to collect specimen Urethra – Use blue swab to collect specimen Referred to SPH – send room temperature
	Chlamydia (CT) & Gonorrhea (GC) by NAT – Rectal or Vaginal		CHLAMGC	LAB	CHLAM	Aptima Multitest (Orange) Swab	Indicate source of collection	24 hours		Includes Lympho-granuloma venereum (LGV) Referred to SPH – send room temperature
	Chlamydia (CT) & Gonorrhea (GC) by NAT -Urine		CHLAMGC	LAB	CHLAM	Urine container AND Aptima Urine (Yellow) tube	“First catch” urine (the first 15-20 mL of voided urine)	24 hours	Collected into Sterile Container and then transfer to Urine Aptima Tube	Patient should not void urine for 1 hour prior to collection. Collect the first voided portion of the urine no more than 30 mL into the Sterile container. Transfer to the Aptima Urine tube using a sterile pipette before shipping. Midstream urine collections (E.G. for Urine Culture) are not suitable to STI collections Referred to SPH – send room temperature
	Genital Culture (Vaginitis)		CSGEN	MIC	GEN	Copan eSwab	Indicate Source of collection	3 days		Referred to SPH – send refrigerated
	Gonorrhea Culture (not usually recommended)		GC	MIC	Call Laboratory	Copan eSwab	Indicate source of collection	3 days	Deliver to laboratory as soon as possible	Referred to SPH – send refrigerated
	Group B Strep Screen		GBS	MIC	GBS	Copan eSwab	Pregnancy only	3 days	Deliver to laboratory as soon as possible	Refer to Health & Social Services’ Prenatal Checklist for further details on schedule of testing. Referred to SPH – send refrigerated
	Trichomonas by NAT		TVA	MIC	Call Laboratory	Aptima Multitest (Orange) Swab		24 hours		Referred to SPH- send refrigerated


WGH Laboratory Test Reference



		Mediatech (Lab Module)	Mediatech (OE Module) <i>(WGH internal NON-Lab only)</i>		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Ensure specimens are labelled with 2 unique identifiers and requisitions are completed in their entirety to ensure appropriate testing
Test Name		Test Code	OE Category	Test Code					
MICROBIOLOGY/VIROLOGY	ROUTINE CULTURES:								
	Ear	CSEAR	MIC	EAR	Copan eSwab	Indicate Right or Left Ear	3 days		Referred to SPH – send refrigerated
	Eye	CSEYE	MIC	EYE	Copan eSwab	Indicate Right or Left Eye	3 days		Referred to SPH – send refrigerated
	Mouth/Tongue (YEAST ONLY)	CSWOUND	MIC	CSWOUND	Copan eSwab	Indicate source of collection	3 days		Referred to SPH – send refrigerated
	Nose	CSN	MIC	N	Copan eSwab		3 days		
	Respiratory Suction (e.g. Bronchoalveolar lavage)	RESP	MIC	RESP	BAL Collection Container	Deliver to laboratory immediately	3 days	Deliver to laboratory IMMEDIATELY	Sterile Container can also be used as an alternative specimen collection container. Referred to SPH – send refrigerated
	Sputum	RESP	MIC	RESP	Sterile Container	2.0 mL fresh specimen	3 days	Deliver to laboratory IMMEDIATELY	Referred to SPH – send
	Throat	T	MIC	T	Copan eSwab	Indicate source of collection	3 days		Provide patient history, including allergies to Penicillin & previous antibiotic treatment.
	Urine	U	MIC	U	Sterile Container AND Boric Acid Tube	Indicate type of collection. Transfer to Boric Acid Tube within 2 hour of collection at room temperature or with 12 hours if refrigerated	3 days		Indicate if patient is pregnant or a Kidney Transplant recipient. Transfer from Sterile container to Boric Acid Tube with sterile pipette. Mix well to dissolve tablet. Referred to SPH – send refrigerated.
	STERILE SITE SPECIMEN:								
	Blood Culture	B	MIC	B	BacT Alert aerobic and anaerobic bottles	Follow information on collecting blood cultures in Section 7.4	7 days	Deliver to laboratory IMMEDIATELY DO NOT refrigerate	Deliver to laboratory as soon as possible (STAT testing) – Bottle incubation performed at WGH Gram Stain done at WGH on Positive Blood Culture Bottles Fungal Culture requests on blood cultures will extend incubation to 21 days Positive bottles referred to SPH for testing – send room temp.
	Sterile Body Fluid	FLU	MIC	FLU	Sterile Container	Indicate source of collection	5 days	Deliver to laboratory IMMEDIATELY	Initial Gram Stain performed at WGH (except for Dialysate Fluids). Specimen referred to SPH on next available flight. CSF and Synovial fluid send at room temperature, all other sterile fluids send at 2-8 °C
	Tissue/Biopsy	CSWOUND	MIC	CSWOUND	Sterile Container	Indicate site of collection	3 days	Deliver to laboratory IMMEDIATELY	Referred to SPH – send refrigerated.

WGH Laboratory Test Reference

Blood	Culture								
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		Meditech (Lab Module)	Meditech (OE Module) <i>(WGH internal NON-Lab only)</i>		Preferred Specimen Container	Minimum specimen quantity	TAT (upon receipt at the testing Laboratory)	Specimen special instructions	Additional Comments NOTE: Ensure specimens are labelled with 2 unique identifiers and requisitions are completed in their entirety to ensure appropriate testing
Test Name	Test Code	OE Category	Test Code						
STOOL SPECIMENS: (If you suspect a Gastrointestinal (GI) Outbreak, please contact the Yukon Communicable Diseases Control office at 867-667-8323)									
C.difficile Antigen and Toxin	CDIFF	LAB	STCDIFF	Sterile Container	Loose or watery stools ONLY	2 hours		Deliver to laboratory as soon as possible, store specimen at 2-8 °C	Testing performed at WGH Deliver to laboratory immediately. Formed solid stools are not appropriate specimen types for testing and will be rejected.
Culture	CSST	LAB	CSST	Starplex Sterile Container with spoon		4 days		Deliver to laboratory as soon as possible, store specimen at 2-8 °C	Do Not contaminate with urine, water or soil. Referred to BCCDC- send refrigerated.
Ova and Parasite	STOP	LAB	STOP	SAF Fixative Container	Deliver to laboratory immediately	4 days		Deliver to laboratory as soon as possible, store specimen at 2-8 °C	Do Not contaminate with urine, water or soil. With spoon (attached to lid of sample container), add 2 or 3 spoonfuls of fresh sample to the liquid (SAF preservative) in the container. Mix well and screw lid on tightly. Referred to BCCDC - refrigerated
WOUND/ ULCER/ ABCESS CULTURE:									
Any site not considered a sterile location (includes aspirates, fluids, swabs and biopsies)	CSWOUND	MIC	CSWOUND	Copan eSwab or Sterile Container	Indicate source of location	3 days			Indicate if Superficial wound or Deep wound (>2cm deep) Do not send syringe filled with Fluid, please transfer to sterile container and label with patient information
VIROLOGY: (If you suspect an Influenza-Like-Illness (ILI) or COVID-19 Outbreak, please contact the Yukon Communicable Diseases Control office at 867-667-8323)									
COVID-19 (WGH) – must follow the approved algorithm for onsite testing	WGH-COVID	MIC	WGH-COVID	Copan UTM (Red) swab OR Starplex Multitrans NP (blue) swab	Aptima swabs ARE NOT an acceptable collection device	4 hours		Deliver to laboratory IMMEDIATELY	This testing is for onsite testing at WGH. Must meet approved algorithm for onsite testing. Confirmatory testing sent to SPH. If not collected with appropriate collection device, testing will be forwarded to BCCDC or rejected for recollection.
COVID-19 (BCCDC)	VIR-RESP	MIC	VIR-RESP	Copan UTM (Red)		24 hours		Deliver to laboratory IMMEDIATELY	Starplex Multitrans NP (Blue) swab may also be used Referred to BCCDC – send refrigerated

[RETURN TO MAIN MENU](#)

2.3 DCH and WLH Laboratory Test Menu: On-site Services

CHEMISTRY		HEMATOLOGY
Arterial Blood Gas	Potassium	Complete Blood Count with Automated 3 part Blood Film review Erythrocyte Sedimentation Rate (ESR) Prothrombin Time/ INR Rapid Malaria Screen
Bicarbonate	Sodium	
Blood Urea Nitrogen	Troponin	
Chloride	Venous Blood Gas	
Creatinine		
Glucose		
Lactate		
CARDIAC PROCEDURES		URINALYSIS & MISCELLANEOUS
Electrocardiograms		Urinalysis - macroscopic & microscopic
Holter Monitors		<ul style="list-style-type: none">Macroscopic testing includes: colour, appearance, glucose, bilirubin, ketones, specific gravity, blood, pH, protein urobilinogen, nitrite, leukocytesMicroscopic testing includes: RBCs, WBCs, epithelial cells, urine crystals, bacteria, mucus, amorphous sediment
		Drugs of Abuse (Urine)
		<ul style="list-style-type: none">Testing includes: Cocaine, Amphetamine, THC, Opioid, Methamphetamine metabolite, Oxycodone, Benzodiazepines, Fentanyl, Buprenorphine
		Pregnancy test (Urine)
		Fetal Fibronectin Test

2.4 DCCH AND WLCH LABORATORY TEST REFERENCE

This reference document provides instructions for each test run at DCCH and WLCH Laboratory:

- Meditech codes (both through the LAB module and the OE module)
- Preferred specimen container
- Specimen type and Minimum specimen quantity
- TAT (Turn Around Time from time of receipt in the Laboratory)

NOTE: Testing performed onsite is considered STAT. All remaining tests will be referred to WGH or other referral testing facilities. Turnaround time for these tests is from receipt at the testing facility. Please refer to [WGH Laboratory Test Reference](#) for WGH on site testing turnaround times.

- Analyzer (the method in which testing is performed)
- Special instructions

DCCH and WLCH Laboratory Test Reference

<div>Blood</div> <div>Culture</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>									
		Meditech (Lab Module)	Meditech (OE Module) (WGH internal NON- Lab only)		Preferred Specimen Container	Minimum specimen quantity and special instructions	TAT (upon receipt at the testing Laboratory)	Analyzer	Additional Comments NOTE: Specimens should be gently inverted immediately after collection
Test Name		Test Code	OE Category	Test Code					
CHEMISTRY	Arterial Blood Gas CG4 + (pH, pO ₂ , pCO ₂ , Lac)	CG4 ART	DWLAB	CG4 ART	ABG Syringe	0.5 mL of whole arterial blood	≤ 1 hour	iSTAT CG4+	
	Chemistry Panel CG8+ (Na, K, CL, CO ₂ , Glu, BUN, Crea, Hct)	CHEM8+	DWLAB	CHEM8+	PST (Mint-green top)	0.5 mL of lithium heparin whole blood	≤ 1 hour	iSTAT CHEM8+	If doing comparison or critical result confirmation, PST tube must be centrifuged within 2 hours of collection and plasma transferred to an aliquot tube and label with patient information.
	Troponin (cTnI)	CTNI- ISTAT	DWLAB	CTNI- ISTAT	PST (Mint- Green top)	0.5 mL of lithium heparin whole blood	≤ 1 hour	iSTAT cTnI	Do not use direct skin puncture for testing
	Venous Blood Gas CG4 + (pH, pO ₂ , pCO ₂ , Lac)	CG4 VEN	DWLAB	CG4 VEN	PST (Mint- green top)	0.5 mL of lithium heparin whole blood	≤ 1 hour	iSTAT CG4+	Fill vacutainer completely to ensure valid results.
HEMATOLOGY	Complete Blood Count with Automated 3 Part Differential	CBC- POCH	DWLAB	CBC- POCH	EDTA (lavender top)	2 mL EDTA whole blood Gently invert specimen 8-10 immediately after collection	≤ 1 hour	PoCHi	Make a minimum of 2 Blood Films. Blood films must be made within 6 hours of collection. Refer to How to Prepare a Blood Film
	Erythrocyte Sedimentation Rate (ESR)	ESR	DWLAB	ESR	EDTA (lavender top)	2 mL EDTA whole blood Gently invert specimen at least 12 times immediately after collection.	≤ 1 hour	Dispette	Specimens may be refrigerated up to 24 hours, specimens should return to room temperature for 15 minutes before testing. ESR pipette must remain motionless (away from vibrating machinery), at a constant temperature (18-25 °C), and protected from sunlight during testing.
	Prothrombin Time/INR	PT INR	DWLAB	PT INR	Red Top Tube	1 mL of whole blood (no anticoagulant) OR can use direct skin puncture	≤ 1 hour	iSTAT INR /PT	Collect a Sodium Citrate (Blue top) for conformation testing at WGH laboratory
	Rapid Malaria Screen	MAL	LAB	MAL	EDTA (lavender top)	2.0 EDTA whole blood Thick and Thin Blood Films (Must be made within 1 hour of collection)	≤ 1 hour	Binax Kit	CBC must be ordered with this test. Must provide travel history: countries visited, dates. Call Laboratory for more information. Blood films (thick and thin) must be made within 1 hour of collection.
URINE AND MISCELLANEOUS	Urinalysis (includes Macroscopic & Microscopic)	UA	DWLAB	UA	Urine container	10 mL of freshly voided urine	≤ 1 hour	Status Analyzer	
	Drugs of Abuse (Urine)	UDOA	DWLAB	UDOA	Urine Container	2 mL of freshly voided urine	≤ 1 hour	Sure Step 9 Test kits	UDOA includes Fentanyl screen
	Methamphetamine (Urine)	Not orderable		Not Orderable	Urine Container	2 mL of freshly voided urine	≤ 1 hour	MultiDrug One Step Screen Test Panel	This test is ordered verbally, please contact laboratory
	Pregnancy Test (Urine)	UHCG	DWLAB	UHCG	Urine Container	2 mL of freshly voided urine	≤ 1 hour		
	Fetal Fibronectin	FFN	DWLAB	FFN	FFN Swab	Follow kit instructions	≤ 1 hour	FFN analyzer	Send swab to Laboratory immediately at room temperature, if there is a delay in transit, please refrigerate. Keep tube upright position while in transit.

[RETURN TO MAIN MENU](#)

3.1 PATIENT IDENTIFICATION

YHC has a policy (PC-100) that outlines the requirements for verification of correct patient identification. Correctly identifying the patient is essential to patient safety. Patient misidentification can have a wide range of undesirable consequences for patients, including errors that result in serious and irrevocable harm.

Under this policy two patient identifiers are used for patient identification to ensure all patients are positively identified prior to procedures or diagnostic testing.

Patient identification will be confirmed using the following process.

A. Outpatient Setting:

1. Government issued ID (e.g. Health care card, Driver's license, First Nations Status Card) must be presented at the Outpatient visit.
2. Verbally confirm the patient's identity using a minimum of two (2) Patient Identifiers:
 - Patient's last and first name
 - Date of birth
 - Healthcare number

B. Inpatient Setting (including Emergency Patients)

1. Admitted patients require an identification (ID) armband that is legible, preferable water resistant and computer generated.
2. Inpatient ID armbands must be applied by a staff member who has confirmed the patient's identity according to Policy PC-100. (This is not a laboratory staff member)
3. Ask the patient their full name and date of birth; check this information against the ID armband. Compare other identifiers (i.e. Healthcare Number, Chart Number, etc.) if available.
4. Compare two (2) Patient Identifiers on the computer generated specimen label with the information on the ID armband.

NOTE: Laboratory Staff will **not** collect blood from inpatients with missing or illegible ID armbands. In exception, where a clinical condition prevents a patient from wearing an identification armband, the Laboratory Staff will obtain the identification of the patient from the attending nurse or physician before blood collection.

NOTE: Additional Patient identification steps are required for **Transfusion Medicine** specimens see [Patient Identification for Transfusion Medicine](#) for more details.

3.2 SPECIMEN LABELLING

Label specimens **immediately after collection** and in the **presence of the patient**. Label specimens with at least two (2) patient identifiers and information about the collection process (preferably use the computer generated specimen label).

- Record other pertinent collection information:
- Date and time of collection. It is acceptable to use the date format on a computer generated label provided it is accurate. Collection time is recorded using the 24hr clock format
- Collector (identity of individual collecting the sample), where required
- Specimen source (e.g. swab from urethra) where applicable.

Some of our testing is automated; computer scanners can be very particular about how labels and barcodes appear on the specimen. Valuable time is lost in specimen processing when laboratory staff must re-position labels. Please follow the guidelines below.

NOTE: The actual specimen should be visible at all times in its container. Ensure a 'window' of visibility remains. Cover the manufacturer's label if needed.

Blood collection tube labels:

Affix labels to blood collection tubes as follows:

- Position labels such that the Patient's name begins near the coloured cap of the collection tube
- Cover the original tube label such that **a portion of the blood specimen is visible** (to verify quantity and quality)
- Mint-green (PST) and Gold (SST) top collection tubes: ensure a small portion of the **original tube label colour is visible** (once coloured caps are removed for analysis, they are recapped with non-specific generic caps- tube label colour is necessary information for technologists)
- Ensure the **label isn't crooked & doesn't surpass the tube's length**- our analyzers may reject the specimen or labels may be ripped off when placed in racks



In the laboratory: coloured caps are removed for analysis & tubes recapped with non-specific caps. If add-on tests are ordered, label colour is required to ensure proper specimen type is utilized for the add-on testing

NOTES:

- Always affix labels in the presence of the patient immediately **AFTER** the specimen has been collected.
- **Never** affix labels to collection tubes prior to collection
- These standards reduce the chances of improper labeling.

Specimens that are not labelled properly can lead to serious patient harm, including death.

3.3 ACCEPTANCE CRITERIA FOR REQUISITIONS

It is the submitting client's responsibility to ensure that requisitions are **filled out completely, accurately and legibly**.

NOTES:

- Failure to do so could mean delays in processing and testing of Patient specimens.
- Illegible requisitions will be sent back to the physician for clarification – specimens may be rejected if no response is received from the physician with business 24 hours.

NOTE: Delayed testing may affect the ability to report out select results.

Acceptance Criteria for Requisition Forms	
Patient Information (minimum of 2 unique identifiers)	Complete Name (Surname & Given Name as it appears on Health Card)
	Health Care Number
	Date of Birth (DD/MM/YYYY)
	Gender (not a unique identifier)
Ordering Physician	Complete Name (first and last)
	Physician Billing Number (MSC)
	Fax Number (if outside Yukon)
Copies To	Doctor (first and last) or facility
	Billing Number or Facility Number
	Fax number (if outside Yukon)
Date and Time of Collection	If patient collects specimen, remind them to complete
Tests Ordered	Test Requested
	Specimen Type
	Any relevant clinical or travel history
Specimen Type (for referred in specimens)	Blood: if decanted from original tube, specify serum, heparinized plasma, citrated plasma, or whole blood. Transport Temperature: specify if room temp, refrigerated or frozen (document on tube and requisition)

NOTE: It is essential to have complete physician identification to ensure correct reporting as there are multiple physicians with similar or same last names.

Quality Results Start with Quality Ordering.

3.4 SPECIMEN REJECTION POLICY

The WGH Laboratory reserves the right to delay or cancel testing on specimens that have been improperly collected, labelled, processed, stored or transported, and illegible writing.

The Laboratory shall take measures to maintain specimen integrity while following up on the receipt of an inadequate specimen. Please note that the large number of specimens received by the Laboratory makes it impossible to positively identify specimens that are not clearly labelled in accordance with the [specimen identification criteria](#).

Specimen rejection criteria for Transfusion Medicine adhere to the same criteria listed below as well as failure to comply with the [Specialize Patient Identification and Specimen Labelling Instructions in section 6.1.1](#).

The WGH Laboratory recognizes that if the specimen: is less common, involves an invasive procedure, or could not otherwise be easily recollected, it may be acceptable to apply an exception to specimen rejection. Upon receipt of specimens that do not provide the information listed above, an **Irreplaceable Sample Identification Record Form – ACC10F** will be initiated, sent to the ordering physician or clinic for completion and returned to the laboratory.

SPECIMEN REJECTION CRITERIA:

Specimens may be rejected for the following reasons:

- Unlabelled specimen
- Incorrect container or preservative
- Insufficient specimen for procedure(s)
- Unsuitable specimen for procedure(s).
- Blood specimen hemolyzed
- Blood specimen not centrifuged within 2 hours of collection
- Improper transportation conditions
- Other reasons that may affect the quality of a result

A. Unlabelled Specimens

- Common specimen types (blood, urine, swabs, sputum, stool, etc.) will require recollection.
- Less common specimens that are more difficult to recollect (CSF, fluids, tissues, etc.) require the Physician who collected them to come to the Laboratory to identify the specimen and complete the Irreplaceable Sample Identification Record - ACC010F (WGH Laboratory Specific policy). The Physician assumes responsibility for the identification of the specimen.
- If the person responsible for collecting the specimen is unable, with certainty, to identify the specimen, the appropriate Clinical Care Manager, designate and Ordering Physician will be notified.

B. Incorrectly Labelled (Mislabelled) Specimens

- If the patient's name, date of birth or health care number conflict with those recorded on the Requisition, the Unlabelled Specimen criteria apply.
- If only one patient identifier appears on the specimen or Requisition, the Unlabelled Specimen criteria will apply.
- Specimens labelled with one patient's name and sent with the requisition of another patient will be classified as mislabelled, the Unlabelled Specimen criteria will apply.
- Specimens with patient names misspelled, but with correct health care number and D.O.B. will have a notation accompany the patient report. Procedures ordered may be performed after every effort is made to confirm spelling. These errors cause delays in specimen processing.

C. Incorrect Container or Preservative

Recollection is required for specimens received in an incorrect container, or with/ without the appropriate preservative (e.g. a blood collection in the wrong collection tube). These errors can lead to invalid results.

D. Insufficient Specimen for Procedure(s)

Recollections will be requested when there is insufficient specimen to provide results for all tests ordered. Procedure(s) for which there is sufficient specimen will be performed.

E. Unsuitable Specimen Type for Procedure(s)

Specimens will be rejected if the specimen collected is unsuitable for the test requested (e.g. saliva for sputum tests, urine for blood tests).

F. Blood Specimen Hemolyzed

Hemolyzed blood specimens will be rejected. Free hemoglobin in the hemolyzed blood specimen interferes with the accuracy of most test results. Refer to the section on [Hemolysis](#) for more details.

G. Blood Specimen not centrifuged within 2 hours

Specimens requiring centrifugation should be spun within 2 hours of collection and will be rejected if not spun within 2 hours. Follow the manufacturers guide lines for the tube type (e.g. SST tube should rest 30 minutes prior to centrifugation)

H. Improper Transport Conditions

Specimens will be rejected if they are subjected to improper transport conditions. Examples include whole blood specimens that are frozen during shipment and blood specimens for LDH that are not transported at room temperature.

NOTE: Frozen plasma/serum specimens that arrive thawed may not provide accurate results and are treated with caution, based on the specific circumstances.

I. Specimen Too Old to Process

Specimens will be rejected when it has been in transit too long for obtaining valid results. Time sensitivity varies for each test. Contact the Laboratory if you are uncertain about the viability of a specimen. Every effort should be made to transport specimens to the Laboratory as soon as they are collected.

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4.1 HYPERLINKED LIST OF REQUISITIONS

The following table provides a list of the most frequently used requisitions. Each is hyperlinked to a copy of the requisition online. This table of links is also available on the [YHC website](#) (Yukon Hospital website, located under the Health Professionals tab, in the sub-category of Tests & Scans)

Be aware that Referral Laboratories may update their websites and links to requisitions may inadvertently be lost. If you notice any broken web links, please inform the Laboratory Manager at WGH Laboratory (867-393-8767) as soon as possible so we can update our webpage links.

Infrequently ordered tests (e.g. specialized molecular genetic testing) may require a requisition not listed in the table- please phone the Laboratory to discuss requirements.

Hyperlinked List of Requisitions

Requisition Title (Header)	Site of Testing	Types of Tests Run
WGH Laboratory- On Site Testing	Whitehorse General Hospital	Blood, Urine, Fluid Tests; ECG and Holter Monitor Procedures
WGH Laboratory- Referred Out Testing	St. Paul's Hospital Vancouver General Hospital BC Children's Hospital	Blood & Urine tests Blood tests Blood tests
WGH Microbiology Laboratory	Whitehorse General Hospital and St. Paul's Hospital	Culture & Sensitivity, Gram stain, and molecular testing
Holter Monitor	Interpretation: Cardiology Unit at St. Paul's Hospital	Holter Monitor
FIT Testing Requisition	Whitehorse General Hospital	Colorectal Cancer Screening
BCCA Gynecological Cytology Requisition Form	Cervical Cancer Screening Laboratory, Vancouver BC	Cancer Screening (Pap smear samples)
PHSA Laboratories Tumour Marker Lab Requisition	BC Cancer Agency (BCCA)	Tumor Markers
BCCDC Serology Screening Requisition	BC Centre for Disease Control	Prenatal Screening; HIV, Syphilis, Hepatitis
Canadian Blood Services- Diagnostic Services- Perinatal Screen Request	Canadian Blood Services, Vancouver	Perinatal Screening
Prenatal Genetic Screening Laboratory Requisition	Prenatal Biochemistry Laboratory, BC Children's & BC Women's Hospital	Serum Integrated Prenatal Screen (SIPS)
Harmony Prenatal Test	Dynacare	Prenatal cell free DNA (restrictions apply)
LifeLabs Specific Allergen IgE Request	LifeLabs, BC	Allergen IgE
BCCDC Virology Requisition	BC Centre for Disease Control	Viruses- as detected from various tissue specimens
BCCDC Bacteriology & Mycology Requisition	BC Centre for Disease Control	Respiratory Infections (e.g. pertussis), Gastrointestinal Infections, Mycology
BCCDC Parasitology Requisition	BC Centre for Disease Control	Parasites- as detected from various tissue specimens
BCCDC Mycobacteriology/ TB Requisition	BC Centre for Disease Control	Mycobacteria- as detected from various tissue specimens (AFB testing)
BCCDC Zoonotics Diseases & Emerging Pathogens Requisition	BC Centre for Disease Control	Zoonotics & Emerging Pathogens
St. Paul's Hospital Department of Pathology Surgical Requisition	St. Paul's Hospital	Pathology specimens
BCCA Diagnostic Cytology Requisition	PHSA & BCCA	Cytology samples, various (**not for WGH In-patient specimens – send to SPH**)
Molecular Genetics Laboratory Requisition	BC Children's & BC Women's Hospital (test directory), Molecular Genetics Laboratory	Molecular Genetics
Cancer Genetics Laboratory Myeloid Testing Requisition	BCCA Department of Pathology and Laboratory Medicine	Cytogenetics (FISH) and Molecular testing, Myeloid & other
Cytogenetics Laboratory Requisition Constitutional Studies	Vancouver Coastal Health/ (Gordon and Leslie Diamond Health Care Centre - Vancouver General Hospital)	Cytogenetics Constitutional Studies

4.2 CREATING STANDING ORDERS FOR OUTPATIENTS

Procedure:

- Fill out the appropriate requisition for the required test(s):
 - Paper Requisitions:** write on the requisition that this is a “Standing Order” and include the frequency of testing and how long the standing order is in place
NOTE: The standing order is only valid up to a maximum of 1 calendar year (365 days)
 - Plexia:** Indicate by ✓ “Standing Order - Expires” – Complete the expiry date.
NOTE: The standing order is only valid up to a maximum of 1 calendar year (365 days)
- The Patient is responsible for bringing their Requisition to the Laboratory each time they come for their Outpatient appointment.
 - Laboratory staff will make a photocopy of the Requisition each time that will remain with the specimens.
 - The patient retains the original up to the expiry date.

NOTES:

- Once expired, a new request form will need to be completed.
- Results will only be sent to the Ordering Physician and other listed physicians on the standing order.
- Only tests listed on the Standing Order will be completed.
- If additional tests are needed at a given time, Physician must complete a separate Requisition.

4.3 ADD-ON TESTS

Purpose: When another test needs to be added to an existing order. The original specimen, if stored, may be used for additional tests. Due to specimen stability and storage requirements (temperature, light, etc.) not all Add-On tests can be performed.

*****NOTE: Tests will NOT be added on to Outpatient specimens referred from Yukon Communities *****

Length of time that specimens are stored at WGH Laboratory varies, but in general:

Specimen Type	Department	Length of time stored (after original testing completed)
Plasma/Serum/Fluid	Chemistry	7 days
EDTA whole Blood/Fluid	Hematology	3 days
Sodium Citrate Plasma	Coagulation	24 hours
Urine	Positive Drugs of abuse	Frozen for 1 month
	Urinalysis	2 hours at room temperature 12 hours refrigerated

Collection Location	Add-on Requests
Whitehorse	Will be processed in accordance with established guidelines
Dawson City & Watson Lake	Will be processed in accordance to established guidelines
All other Territorial locations	No add-on testing will be processed. A new order and specimen will need to be collected and submitted to WGH Laboratory

Procedure:

- Phone the Laboratory to verbally indicate the need for additional tests.
- Fax the **On-Site Test Requisition** to the Laboratory at 867-393-8772. The Requisition should be clearly marked: “Add on to specimen drawn on [date]”

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5.1 VENIPUNCTURE: BEST PRACTICES

YHC Laboratories follow guidelines and procedures for venipuncture outlined by the Clinical and Laboratory Standards Institute (CLSI).

Supplies Required for Venipuncture

- Needles of various gauges
 - straight needles 20g, 21g
 - butterfly, winged needle 21g, 23g (should be used sparingly and only when required)
- Skin cleanser
 - 70% Isopropyl Alcohol wipes
 - Non-Alcohol based wipe for Alcohol collections (only performed at WGH)
 - 70% Isopropyl Alcohol wipes and Chlorohexidine: [Blood Cultures](#)
- Gauze Pads (Do not use cotton balls)
- Gloves
- Tourniquets (Disposable)
- Sharps Container
- Disposable Needle Adapter
- Vacutainer Tubes/Blood Culture bottles as required
- Syringe (difficult draws)
- Bandage/Adhesive Tape

The following table provides an overview of the phlebotomy and specimen labelling procedure.

A. Pre- Phlebotomy	1.	Prepare/Generate labels for each test
	2.	Wash hands
	3.	Don gloves
	4.	Assemble other supplies (see supplies required for venipuncture)
B. Phlebotomy Procedure	1.	Identify the Patient using 2 unique identifiers (refer to Patient Identification) NOTE: resolve any discrepancies prior to proceeding
	2.	Ensure the Patient is aware of the venipuncture procedure (Answer any questions or concerns)
	3.	Verify diet restrictions & medication schedule
	4.	Create safe work environment: ergonomics
	5.	Reposition the Patient's arm
	6.	Select the best venipuncture site
	7.	Apply the disposable tourniquet
	8.	Cleanse the venipuncture site NOTE: Allow to air dry, do not fan or wipe with gauze.
	9.	Perform Venipuncture and ensure: <ul style="list-style-type: none"> a. Correct Tube Selection b. Order of Draw c. Specimen Mixing:
	10.	Release Tourniquet after last tube is filling NOTE: Tourniquet should not be on for longer than 1 minute
	11.	Place gauze pad over venipuncture site and remove needle
	12.	Apply pressure to the Venipuncture site <ul style="list-style-type: none"> • Non-coagulation patient: 2 Minutes • Coagulation Patient: 5 Minutes
	13.	Dispose of needle in sharps container; dispose of tourniquet in garbage
C. Post- Phlebotomy	1.	Gently invert filled tubes to mix blood with tube contents
	2.	Ensure bleeding has stopped & bandage/tape the patient's arm NOTE: Do not bandage children ≤ 2 years of age
	3.	Label blood tubes in the presence of the patient ; record date and time of collection
	4.	Thank the Patient for their cooperation
	5.	Doff gloves
	6.	Wash hands
	7.	Prepare specimens for transport: centrifuge/ separate/ refrigerate, etc.
	8.	Send collection tubes & requisition to the Laboratory asap











Blood



Culture

5.2 ORDER OF DRAW, TUBE SELECTION AND SPECIMEN MIXING

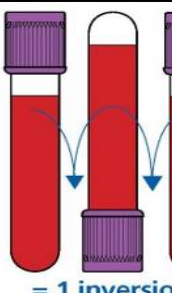
START
HERE

➔

	BLUE (Sodium Citrate)	DARK BLUE (Serum, No Additive)	RED (without Gel)	GOLD (with Gel)	LIGHT GREEN (Lithium Heparin w/ Gel)	GREEN (Sodium Heparin)	LAVENDER (plasma, EDTA)	PINK (plasma, EDTA)	DARK BLUE (K ₂ EDTA)	WHITE (EDTA w/ Plasma Separator)
	Sodium Citrate additive	No Additive	Clot activator no gel separator	Clot activator with gel serum separator	PST	Lithium Heparin No gel separator	EDTA	EDTA	EDTA	EDTA with gel plasma separator
	Must FILL Tube	Used for Trace Elements (e.g. Copper)	Used for therapeutic drug monitoring	Used for referred out testing	Lithium Heparin with gel plasma separator	Used for Venous Blood Gas, Ammonia and Lactate	Used for Hematology (CBC)	Used for Transfusion Medicine	Used for Trace Elements (e.g. Chromium)	Not Used
	Invert 3-4 times to mix contents	Allow to rest 60 minutes for clot formation	Invert 5 times for clot activation	Invert 5 times for clot activation	Used for most routine chemistry	Used for Venous Blood Gas, Ammonia and Lactate	Invert 8-10 times	Invert 8-10 times	Mix 8-10 times	
	Used for Coagulation tests (PT/INR, PTT)	Similar to dark blue EDTA BUT has red triangle at top with red stripe down side of tube label	Allow specimen to rest 60 minutes prior to centrifugation	Allow specimen to rest for 30 minutes prior to centrifugation	Invert 8-10 times	Invert 8-10 times	Do NOT centrifuge		Similar to dark blue No Additive, be careful with selection	
	If using butterfly needle, draw initial blood into discard tube to remove air from line.	Specimen should remain upright after collection to minimize contact with stopper		Specimen will be rejected if delay in centrifugation over 2 hours	Centrifuge within 30 minutes of collection	Follow specific test instructions			Specimen should remain upright after collection to minimize contact with stopper	ACD-A (8.5 mL) Or ACD-B (6.0 mL)
		Refer to BCCH e-handbook for more information				Specimens for Lactate should be collected without the use of a tourniquet			Refer to BCCH e-handbook for more info	Used for Specialty Tests
						Can be used for routine chemistry if centrifuged and plasma removed from cells within 2 hours of collection				Invert 8-10 times
										Refer to specific referral facility for test specific instructions

Gently Invert (mix) tube by indicated number of times immediately after collection to ensure the anticoagulant or clot activator is mixed completely with the blood.



= 1 inversion

5.3 PEDIATRIC BLOOD VOLUME DRAW GUIDANCE

The **University of British Columbia- Children's & Women's Health Centre of BC Research Ethics Board (UBC C&W REB)** has provided the following guidelines for safe limits of total blood volumes collected from pediatric patients. ([CWREB 2013](#))

Blood volumes falling within the limits outlined below may be considered of minimal risk to otherwise healthy patients. Blood volumes above these limits or blood collected more frequently should be referred to a Pediatrician for review.

NOTE: Blood drawn from infants with risk factors must always undergo full review by a Pediatrician.

PEDIATRICS: MAXIMUM ALLOWABLE TOTAL BLOOD DRAW VOLUMES (CLINICAL + RESEARCH) CONSIDERED OF MINIMAL RISK				
Body Weight (Kg)	Body Weight (lbs.)	Total blood volume (mL)	Maximum allowable volume (mL) in one blood draw (= 2.5% of TBV)	Maximum allowable volume (mL) drawn over a 30 day period (= 5% of TBV) for outpatients only *note: must occur no more than 3 consecutive months
3	6.6	240	6	12
4	8.8	320	8	16
5	11	400	10	20
6	13.2	480	12	24
7	15.4	560	14	28
8	17.6	640	16	32
9	19.8	720	18	36
10	22	800	20	40
11-15	24-33	880-1200	22-30	44-60
16-20	35-44	1280-1600	32-40	64-80
21-25	46-55	1680-2000	42-50	64-100







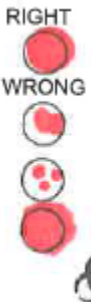

For **Safe Limits for Pediatric Patients with Risk Factors** consult a Pediatrician for expert advice.

5.4 SKIN PUNCTURE COLLECTION

Skin puncture blood collection tubes and cards, which are most often used for infant and pediatric collections, must be collected in a specific sequence to reduce the effect of micro clot formation in tubes. Fill the tube to the fill line to ensure the blood/additive ratio is correct, it is necessary for accurate results. Gently invert each tube, the required number of times, immediately after collection to adequately mix the blood additive.

NOTE: NEVER pour blood from one tube into another tube.

Skin Puncture Blood Collection Order of Draw

Order Of Draw	Micro tube or Card	Addition Information
1.		Radiometer heparinized capillary tube Collected ONLY by Medical Laboratory Technologist Mix 2-3 times using flea and magnet
2.		K ₂ EDTA tube Invert 8-10 times after collection
3.		Lithium Heparin Plasma with gel separator Tube may be amber or clear coloured Invert 8-10 times to mix after collection Protect from light for bilirubin tests (wrap in tin foil)
4.		Serum separator tube Tube may be amber or clear coloured Invert 5 times to mix after collection Protect from light for bilirubin tests (wrap in tin foil)
5.		Blood Spot Collection Card Single layer of red blood cells from one large drop should be applied to each circle.  Preferred puncture site is indicated by shaded areas on heel. <div style="display: flex; justify-content: space-around;"> <div> <p>RIGHT</p>  <p>WRONG</p>  </div> <div> <p>ACCEPTABLE Circle filled and evenly saturated</p> <p>UNACCEPTABLE Layering Insufficient, multiple applications Serum rings present</p> </div> </div>

5.5 FACTORS AFFECTING BLOOD TEST RESULTS

Proper specimen collection and handling techniques are critical for accurate test results. The following table summarizes errors that can occur in blood specimen collection and handling.

Blood Collection or Handling Technique	Potential Error	Correct Procedure
Not allowing alcohol to air dry after cleansing the venipuncture site	The introduction of alcohol into the specimen may cause hemolysis.	Allow alcohol to completely air dry on skin before drawing specimen.
Not following the order of draw	Contamination from other additives could interfere with test results. Plastic or glass serum tubes containing a clot activator may cause interference with coagulation testing.	Always follow correct order of draw (see above sections Order of draw or micro tube collections)
Improper mixing, including inadequate mixing or vigorously shaking tube after collection	Vigorous shaking of tubes can cause hemolysis Inadequate mixing can cause clotting or the presence of micro-clots.	Gently invert tubes for the specified number of times immediately after collection: Blue Top (sodium citrate) 3 to 4 times Gold Top (SST) 5 times All other (including PST- 8-10 times Light green top and EDTA- Lavender top)
Under-filling or over-filling tubes	The ratio of blood to additive is altered which can cause incorrect test results. Examples: <ul style="list-style-type: none"> Under-filling blue top sodium citrate tubes for coagulation testing can drastically alter results Over or under-filling blood culture bottles can result in false negative results. 	Allow tube to completely fill so vacuum is exhausted. Exception is blood culture bottles: allow the required amount of blood to enter bottle, using guide lines marked on bottle to determine appropriate fill volume. For correctly filled blue top sodium citrate tubes which contain a liquid anticoagulant, the ratio of blood to anticoagulant is 9:1, which is important for accurate test results.
Combining two partially filled tubes, or filling one type of tube from another type of tube	If two different types of tubes are used (e.g. lavender top tube into SST tube), incorrect additives can interfere with test results. If the same type of tube is used, the ratio of blood to additive is altered which can cause incorrect test results. Opening tubes can change the pH of the specimen which may affect the stability of the specimen and test results. In addition, opening tubes of blood without the use of protective equipment is a safety risk due to the possible production of aerosols or spillage.	NEVER combine two tubes. If blood stops flowing into the first tube before adequate volume is collected, collect a new tube. Leave tube lids on until necessary to remove for testing to maintain stability for some tests, prevent evaporation of specimen or spillage.
Using a partially filled tube when attempting another venipuncture	Loss of vacuum can cause insufficient draw. Delay in mixing specimen may cause clotting of specimen.	Always use a new tube when performing a second venipuncture
Leaving tourniquet on longer than one minute	Prolonged tourniquet application may result in hemoconcentration and erroneously increased levels of protein based analytes, packed cell volume or other cellular elements.	DO NOT leave tourniquet on for longer than one minute, remove as soon as possible after the blood begins to flow.
Using winged collection device (butterfly) and not removing air in tubing when blue top sodium citrate tube for coagulation is the first tube collected	Air in the tubing will reduce the amount of blood drawn and alter the blood to anticoagulant ratio, and can cause incorrect test results.	Use a discard tube (either another blue top sodium citrate tube or a BD discard tube) to remove the air from the tubing before collecting specimens into the blue top tube.
Not using approved procedures for collection from a vascular access device- e.g. IV line (NOTE: laboratory staff are not authorized or trained for this type of collection)	Potential contamination of specimen due to inadequate flushing of line or improper preparation	If collecting from a vascular access device (IV line) always follow approved procedures.

Continued on next page...

5.5 FACTORS AFFECTING BLOOD TEST RESULTS cont'd

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Blood Collection or Handling Technique	Potential Error	Correct Procedure
Collecting below IV	Collection below an IV site can lead to contamination or dilution of specimen with IV fluid creating erroneous test results.	The IV infusion must be turned off for a minimum of three minutes before venipuncture from below the IV.
Using a syringe for specimen collection	Incorrect technique may cause hemolysis when transferring blood into the vacutainer tube. Using a syringe to force blood into tube (instead of allowing vacuum to draw the blood) can cause under-filling or over-filling)	Use blood transfer device to transfer blood to tube. Allow tube to draw blood from syringe until vacuum is exhausted. Never force blood into tube.
Excessive repositioning (probing) in and out of vein with needle	Probing can cause hemolysis Contamination with interstitial fluid can occur if the needle is not completely in the vein, which can cause incorrect test results. In addition, probing can cause patient nerve injury.	Ensure the needle is positioned correctly within the vein.
Traumatic venipuncture (slow draw)	Trauma can cause hemolysis Delay in proper mixing may cause clotting of specimen	Recollection of specimen is recommended
Improper Handling	Not handling specimens properly (Ex. Not placing specimens for certain test on ice) can cause incorrect test results.	Following the handling requirement for each test (refer to the WGH Laboratory Test reference for onsite testing or the referral site test reference for referred out testing).

5.6 HOW TO PREPARE A BLOOD FILM

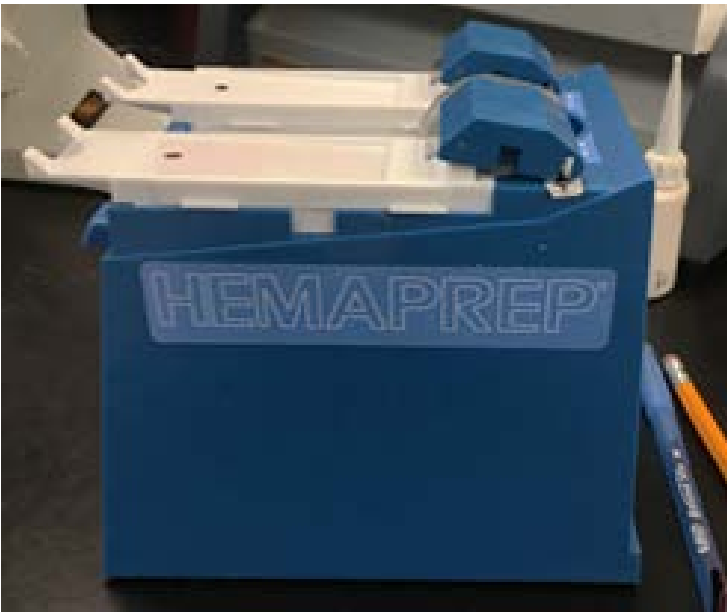
Blood films are required to be made within 6 hours of collection. It is expected that any CBC submitted for testing from Dawson City Community Hospital, Watson Lake Community Hospital or any of the Community Health Centres of the Yukon, be accompanied by a minimum of two (2) properly made and labelled blood films.



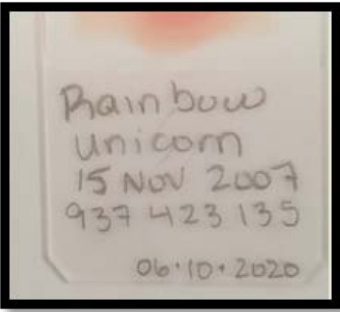
Use the described methods listed below to properly prepare a blood film.

A. Automated Hemaprep Technique

A properly prepared blood film is essential for accurate assessment of cellular morphology. If you are equipped with a **Hemaprep® Automated Blood Smearing Instrument**, ensure that you have read the [User Manual](#) and that the instrument is properly calibrated.

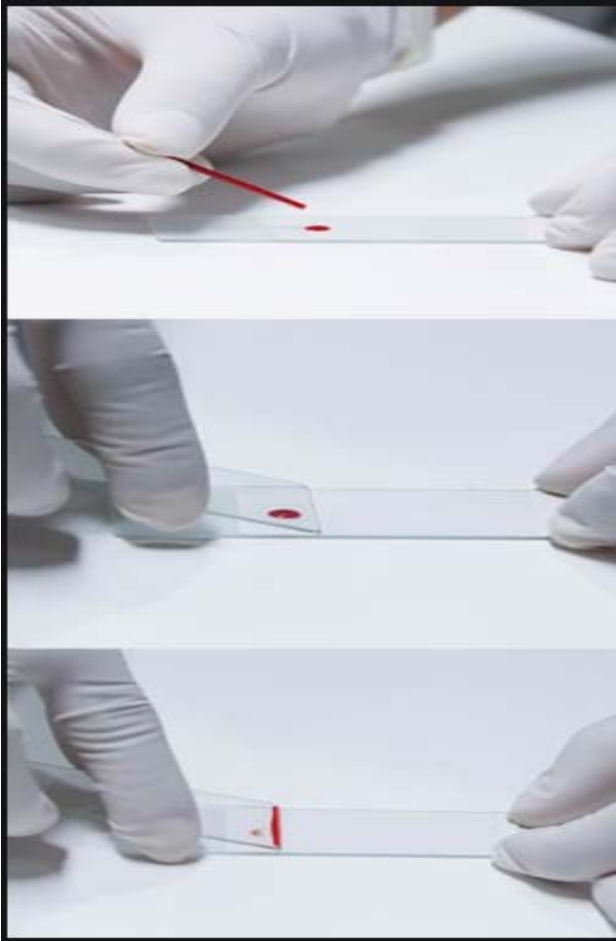
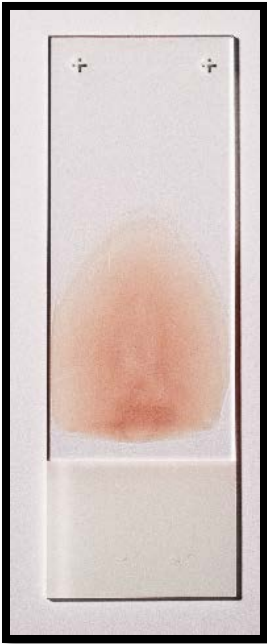
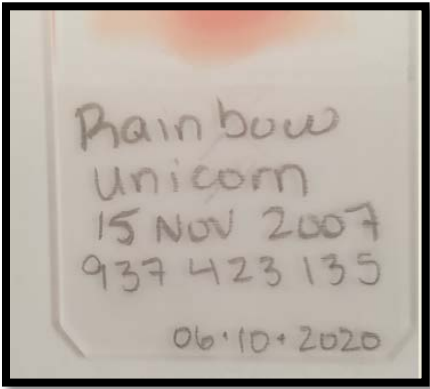
Here is a summary of **instructions for Hemaprep**:



Step	Action
1.	Place a clean slide into each slot with the frosted ends closest to you.
2.	Using a capillary tube or a Diff Safe blood dispenser, place a drop of EDTA whole blood at the target location indicated by black marks on the trays. 
3.	Gently but firmly depress the front lever. Release the lever as soon as it is fully depressed. The spreader blades move back to their home position, spreading the specimen and producing the required blood film. 
4.	Remove the slides. Using a pencil, label the slides with the patient's last and first name, date of birth and barcode number from the collection tube. 
5.	Lay slides flat on a clean dry surface to air dry.
6.	Clean the spreader blades (follow the user manual for directions).
7.	Place slides in a protective plastic slide holder to transport. Do not label the slide holder.



B. The Blood Film wedge technique:

Step	Action	
1.	Use two high-quality beveled-edge with one frosted end microscope slides- one serves as the blood film slide and the other as the spreader slide	
2.	Place a drop of EDTA whole blood, about 3 mm in diameter, near the frosted end of the slide. <i>The size of the drop is important- too large a drop creates very long or thick blood film; too small a drop often makes short or thin blood film.</i>	
3.	Place the spreader slide in front of the drop at a 30-45-degree angle to the blood film slide	
4.	Pull the spreader slide back into the drop of blood and hold it in that position while the blood spreads across the width of the slide	
5.	Quickly and smoothly push forward to the end of the slide to create a wedge blood film. <i>Moving the spreader slide too slowly accentuates poor leukocyte distribution by pushing larger cells (monocytes/ granulocytes) to the very end of the sides of the blood film. For higher-than-normal hematocrit, the angle between the slides must be lowered so that the blood film is not too short and thick. For extremely low hematocrit, the angle must be raised.</i>	
6.	Using a pencil, label the slide with the patient's last and first name, date of birth and barcode number from the collection tube.	
7.	Lay slides flat on a clean dry surface to air dry.	
8.	Place slides in a protective plastic slide holder to transport. Do not label the slide holder.	

A well-made peripheral blood film has the following characteristics:

1. About two-thirds to three-fourths of the length of the slide is covered by the blood
2. The feather edge (thin portion) is very slightly rounded, not bullet-shaped
3. Lateral edges of the blood film should be visible.
4. The blood film is smooth without irregularities, holes or streaks
5. When the slide is held up to light, the feather edge of the blood film should have a “rainbow” appearance
6. The whole drop is picked up and spread



Figure 1-2 Well-made peripheral blood smear. (From Rodak BF: Diagnostic Hematology. Philadelphia, WB Saunders, 1995.)

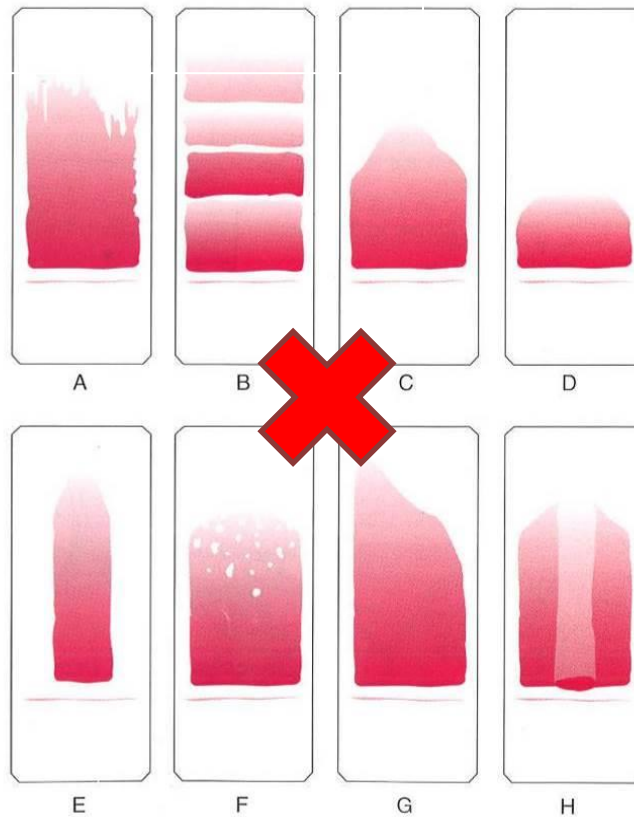
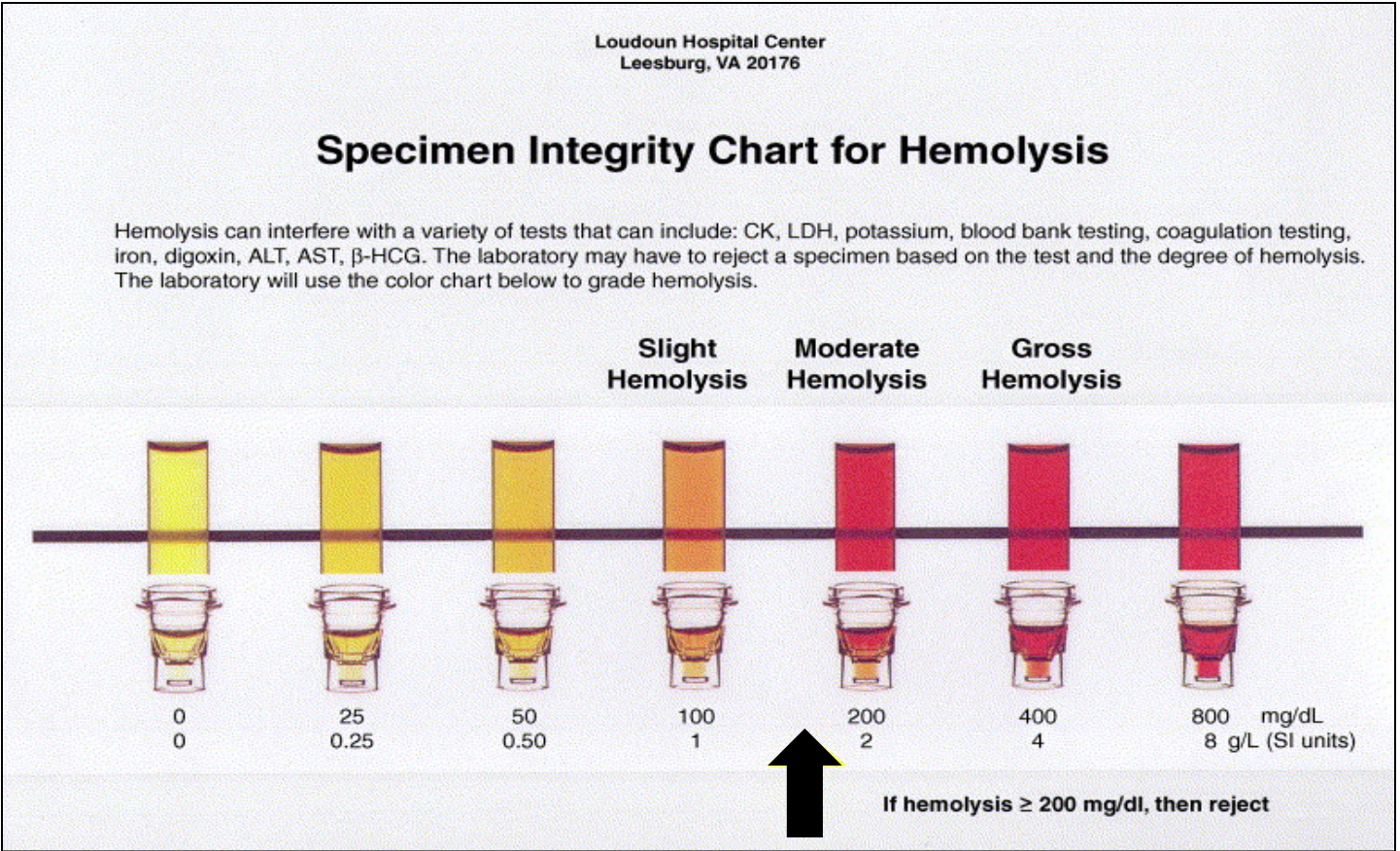


Figure 1-3 Examples of unacceptable smears. (From Rodak BF: Diagnostic Hematology. Philadelphia, WB Saunders, 1995.)

5.7 HEMOLYSIS

- Hemolysis, or the rupture of red blood cells, usually occurs during specimen collection and can result in rejection of a specimen. Possible causes of hemolysis include:
- unsecure line connections
 - contamination
 - prolonged tourniquet application
 - incorrect needle size (excessive suction can cause red blood cells to be smashed on their way through a hypodermic needle)
 - excessive suction from use of vacuum syringe (veins may collapse)
 - vigorous shaking of filled tubes
 - difficult collections (e.g. veins that are difficult to find; small, fragile veins in elderly patients)

NOTE: Experience and proper technique will prevent hemolysis.



From: Dugan et al. (2005)

[RETURN TO MAIN MENU](#)

6.1 PATIENT IDENTIFICATION IN TRANSFUSION MEDICINE

Positive patient identification is of utmost importance for transfusion medicine- errors can result in death.

Only specimens collected using the [WGH Blood Bank Identification Card](#) system will be used for crossmatching and transfusion purposes. This card is normally only available within Whitehorse General Hospital.

You **must** follow the **specialized patient identification procedure below** if you anticipate the patient may require blood components. Failure to properly identify the patient and properly label the Transfusion medicine specimens will result in specimen rejection.

6.1.1 Specialized Patient Identification and Specimen Labelling Procedure

Step	Action				
1.	<p>Identify the patient to be collected for Group and Screen and/or Crossmatch by comparing at least two (2) unique identifiers from the Lab Information System (LIS) generated labels or written order against the patient's Yukon Hospital Corporation (YHC) issued ID band. Unique identifiers include the patient's first and last names and at least one of the following: date of birth (DOB), Yukon Health Care Insurance Plan number (YHCIP) or two unique identifiers generated for an unidentified patient.</p> <p>NOTE: YHC ID band must be firmly affixed to the patient's body (usually wrist or ankle). Identification cannot be taken from a band that is near a patient but not attached to the patient.</p> <table> <tr> <th>IF</th><th>THEN</th></tr> <tr> <td>The patient is not wearing a YHC ID band</td><td>Ask the patient's nurse to acquire a band and attach it to the patient. If time does not permit acquiring a YHC ID band, have the identifying person (patient, family member or care provider, etc.) print their first and last names and sign the BBK ID Card</td></tr> </table>	IF	THEN	The patient is not wearing a YHC ID band	Ask the patient's nurse to acquire a band and attach it to the patient. If time does not permit acquiring a YHC ID band, have the identifying person (patient, family member or care provider, etc.) print their first and last names and sign the BBK ID Card
IF	THEN				
The patient is not wearing a YHC ID band	Ask the patient's nurse to acquire a band and attach it to the patient. If time does not permit acquiring a YHC ID band, have the identifying person (patient, family member or care provider, etc.) print their first and last names and sign the BBK ID Card				
2.	<p>Ask the patient for their full name and to state their date of birth.</p> <table> <tr> <th>IF</th><th>THEN</th></tr> <tr> <td>The patient is not able to respond</td><td>A competent person (family member or nurse) can provide positive identification</td></tr> </table>	IF	THEN	The patient is not able to respond	A competent person (family member or nurse) can provide positive identification
IF	THEN				
The patient is not able to respond	A competent person (family member or nurse) can provide positive identification				
3.	Perform phlebotomy using standard technique (refer to Venipuncture: Best Practices). Collect tubes for all requested testing, including two (2) 6 mL EDTA tubes (tall pink or lavender topped tubes) for Pre-Transfusion testing				
4.	<p>Affix a LIS generated label to each tube in such a way as to allow the contents of the tube and the tube type (EDTA) to be viewed (see Specimen Labelling)</p> <table> <tr> <th>IF</th><th>THEN</th></tr> <tr> <td>LIS generated labels are not available</td><td>Write the patient's first and last names and at least one of the following on the tubes: patient's DOB or YHCIP. Write the date and the collector initials on the tubes.</td></tr> </table>	IF	THEN	LIS generated labels are not available	Write the patient's first and last names and at least one of the following on the tubes: patient's DOB or YHCIP. Write the date and the collector initials on the tubes.
IF	THEN				
LIS generated labels are not available	Write the patient's first and last names and at least one of the following on the tubes: patient's DOB or YHCIP. Write the date and the collector initials on the tubes.				
5.	Affix a BBK ID label (small) from the BBK ID Card (see WGH Blood Bank Identification Card) to each tube in such a way as to allow the contents of the tube to be viewed and not cover required information				
6.	Label the BBK ID wristband strip with the patient's name, your initials and the date of collection. Detach strip from card and insert it into Ident-A™ brand Blood Recipient Band wristband sleeve				
7.	Affix completed wristband to patient's wrist (preferable) or ankle. Ensure it is not so loose that it could be removed without cutting it or so tight it becomes uncomfortable or reduces blood flow. Instruct the patient NOT to remove the band until that have been discharged from the hospital.				
8.	<p>Affix a LIS label to the BBK ID card</p> <table> <tr> <th>IF</th><th>THEN</th></tr> <tr> <td>LIS generated labels are not available</td><td>Write the patient's first and last names and at least one of the following on the BBK ID card: patient's DOB or YHCIP</td></tr> </table>	IF	THEN	LIS generated labels are not available	Write the patient's first and last names and at least one of the following on the BBK ID card: patient's DOB or YHCIP
IF	THEN				
LIS generated labels are not available	Write the patient's first and last names and at least one of the following on the BBK ID card: patient's DOB or YHCIP				

6.6 TEST: DIRECT ANTIGLOBULIN TEST (DAT)

This test is used to determine if the patient's red blood cells are abnormally coated with immune proteins (Antibodies and/or Complement).

It is ordered by a physician to rule-out certain autoimmune problems, transfusion reactions or incompatibility between mother and newborn.

6.7 TEST: CORD BLOOD INVESTIGATION

- Must be done on all infants born to Rh Negative mothers or mothers of unknown blood group.
- It includes a determination of ABO/Rh and a DAT.
- Collection requirements:
 - One 6 mL EDTA tube (lavender or pink stopper) or one 10 mL Red Top tube

6.8 TEST: TRANSFUSION REACTION INVESTIGATION

- Used to determine the cause of a suspected transfusion related adverse event. It must be initiated as soon as a reaction is suspected to determine the possible severity and therefore, morbidity/mortality for the patient. It will also determine if the transfusion can continue and identify future transfusion requirements.
- Please see the Patient Experience Policies on Blood and Blood Product Transfusion Guidelines for more information on recognizing and managing a Transfusion Reaction.
- Always order as STAT, notify a Laboratory Technologist at WGH Laboratory by phone.

6.9 BLOOD COMPONENT USES

- The "Circular of Information for the Use of Human Blood and Blood Components" from Canadian Blood Services describes various blood components and their intended use. Each patient area within the hospital should have a copy and it is also available on-line at:
<http://www.transfusionmedicine.ca>
- Refer to the following websites for more information:
 - <http://www.transfusionmedicine.ca>
 - <http://belite.transfusionontario.org/>
 - <http://www.traqprogram.ca/>
 - <http://www.blood.ca/>

6.10 BLOOD COMPONENTS AVAILABLE (IN STOCK) AT WHITEHORSE GENERAL HOSPITAL

- Red Blood Cell Units (Packed Cells)
[Note: Phenotyped blood for patients with antibodies and special red cell requirements (i.e. Irradiated) will need to be ordered from Vancouver and will require additional time].
- Frozen Plasma – requires 15 minutes to prepare
- Cryoprecipitate

NOTE: Platelets must be ordered from Vancouver as the need arises. Please allow a minimum of 24 hours for delivery. Platelets are to be ordered in "Adult Doses"; each dose should bring the platelet count up by approximately $20 \times 10^9/L$ in the absence of ongoing loss/consumption.

Blood	Culture							
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6.11 BLOOD PRODUCTS AVAILABLE (IN STOCK) AT WHITEHORSE GENERAL HOSPITAL

- Rh Immune Globulin (WinRho) - *see special notes below this list*
- 5% Albumin
- 25% Albumin
- Intravenous Immune Globulin (IVIG) – for specific diseases (IVIG Utilization Management Policy defines approval process)
- Hepatitis B Immune Globulin - for high risk neonates and Needle-stick patients
- *Varicella zoster* Immune Globulin – for high risk exposures
- Immune Serum Globulin – CMOH approval required (used primarily for high risk exposures to Measles)
- Recombinant Factor VIII – for specific hemophilia patients
- Recombinant activated Factor VII (NiaStase)
- Prothrombin Complex Concentrate (Octaplex) – for the immediate reversal of oral Vitamin K antagonist anticoagulants in specific circumstances or direct factor Xa inhibitor reversal

All other products must be ordered from Vancouver as the need arises. Please allow a minimum of 24 hours for delivery.

NOTE: Rh Immune Globulin

- See product insert or Fact Sheet in the **Patient Experience Policies** for administration procedures.
- Follow the **Prenatal Checklist** provided by Yukon Health and Social Services for testing schedule.
 - Standard 300 mcg (1500IU) does to be administered in entirety
 - Used for Rh Negative mothers to prevent immune Anti-D sensitization
 - It is given:
 - At 28 weeks gestation
 - Postpartum (as indicated by Cord Investigation)
 - After a Therapeutic Abortion
 - Post-amniocentesis
 - Threatened abortion/ miscarriage
 - Other- trauma, etc.

6.12 ADDITIONAL TM PROCESS NOTES

- Issue/Transfuse cards are issued with each unit by the Laboratory and must be **fully completed** and returned to the Laboratory.
- Please sign-out the crossmatched unit according to established protocol and ensure you leave the “ticket” from the bottom of the Issue/Transfuse card on the bench.
- Blood Products will only be picked up from the Laboratory by healthcare workers who have been oriented to the process.
- Empty blood product containers are to be retained on the ward for a minimum of four hours after the transfusion is complete, in case a Transfusion Reaction develops. They are not to be returned to the Laboratory unless a Transfusion Reaction is suspected.
- If units are not issued within 72 hrs or the patient is discharged; any remaining units will be cancelled and returned to the blood bank inventory.
- If the units are unmatched or full testing is not yet complete, the doctor ordering the transfusion must acknowledge the assumption of increased risk. This can be done by a signed notation in the patient chart.

DISCLAIMER:

This document summary is intended to provide general information only.

Please refer to **Patient Experience Policies or Blood Product Transfusion Guidelines or the [Clinical Transfusion Resource Guide](#)** for specific information about Transfusion Medicine procedures.

[RETURN TO MAIN](#)

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7.1 MICROBIOLOGY ANTIBIOGRAM

The Microbiology Antibioqram for the Yukon Territory is maintained and updated by St. Paul's Hospital Microbiology Department. The most recent version of the Antibioqram can be found on the Yukon Hospital website, for Health Professionals tab, under Tests & Scans or follow this link [ANTIBIOGRAM](#).

7.2 MICROBIOLOGY GENERAL SPECIMEN REQUIREMENTS

1. The quality of a Microbiology testing results is directly dependent on the quality of the specimen and the information provided on the specimen label and the requisition.

NOTE:

- There are no normal values in Microbiology.
 - An improperly collected specimen means inaccurate results.
2. Ensure that specimens are labelled with:
 - Patient's legal name (Last name, First Name),
 - Patient's health care number
 - Date of Birth DD/MM/YY (important for interpretation of Microbiology test results)
 - Date and Time of collection
 - The site (or type) of collection.
 3. Complete the [WGH Microbiology Requisition](#), including the following information:
 - Patient's legal name (Last name, First Name),
 - Patient's health care number
 - Date of Birth DD/MM/YY (important for interpretation of Microbiology test results)
 - Date and Time of collection
 - The site (or type) of collection.
 4. List any antibiotics presently in use or intended to be used on the Requisition, as well as a tentative diagnosis (e.g. R/O UTI). This will enable the Laboratory to set up special plates, techniques, etc. as needed.
 5. Transport to the Laboratory as soon as possible (see specific specimen requirements in the [WGH Laboratory Test Reference](#)).

7.3 URINE SPECIMENS FOR MICROBIOLOGY

Specimens may be collected in a number of ways. Please note on the requisition or electronically, the method of urine collection.

- A. Midstream Urine
- B. Straight line catheters (in/out catheters)
- C. Indwelling catheter
- D. Infant Urine Collection (U-Bag collection)

A. Midstream Urine Collection

1. Provide patients with Patient Instructions for [Midstream Urine collection](#)
2. Collect urine directly into a sterile urine container; do not use a urinal or bedpan or paper cup for collection.
3. Immediately after collection, transfer urine specimen into Boric Acid Tube using a sterile pipette, filling to the indicated fill line on the tube for transport.
NOTE: DO NOT handle or ingest the Boric Acid tablet. Should you touch the Boric Acid tablet to your skin, wash off immediately with plenty of water for 15 minutes. If you ingest the tablet, call poison control or physician immediately. (https://www.starplexscientific.com/resources/files/msds_urine.pdf)
4. Transfer of urine to the Boric Acid Tube should be done within 2 hours of collection but may be kept at 2-8 °C for 12 hours.
5. Mix well to ensure the Boric Acid tablet is entirely dissolved, and the specimen is thoroughly mixed.

B. Straight line Catheters (In/ Out Catheters)

1. Follow clinical care instructions for placement of Catheter
2. Collect the initial 15 to 30 mL of urine and discard it from the mouth of the catheter.
3. Collect a specimen from the mid or later flow of urine into a sterile container.
4. Immediately after collection, transfer urine specimen into Boric Acid Tube using a sterile pipette, filling to the indicated fill line on the tube for transport.
5. **NOTE:** DO NOT handle or ingest the Boric Acid tablet. Should you touch the Boric Acid tablet to your skin, wash off immediately with plenty of water for 15 minutes. If you ingest the tablet, call poison control or physician immediately(https://www.starplexscientific.com/resources/files/msds_urine.pdf)
6. Transfer of urine to the Boric Acid Tube should be done within 2 hours of collection but may be kept at 2-8 °C for 12 hours.
7. Mix well to ensure the Boric Acid tablet is entirely dissolved, and the specimen is thoroughly mixed.

C. Indwelling Catheter

1. Clean the catheter collection port with 70% alcohol wipe.
2. Using sterile technique, puncture the collection port with a needle attached to a syringe.
NOTE: Do not collect urine from collection bag.
3. Aspirate the urine, and place it in a sterile container.
4. Immediately after collection, transfer urine specimen into a Boric Acid Tube using a sterile pipette, filling to the indicated fill line on the tube for transport.
NOTE: DO NOT handle or ingest the Boric Acid tablet. Should you touch the Boric Acid tablet to your skin, wash off immediately with plenty of water for 15 minutes. If you ingest the tablet, call poison control or physician immediately. (https://www.starplexscientific.com/resources/files/msds_urine.pdf)
5. Transfer of urine to the Boric Acid Tube should be done within 2 hours of collection but may be kept at 2-8 °C for 12 hours.
6. Mix well to ensure the Boric Acid tablet is entirely dissolved, and the specimen is thoroughly mixed.

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D. Infant Urine Collection (U-Bag collection)

1. Wash the external genitalia
2. Follow the Instruction for [Attaching an Infant Urine Sample Collection Bag \(U-Bag\)](#)
3. Transfer urine from the bag immediately to a clean, sterile container
4. Transport to the Laboratory immediately

NOTE: This method is used to collect urine from newborns and those without bladder control (neonates and young toddlers). Because of the potential for contamination, this method is not a very effective method for ruling out UTI (due to contamination).

7.4 BLOOD CULTURES

Remember: To avoid contamination, Blood Culture specimens must be drawn **first**, before any other blood specimens. Blood Cultures are collected in sets, each set consisting of one aerobic & one anaerobic bottle; [refer to table below for correct volume](#) and number of sets. Plan [the order of draw](#) for blood cultures and other order tests accordingly.

Required supplies for Blood Culture Collection:

- Computer-generated labels (preferred) or Requisition
- Blood culture bottles set
 - One aerobic
 - One anaerobic
- Vacutainer tubes as required
- Needles
 - Butterfly, winged needle 21g
- Blood culture collection adapter cap
- Skin Cleanser
 - 70% Isopropyl Alcohol wipes
 - Chlorohexidine wipes
- Tourniquets (Disposable)
- Gauze Pads (Do not use cotton balls)
- Bandage/ Adhesive tape
- Gloves
- Sharps container

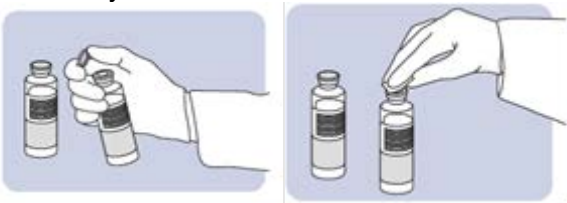
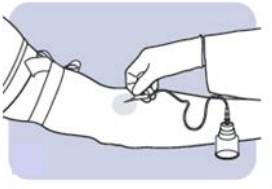


Blood

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7.4.1 Blood Volume Requirement for Blood Culture Bottles (Based On The Age Of The Patient)

AGE GROUP	FIRST SET		SECOND SET (from different vein site)		TOTAL VOLUME	Addition Notes
	Aerobic: Volume (bottle type)	Anaerobic: Volume (bottle type)	Aerobic: Volume (bottle type)	Anaerobic: Volume (bottle type)		
Newborn	0.5 mL Pediatric (PF Plus) Yellow	N/A	N/A	N/A	0.5 mL	DO NOT use Yellow Pediatric bottles on Adults
< 1 year	1.0 mL Pediatric (PF Plus) Yellow	N/A	N/A	N/A	1 mL	
1-6	3– 4mL Pediatric (PF Plus) Yellow	N/A	N/A	N/A	3-4 mL	
7-12	8 – 10mL Aerobic (FA Plus) Mint Green	8– 10mL Anaerobic (FN Plus) Orange	N/A	N/A	16-20 mL	Only collect one set.
≥ 13	10 mL Aerobic (FA Plus) Mint Green	10 mL Anaerobic (FN Plus) Orange	10mL Aerobic (FA Plus) Mint Green	10 mL Anaerobic (FN Plus) Orange	40 mL	Always collect green bottle first. Collect 2 sets (4 bottles) from 2 separate sites (e.g. right arm and left arm)
FUNGAL	(skinny neck bottle)	N/A	N/A	N/A	10 mL	
	10 mL 'Myco' bottle					


7.4.2 How to Collect Blood Culture Bottles

Step	Action
1.	Confirm the identity of the patient using two (2) unique identifiers. Ensure the computer generated tube labels are accurate
2.	Perform hand hygiene.
3.	Assemble required supplies
4.	<p>Prepare the blood culture bottles:</p> <ol style="list-style-type: none"> Ensure integrity of each bottle- (sensor on the bottom should be grayish-green; yellow-coloured sensor indicates the broth is contaminated & bottle must be discarded). Check the expiry date & discard if necessary. Mark the desired fill volume level on each bottle- see Blood Volumes table. 10 mL of blood per bottle is optimal for adults (bottles are pre-marked with 5mL increments) Remove protective plastic cap on bottles; sterilize rubber septum with 70% alcohol wipe and let air dry for 1 minute 
5.	Perform hand hygiene
6.	Don gloves
7.	Apply tourniquet and locate vein. Once vein has been located release the tourniquet to avoid hemodilution.
8.	<p>Cleanse the site first with a 70% alcohol swab followed by a chlorohexidine swab. Use a radiating circular motion, from vein site outwards, cleaning area for 30 seconds per swab. Allow to air dry (approximately 30 seconds), do NOT fan dry or use gauze to dry site.</p> <p>NOTE: Do not re-palpate the vein before venipuncture.</p>
9.	Re-apply the tourniquet.
10.	<p>Perform venipuncture.</p> 
11.	<p>Attach the aerobic (green) bottle to the collection adapter cap and hold the cap down on the bottle. Using the fill indicator line you marked, obtain the needed volume of blood. Remove the adapter cap from the bottle and attach it to the anaerobic (orange) bottle. Obtain the needed volume of blood.</p> <p>NOTE: Once blood flow is established release tourniquet (less than 1 minute).</p>  <p>NOTE: If additional blood is required for other tests, draw them after the blood culture bottles are filled, following the Order of Draw Guide</p>
12.	<p>Cover the venipuncture site with gauze and terminate the venipuncture. Apply pressure to the site, bandage site and dispose of butterfly needle in the Sharps container. Dispose of the disposable adapter cap in the garbage.</p> 
13.	Mix bottles by gentle inversion 4-5 times. Any other Vacutainer Tubes should be mixed according to the manufacturers guidelines for the tube type.

Continued on next page...

7.4.2 How to Collect Blood Culture Bottles Cont'd

...continued from previous page

Step	Action
14.	Label the specimen bottles- in the presence of the patient- with prepared labels. Please follow guidelines in the next section: How to Label Blood Culture Bottles as there is a special protocol for the automated analyzer.
15.	Repeat this collection process (steps 1 -13) from another vein site for a second set. NOTE: AFTER collection, wipe off any external blood with an alcohol pad 
16.	Place labelled specimens in a plastic biohazard bags, place the requisition in the outer sleeve of the bag and prepare for transport using TDG protocols.
17.	Doff gloves.
18.	Perform hand hygiene.
19.	Keep blood cultures at room temperature prior to and during transport. Deliver to the Laboratory immediately. (Blood Cultures can be sent to the Laboratory via the Pneumatic Tube System)

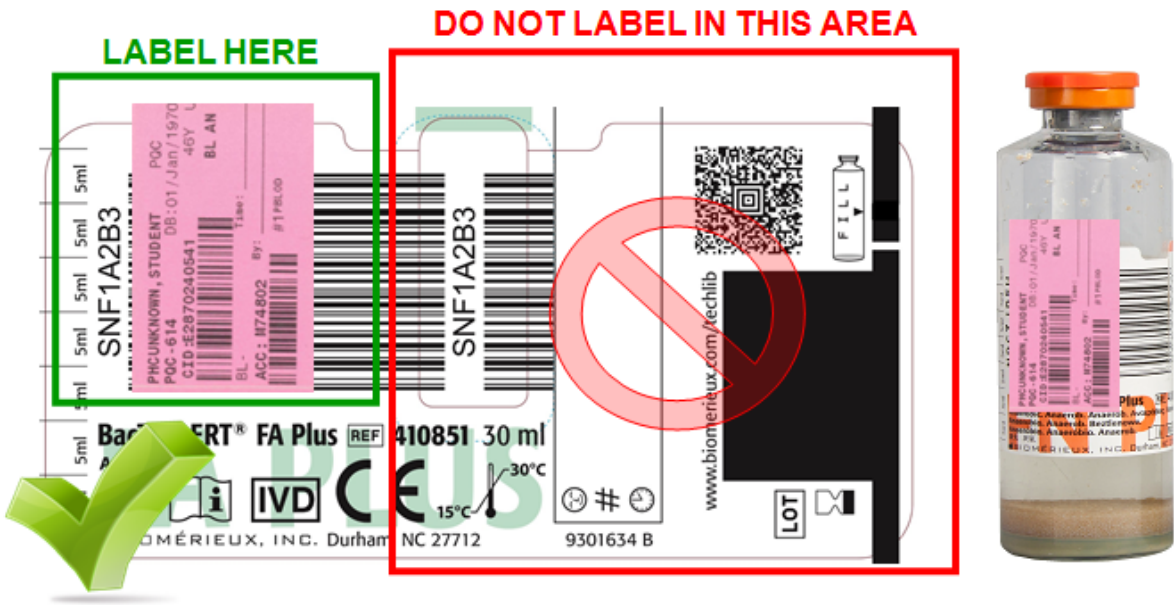
7.4.3 How to Label Blood Culture Bottles

The **automated blood culture analyzer** in our laboratory automatically reads Mediatech barcode labels. If they are not affixed to the bottle as specified, the analyzer rejects the specimen.

Please label blood culture bottles accordingly:

- Apply patient's label barcode VERTICALLY
- Avoid covering the "Volume Window"
- Avoid covering the 2D barcode
- Avoid covering the Lot number (#) and Expiry date
- Affix only ONE label on each bottle

Example of Proper Labelling:



Examples of Improper Labelling:

Patient
Label
barcode
NOT vertical



Label Barcode
TOO HIGH



Label TOO LOW –
DO NOT WRAP
label under bottle



Bottle barcode
COMPLETELY
COVERED



ONE Label for 2
bottles & Label
NOT vertical

7.5 MICROBIOLOGY LINKS FOR COLLECTION DEVICES

Refer to the following link for videos and guides on the use of the collection devices.

NOTE: Internet Explorer does not work with this link; you may need to copy and paste the web address into an alternate web browser.

https://www.providencelaboratory.com/Yukon_Hospital_Corporation.php

[RETURN TO MAIN MENU](#)

8.1 STERILE BODY FLUID COLLECTIONS

- Chemistry, Hematology and Microbiology tests may be ordered on Sterile Body Fluids (Cerebral Spinal Fluid, Synovial Fluid, Dialysate Fluid, Pericardial Fluid, Peritoneal Fluid and Pleural Fluid) at the WGH Laboratory, refer to the [WGH Laboratory Test Reference](#) for available tests and collection containers.
- All sterile fluids are considered STAT** and must be taken to the Laboratory immediately after collection. Do **NOT** send through the [pneumatic tube system](#) (PTS)
NOTE: *cell lysis can begin within one hour of collection.*
- Microbiology testing requested on a sterile fluid, only the Gram stain will be performed and interpreted at WGH, culture and sensitivity analysis will be referred to SPH
- Before beginning any fluid collection, please phone the Laboratory (867-393-8739, option 2) for direction on specimen handling and transport. Specimens need to be transferred immediately into the correct specimen containers. Serous fluid (pleural, peritoneal, and pericardial) may contain debris from the collection of the specimen. It is essential to put Hematology specimens into EDTA immediately.
- State source of fluid on requisition. If specimens are collected from more than one site, each specimen and requisition must be labelled with the source. Ensure specimens and requisitions are labelled with two unique patient identifiers (see [labelling specimens](#)).

8.1.1 Cerebral Spinal Fluid (CSF)

The physician should collect up to 20 mL of CSF on adults for testing. Collect appropriate volumes of CSF in sequential order into four sterile, screw capped tubes consecutively numbered 1 to 4; three tubes are sufficient for pediatric testing. DO NOT use glass tubes, use tubes provided in the standard pre-packaged lumbar puncture kits or CSF collection kits. Delivery **immediately** to the Laboratory, do not leave on the reception counter, **give directly to Laboratory Staff**.

CSF Specimen distribution in tubes, based on quantity of fluid collected:							
4 tubes (~20 mL)		3 tubes (~15 mL)		2 tubes (~10 mL)		1 tube (<10 mL)	
①	Chemistry	①	Chemistry	①	Chemistry and Hematology	① only	Ask physician (processed according to priority test(s)).
②	Microbiology	②	Microbiology	②	Microbiology		
③	Virology and Extra tests	③	Hematology and Virology				
④	Hematology						

NOTE: Label each tube with two (2) unique Patient Identifiers, date and time of collection, specimen source and tube identification number (1, 2, 3, and 4)

8.2 BONE MARROW ASPIRATE AND BIOPSY REQUESTS

Bone Marrow Aspirates and Biopsies are referred to St. Paul's Hospital Hematology Department for analysis. **ALL** requests for Bone Marrow Aspirates or Biopsies **MUST** have an approval from the designated WGH Laboratory Medicine Hematopathologist consultant at SPH.

The process to request a Bone Marrow procedure is outlined in the following steps.

NOTE: The Laboratory Core Lead will work directly with the Surgeon's Clinic to schedule the procedure and patient follow-up.

STEP	ACTION
1.	Primary Care Physician to initiate Bone Marrow procedure by contacting the Laboratory Core Lead (867-393-8927).
2.	Core Lead to fax the required documentation to the primary care physician for completion, this includes patient information and summary of patient clinical history.
3.	All documentation to be faxed back to Core Lead (867-393-8772 ATTN: CORE LEAD) from the Primary Care Physician.
4.	Core Lead to consult with Hematopathologist at SPH for approval.
5.	Core Lead to co-ordinate scheduling of procedure with the Surgeon's Clinic.
6.	Surgeon's Clinic to notify the patient of the date and time of procedure and request any additional information, for the procedure, from the Primary Care Physician.

8.3 PATHOLOGY SPECIMEN COLLECTIONS

Pathology Specimens are referred to St. Paul's Hospital Division of Anatomical Pathology in Vancouver for analysis. Their most recent guide to specimen directory criteria is provided on the [St. Pauls' Hospital Laboratory website for Anatomic Pathology](#).

NOTE: The link to the website will not work with Internet Explorer, in this instance copy and paste the hyperlink into an alternate web browser.

Pathology specimens are considered irreplaceable. An Irreplaceable Sample Record Form (ACC10F) will need to be completed if:

- Doctor's signature is missing on the Requisition
- Specimen or Requisition is not labelled with patient demographics (2 unique identifiers) and/or history
- Pathology description on container does not exactly match description on the Requisition
- Time of collection and time specimen added to formalin are not listed on Requisition
- Pathologists at SPH need clarification about the specimen(s)

Refer to [Labelling Requirement](#) below.

8.4 CYTOLOGY SPECIMEN COLLECTIONS

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 specimens. Rapid fixation of fluid cytology specimens is necessary to preserve cellular detail. Please deliver all cytology specimens with accompanying completed requisition(s) to the Laboratory as soon as possible. Missing or incorrect information will result in specimen rejection or unnecessary delays in processing.

WGH In-Patient Cytology Specimens are referred to [St. Paul's Hospital Division of Anatomical Pathology](#) in Vancouver for analysis.

Cytology Specimens collected outside of WGH are referred to the [BC Cancer Agency- Vancouver Centre's Diagnostic Cytology Laboratory](#) (phone: 1-604-877-6000, fax: 604-873-5384).

Along with a copy of the most recent Requisition for Diagnostic Cytology, the BC Cancer Diagnostic Cytology Laboratory has updated their [website](#) to provide detailed information on collection procedures, supplies and indications for specific specimen types.

Please consult their website for current information before collecting specimens.

<http://www.bccancer.bc.ca/health-professionals/clinical-resources/laboratory-services/diagnostic-cytology>

8.5 LABELLING REQUIREMENTS FOR PATHOLOGY AND CYTOLOGY SPECIMENS

Pathology and Cytology specimens are referred to SPH and BC Cancer Agency; for specific requisitions see the links provided in [Section 8.3](#) and [Section 8.4](#) above.

Due to the complex nature of these specimens, Pathological and Cytological specimens are considered irreplaceable. To ensure specimens are processed without delay, the following criteria should be documented on the specimen container and the requisition:

Specimen Container:

- Proper fixative is in the container for the specimen type
- Labelled with Patient's legal name (Last name and First name)
- Patient's date of birth (DD/MM/YY)
- Patient's health care number
- Source of specimen (including a brief description e.g. Upper/Lower, Left/Right)
- Date and time of collection

Specimen Requisition:

- Patient's legal name (Last name and First name)
- Patient's date of birth (DD/MM/YY)
- Patient's health care number
- Patient location (IP, OP, ER, etc.)
- Date and Time of collection
- Date and Time specimen placed in preservative
- Clinical History
- Clinical Diagnosis
- Ordering Medical Practitioner's first and last name, signature and billing number
- Requests for copies of results to be sent to other physicians (include their name and fax number)
- Indicate if this is a STAT specimen

[RETURN TO MAIN MENU](#)

9.1 SPECIMEN HANDLING & STORAGE OF BLOOD PRIOR TO TRANSPORTATION

Analytes in blood specimens can be affected by improper handling prior to transport. *Centrifugation, time, temperature, light exposure and storage conditions can affect some test results--* sometimes with severe consequences to patient health and safety.

**** Specimens requiring centrifugation should be centrifuged within 30 minutes of collection. Specimens will be rejected if they arrive more than 2 hours post-collection un-centrifuged. ****

Refer to [FACTORS AFFECTING BLOOD TEST RESULTS](#) table for more information

NOTE: Specimen Handling Affects Patient Care. Disregarding time, temperature and light specifications for blood specimens can lead to analytical errors. Results could be dramatically altered and this may result in patient harm, up to including death.

9.2 PACKAGING & TRANSPORT OF PATIENT SPECIMENS

The transport of Patient specimens is regulated by the Canadian Transportation of Dangerous Goods Regulations (TDGR). All staff responsible for packaging specimens for transport to the WGH Laboratory must have completed TDG training. All specimens must be handled in a manner in which the safety of the handler and the environment are protected while preserving the integrity of the specimens.

The specimens transported within the territory to WGH will be classified as either Exempt Human Specimen or UN3373 Biological Substance Category B. Patient specimens for which there is minimal likelihood that pathogens are present will be classified as Exempt Human Specimens. Specimens that contain blood borne pathogens will be classified as UN3373 (Biological Substance, Category B).

NOTE: The information summarized here is meant as a guide to certain parts of the Transportation of Dangerous Goods Regulations and is not meant to be a substitute for them.

It is the responsibility of those handling, shipping or transporting dangerous goods to consult the Regulations for exact requirements.

A copy of the TDGR can be found on Transport Canada's website:

<http://www.tc.gc.ca/eng/tdg/clear-menu-497.htm>

Information on training and packing material is found on the following link:

<https://www.apps.saftpak.com/>

9.2.1 Packaging for Transport to WGH

Packing for Transport to WGH				
Step	Action			
1.	Ensure all specimens are <u>labelled</u> appropriately and caps are secure and sealed; all non-vacutainer-type containers holding liquid must be sealed with Parafilm (Urine Containers, etc.). The primary receptacle must be leak proof.			
2.	Place all sealed patient specimens into a leak proof secondary receptacle (a biohazard bag) with sufficient absorbent for the amount of liquid (e.g. 1 absorbent pad per 15 mL) – preferably one set of patient specimens per biohazard bag.			
3.	Seal the biohazard bag, this bag/container must be water tight to prevent any possible specimen leakage from the primary receptacle.			
4.	Place the corresponding paper work (requisitions/packing slips) in the front sleeve of the biohazard bag. NOTE: Paperwork cannot be placed in the same pouch as the specimens since it may become contaminated by leakage. This may lead to specimen rejection			
5.	Place the biohazard bags into an outer receptacle (container/bag/box), it must have rigid sides to prevent breakage or damage of specimens in transport. Specimens must be packed to prevent them from rattling around loosely and include in this packaging any material (e.g. gel packs or ice packs) to keep the specimen at the required temperate for transport.			
	IF	THEN		
		Room Temp Specimens	Refrigerated Specimens	Frozen Specimens
	Outside Temperature > 15 °C	Secure packaging only	Extra fridge temperature gel packs and secure packaging	Extra frozen gel packs and secure packaging
	Outside Temperature 0 – 15 °C	Room temperature gel packs with secure packaging	Fridge temperature gel packs and secure packaging	Frozen gel packs and secure packaging
Outside Temperature < 0 °C	Extra Room temperature gel packs with secure packaging	Secure packaging only	Frozen gel packs and secure packaging	
6.	Seal the outer receptacle to ensure packing materials and specimens are contained.			
	IF	THEN		
	Exempt Specimens	The rigid walled outer receptacle is acceptable to transport by ground. Proceed to step 8.		
	Category B (UN 3373) specimens or specimens transporting by air.	The outer receptacle is required to be placed into a fourth (stronger) shipping receptacle that meets TDG standards and has the appropriate external markings/notification for Category B (UN3373) specimens. Proceed to step 7.		
7.	Place the sealed outer receptacle into a shipping (fourth) receptacle that meets TDG standards. NOTE: A corrugated cardboard box is appropriate to use as the fourth receptacle.			
8.	Address the outside of the outer/shipping receptacle with the WGH Laboratory Address			
9.	Indicate on the outside of the outer/shipping receptacle the required specimen temperature transport conditions (Room Temperature, Refrigerated or Frozen).			

9.3 THE PNEUMATIC TUBE SYSTEM (PTS) – WGH only

WGH has a Pneumatic Tube System (PTS) for rapidly transporting specimens from the ER to the Laboratory. Follow these important guidelines to ensure specimens arrive in the Laboratory safely.

9.3.1 Items accepted in the PTS bullet

ACCEPTABLE in the PTS BULLET	
Vacutainer Tubes	ALL blood vacutainers (except those for trace elements or heavy metals) Venous Blood Gas only Venous Lactate on ice Blood Culture Bottles
Specimen Containers (with properly secured lids)	Urine Specimen (<100mL) Urine Culture Vial Stool Specimens Stool Specimens for C&S and O&P
Paper Documents	Requisitions ECG Reports Completed WGH Blood Bank Issue/Transfuse Identification Cards
All Laboratory supplies (except containers containing Formalin or CytoLyte™)	
DO NOT SEND in the PTS BULLETS	
Sensitive and Irretrievable Specimens	Arterial Blood Gases Body Fluids Cerebral Spinal Fluid (CSF) Pathology Specimens Tissue Biopsies Bone Marrow Collections or Slides
Specimens in Formalin or CytoLyte™	Biopsies in fixative Urine in cytology fixative
Heavy Metal or Trace Element Specimens	Vacutainers containing blood for these tests must be transported upright to avoid contact with stopper
Fluid Volumes >1000mL or specimens >2.2kg	Example: 24 hour urines
Blood Products or Components	Issued blood component bags/tubing or derived blood products. Used or transfused blood component bags tubing or derived blood product container
Others	Seminal Fluids
	Sharps/ non-leak tight containers
	Food/drink
	Money/cheques or other valuables

9.3.2 Filling the PTS bullet

Laboratory Guide to Services

Blood

Culture

1. Ensure all lids are tightly sealed on specimen containers.
2. All specimens must be placed inside a disposable biohazard bag (preferable one patient's specimens per bag)
3. Place any requisition (paperwork) in outside pocket of the disposable biohazard bag
4. Expel air and seal all biohazard bags
5. Place all biohazard bags in the reusable larger biohazard bag (heavier plastic)



6. Expel air from the reusable biohazard bag, roll top down and seal shut with the attached Velcro



7. Ensure all contents fit inside the bullet (nothing hanging outside), properly lock the bullet with its locking mechanism.



Blood

Culture

9.3.3 *Transporting specimens on ice in the PTS bullet*

1. See [WGH Laboratory Test Reference](#) for test transport requirements
2. Place icepack in a disposable biohazard bag, expel air and seal
3. Place blood specimen and bagged ice pack in a second (2nd) disposable biohazard bag together
4. Expel air and seal the biohazard bag.
5. Place any paper work (including requisitions) in the outer pocket of the biohazard bag.
6. Place sealed biohazard bag in larger reusable biohazard bag
7. Expel air from the reusable biohazard bag, roll top down and seal shut with the attached Velcro
8. Ensure all contents fit inside the bullet (nothing hanging outside), properly lock the bullet with its locking mechanism

NOTE: Send specimens on ice in a separate bullet

9.3.4 *Launching a PTS Bullet*

1. Place “bullet” in pneumatic tube system slot (bottom first).
2. Select appropriate destination:
 - 1 = Pharmacy
 - 2 = Laboratory
 - 3 = New ED

3. Select “E” to send

NOTE: Phone the Laboratory (8301) to notify Laboratory Staff that a bullet is in transit

9.3.5 *Troubleshooting:*

- Wrong location selected – hold “*” (star key) for 2 seconds to clear screen, then re-enter correct location (must be done before selecting E)
- Power Failure – do not use system, hand deliver
- Destination Full – phone location to advise them their collection basket is full.
- System Failure – notify facility management and locations

Phone numbers:

- Pharmacy – 8737
- Laboratory – 8301
- ER- 8926

NOTE: All instructions for use of the PTS can be found by each Launching Station.

[RETURN TO MAIN MENU](#)

10.1 List of Patient Instructions for Laboratory tests

Patient Instructions for:		
ECG	A.	Electrocardiogram (ECG/EKG)
Holter	B.	Holter Monitors
Glucose Tolerance Testing	C.	Non Gestational 2 Hour Glucose Tolerance Test -75 gram oral glucose load
	D.	Gestational 2 Hour Glucose Tolerance Test -75 gram oral glucose load
	E.	Gestation Diabetes Screen -50 gram oral glucose load
Urine Specimens	F.	24 Hour Urine Test
	G.	12 Hour Urine Test
	H.	Midstream Urine Collections
	I.	Urine Collection for Cytology testing
	J.	Infant Urine Collection using a U-bag
Stool Specimens	K.	Fecal Immunochemical Testing (FIT)
	L.	Stool for Culture & Sensitivity (C&S) testing
	M.	Stool for Ova & Parasites (O&P) testing
	N.	Stool for <i>C. difficile</i>
Sputum Specimens	O.	Sputum Collection (includes Bacteriology, Fungal, Cytology and TB)
Semen Specimens	P.	Post Vasectomy Testing
	Q.	Infertility Testing

[RETURN TO MAIN MENU](#)

A. *Electrocardiograms - Your ECG: Studying Your Heart*

What is an ECG (Electrocardiogram or EKG)?

- An ECG is a record of your heart's electrical activity.

How is an ECG done?

- Sensors are attached to your arms, legs, and chest (around the heart area).
- These sensors "listen" to your heartbeat.
- Electrical impulses associated with heart contraction and relaxation are saved onto a computer and then transmitted to a cardiologist for interpretation.
- The ECG test results will be provided to your physician
- Laboratory staff DO NOT give out ECG results.

Will the ECG Hurt?

- An ECG is completely painless.
- No electricity goes into your body.
- There is no chance of electrical shock.

Do I need an appointment for an ECG?

- The Laboratory will phone you with an appointment time once they receive a requisition from your physician.

What information will the Laboratory need from me?

- Your name, personal health number, date of birth, address and phone number

How long will it take to perform the ECG?

- The test is very short but your Doctor may need to look at your results before you can leave. Prepare for the visit to last up to 30 minutes.

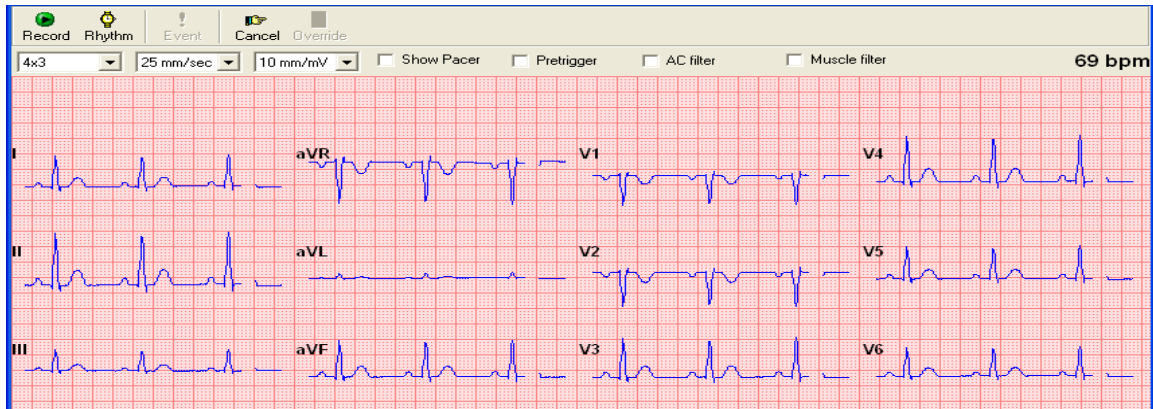
Are there any special instructions I need to prepare for an ECG?

- On the day of testing, shower and wash your body.
- Do not use oily or greasy skin creams as they cause interference.
- Avoid wearing full length hosiery, tights or pants that cannot be rolled up as sensors must be placed directly on your legs.
- If you have a hairy chest, you need to shave it for proper placement and secure adhesion of the sensors. If this isn't done at home, it may be required to be done at the time of set up with a dry razor

What will the Laboratory ask me to do?

- Undress ONLY to your waist including a bra (we require a bare chest to position the ECG sensors).
- Put on the gown provided, with the opening to the front.
- Your pant legs must be rolled up. We will request that you remove pantyhose to allow placement of the ECG sensors.
- If there is chest hair, you may be asked to shave off some of it to allow the sensor to have direct contact with skin (hair may cause interference with the electrode sensor)
- You can keep on all jewelry
- Turn off your cellphone to avoid interference.
- Lie flat on your back on the ECG table (bed).
- RELAX!

What does an ECG tracing look like?



(Sample Only)

NOTE: ECGs performed by the Laboratory cannot be interpreted by a Medical Laboratory Assistant, Medical Laboratory Technologist or Combined Laboratory X-Ray Technologist; you will need to address any questions regarding your results with your physician.

B. The Holter Monitor- Studying Your Heart for 24 Hours**What is the Holter Monitor?**

- It is a digital recording of your heart's electrical activity over a 24 hour period

How is a Holter Monitor test done?

- Sensors are attached to your chest (around the heart area)
- These sensors "listen" to your heartbeat
- Electrical impulses associated with heart contractions and relaxations are saved onto a digital device (the monitor) for 24 hours. You will record in a diary your activity over the 24 hours. The digital recording and diary are then transmitted to a cardiologist for interpretation.
- The Holter Monitor test results will be provided to your physician

Will the Holter Monitor hurt?

- The Holter Monitor is very similar to an ECG and is completely painless.
- No electricity goes into your body and there is no chance of electrical shock

DO I need an appointment for a Holter Monitor?

- The Laboratory will call you with an appointment once they receive the requisition from your physician.

What information will the laboratory need from me?

- Your full name, personal health number, date of birth, address and phone number.

How long will it take to get the Holter Monitor?

- The process to place the Holter Monitor and set up is usually less than 30 minutes but your appointment is planned for 30 minutes.
- You will need to visit the Laboratory the next day (24 hours later) to have your Holter Monitor removed and to hand in your diary. This doesn't require an appointment and usually takes less than 10 minutes.

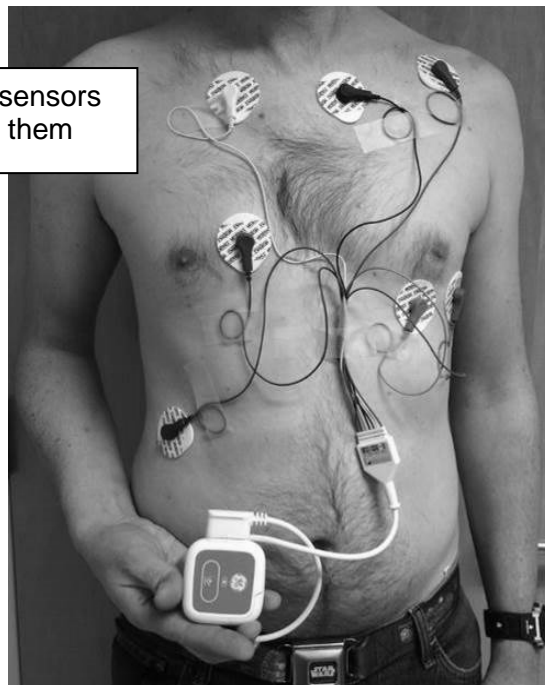
Are there any special instructions I need to prepare for a Holter Monitor?

- On the day of testing, shower and wash your body.
- Do not use oily or greasy skin creams as they cause interference.
- Best clothing choice is to wear a shirt that opens in the front and pants with a belt.
- If you have a hairy chest, you need to shave it for proper placement and secure adhesion of the sensors. If this isn't done at home, it may be required to be done at the time of set up with a dry razor.
- To hide wires, you may want a shirt with a high neckline.

What will the laboratory ask me to do?

- Undress **ONLY** to your waist (we require a bare chest to position the sensors). You will need to remove your bra but once the sensors are in place, you can place it back on over the sensors.
- Put on gown provided, with the opening in the front.
- If there is chest hair, you may be asked to shave off some of it to allow the sensor to have direct contact with skin (hair may cause interference with the electrode sensor)
- You will be given an activity diary that you are required to complete for the 24 hours that you have the Holter Monitor on and return it when the monitor is removed.

Stickers with sensors
attached to them



NOTE: *Holter Monitor tracings performed by the Laboratory cannot be interpreted by a Medical Laboratory Assistant, Medical Laboratory Technologist or Combined Laboratory X-Ray Technologist; you will need to address any questions regarding your results with your physician.*

C. Non-Gestational 2 Hour Glucose Tolerance Test-75 gram oral glucose load

This test studies the sugars in your blood. The Laboratory will call you with an outpatient appointment time, please allow a minimum of 2 hours for the appointment

What do I need to do to prepare for my appointment?

- Have NOTHING to eat, chew (including gum or candy) or drink (except a small amount of water) for at least 8 hours before your test. You can take your prescription medication.
- You may wish to bring a warm sweater, book or craft because this test will take 2 hours and you cannot leave the laboratory area for the duration of the test.
- Bring a snack to eat once the test is complete.

NOTE: If you have had surgery, you must wait at least 2 weeks before doing this test. If you are sick on the day of the test, do not come. You must rebook the test by phoning the laboratory 393-8739, select option 1.

What will happen once I arrive for my appointment?

- a. When you arrive for your appointment you will be registered and your blood will be drawn by the next available Medical Laboratory Assistant.
- b. After your blood is drawn, the Medical Laboratory Assistant will check your Glucose with the glucometer. If the level is ok to proceed, you will drink a sweet drink, and then you will be asked to sit and rest for 2 hours.
- c. You cannot leave the building; you cannot smoke, eat or drink during the 2 hours.
- d. After 2 hours your blood will be drawn. The test is finished. You may wish to have your snack to eat before leaving.

D. Gestational 2 Hour Glucose Tolerance Test-75 gram oral glucose load

This test studies the sugars in the blood of pregnant women. The Laboratory will call you with an outpatient appointment time, please allow a minimum of 2 hours for the appointment.

What do I need to do to prepare for my appointment?

- Have NOTHING to eat, chew (including gum or candy) or drink (except a small amount of water) for at least 8 hours before your test. You can take your prescription medication.
- You may wish to bring a warm sweater, book or craft because this test will take 2 hours and you cannot leave the laboratory area for the duration of the test.
- Bring a snack to eat once the test is complete.

NOTE: If you have had surgery, you must wait at least 2 weeks before doing this test. If you are sick on the day of the test, do not come. You must rebook the test by phoning the laboratory 393-8739, select option 1.

What will happen once I arrive for my appointment?

- a. When you arrive for your appointment you will be registered and your blood will be drawn by the next available Medical Laboratory Assistant.
- b. After your blood is drawn, the Medical Laboratory Assistant will check your Glucose with the glucometer. If the level is ok to proceed, you will drink a sweet drink, and then you will be asked to sit and rest for 2 hours.

NOTE: You cannot leave the building; you cannot smoke, eat or drink during the 2 hours.

- c. After 1 hour, your blood will be drawn and you will have to return to your seat area. After 2 hours your blood will be drawn for the third time, the test is finished. You may wish to have your snack to eat before leaving.

E. Gestational Diabetes Screen-50 gram oral glucose load

This test studies the sugars in the blood of pregnant women. It is a Gestational Diabetes screening tool. The Laboratory will call you with an outpatient appointment, please allow for at least 1 hour for the appointment.

What do I need to do to prepare for my appointment?

- Eat normally before you come (NO fasting required).
- You may wish to bring a warm sweater, book or craft because this test will take 1 hour and you cannot leave the laboratory area for the duration of the test.

What will happen once I arrive for my appointment?

- a. When you arrive for your appointment you will be registered and you will drink a sweet drink.
- b. You will be asked to sit and rest for 1 hour.
NOTE: You cannot leave the building; you cannot smoke, eat or drink during the 1 hour.
- c. After 1 hour your blood will be drawn, the test is finished

Blood

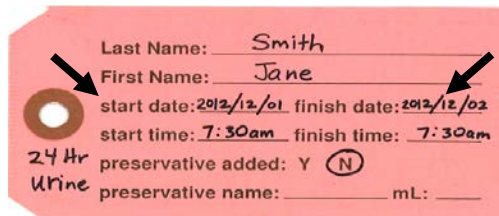
Culture

F. 24 Hour Urine Testing

PLEASE READ CAREFULLY:

Before	Follow your doctor's orders about food and medicine. Do not allow feces (poo) to get into your container. NOTE: Women: do not collect during menstruation (your period-no blood).
Start	1. Empty your bladder (pee) in the toilet- Do not collect it (usually the first morning urine)
	2. Mark down the date & time on the pink label: "start date" & "start time"
	3. Collect ALL your urine (pee) for the next 24 hours (including the first morning urine of the next day if this is when you started)
During Collection	1. Follow laboratory instruction on what temperature to store your container during collection
	2. Urinate (pee) into the "white hat"
	3. Transfer urine from white hat into the orange container- Be careful not to splash! CAUTION: the container may contain an acid, there will be a label indicating if there is an additive in the container.
	4. If the test is for trace metals, do not rinse the white hat
Finish:	1. After 24 hours (usually the first morning urine of the following day of start) empty your bladder completely and put urine into the container
	2. Mark down the date & time on the pink label: "finish date" & "finish time"
	3. Bring your filled orange container and Requisition to the Laboratory as soon as you can

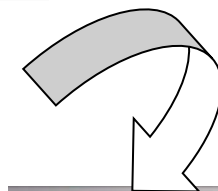
Write dates & times on the container label:



Last Name: Smith
First Name: Jane
start date: 2012/12/01 finish date: 2012/12/02
start time: 7:30am finish time: 7:30am
preservative added: Y (N)
preservative name: _____ mL: _____

24 Hr Urine

"White hat" on toilet



Blood

Culture

G. 12 Hour Urine Testing

PLEASE READ CAREFULLY:

Before	Follow your doctor's orders about food and medicine. Do not allow feces (poo) to get into your container. NOTE: Women: do not collect during menstruation (your period -no blood)
Start	1. Empty your bladder (pee) in the toilet- Do not collect it (usually the first morning urine)
	2. Mark down the date & time on the pink label: "start date" & "start time"
	3. Collect ALL your urine (pee) for the next 12 hours
During Collection	1. Follow laboratory instruction on what temperature to store your container during collection
	2. Urinate (pee) into the "white hat"
	3. Transfer urine from white hat into orange container- Be careful not to splash! CAUTION: the container may contain an acid, there will be a label indicating if there is an additive in the container.
Finish	1. After 12 hours, empty your bladder completely and put urine into the container
	2. Mark down the date & time on the pink label: "finish date" & "finish time"
	3. Bring your filled orange container and Requisition to the Laboratory as soon as you can

Write dates & times on the container label:

Last Name: Smith
 First Name: Jane
 start date: 2012/12/01 finish date: _____
 start time: 23:00 finish time: 11:00 a.m.
 (11 p.m.)
 preservative added: Y (N)
 preservative name: _____ mL: _____

12 Hr
Urine

"white hat" on toilet



H. Midstream Urine Collection

Men:

1. Wash your hands with soap and water.
2. Pull back your foreskin, if present.
3. Completely wash your glans penis ("head" of penis) using the towelette provided. Wipe away from the urethra (opening of the penis).
4. Remove lid from sterile container, try not to touch the inside of the container or lid.
5. Urinate (pee) into the toilet a small amount (this cleans the opening of your urethra, where the urine is coming out), then stop.
6. Place the container a few inches from your penis then begin urinating in the container.
NOTE: Do not touch the inside of the container to your penis or fingers
7. Fill the container about half-full. If needed, continue urinating in the toilet.
8. Close the lid tightly to the container.
9. Wash your hands a second time.

Women:

1. Wash your hands with soap and water.
2. Sit as far back on the toilet as possible and spread your legs.
3. Remove lid from container, try not to touch the inside of the container or lid.
4. Hold your labia (folds of skin) apart with your fingers and keep apart for the rest of the collection.
5. Completely wash your entire inner genital area using the towelette provided. Wipe from front to back.
6. While continuing to hold your labia apart, urinate (pee) into the toilet a small amount and then stop.
7. Position the container then begin urinating in the container.
NOTE: Do not touch the inside of the container to your body or fingers.
8. Fill the container about half-full. If needed, continue urinating in the toilet.
9. Close the lid tightly to the container.
10. Wash your hands a second time.

I. Urine Collection (for Cytology Testing)

Please read carefully before you begin:

1. Label your collection container with:
 - Your full first and last name
 - Your health care number
 - Your date of birth
 - The date and time of your collection
2. Do **not** collect your **1st morning urine** (pee). If possible, collect your 2nd urination (pee) of the day.
3. Collect a [midstream specimen](#) of urine:

Men: completely wash the head of your penis (Pull back your foreskin, if present).



Women: wash your entire genital area with soapy water and rinse well.

4. As you start to urinate (pee), allow a small amount to fall into the toilet (this cleans the opening of your urethra, where the urine is coming out) then stop.
5. Position the empty container near your body and then urinate (pee) into it. Fill it about half full (50 mL). Remove the container. Finish urinating (peeing) into the toilet if needed.
6. Tightly seal the lid & place containers in a plastic bag. Seal the bag. Wash hands.
7. Bring to the Laboratory (or community Health Center) within 2 hours of collection. If you can't, put it in the fridge and bring it to the Laboratory (or community Health Center) within 24 hours.

J. Infant Urine Collection (Using a U-Bag)

Your collection kit contains:

- Towelette (wipes) to clean your baby's skin
- U-bags (urine specimen collection bags)
- A sterile specimen container (pink top)



Please read carefully before you begin:

1. Wash your hands with soap and water.
2. Carefully wash your baby's genital area with the wipes provided and allow to air dry. See next page for detailed instructions for cleaning and attaching the U-bag.
3. Attach a U-bag to your baby's genital area ([see pictures next page](#)).
4. Check your baby often.
5. Label the pink top container with the following information:
 - Baby's full first and last name
 - Baby's health care number and date of birth
 - The date and time baby urinated (peed)
6. As soon as your baby has urinated (peed) into the bag, gently peel off the bag's sticky tape from the skin and remove the bag. Tilt the bag so the pee is away from the blue tab.
7. Remove the blue tab from the bag and pour all the pee into the sterile container. Do not touch the inside of the container.
8. Discard the U-bag and wash your hands.
9. You must bring the specimen and Requisition to the Laboratory immediately.

NOTE: Remote collections: transport the specimen to the Laboratory or Community Health Centre within 2 hours. For specimens that cannot be delivered within 2 hours, refrigerate specimen and deliver to Laboratory or Community Health Centre within 12 hours.

Attaching a U-Bag

Attaching an Infant Urine Sample Collection Bag (U-bag)

The skin area must be clean and dry. Avoid oils, baby powders, and lotion soaps that may leave a residue on the skin and interfere with the adhesive's ability to stick.

Begin application on the tiny area of skin between the anus and genitals. The narrow "bridge" on the adhesive patch prevents feces from contaminating the urine sample and helps position the collection bag.

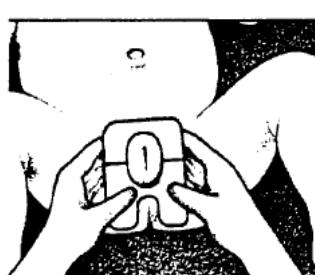
Female



Step 1

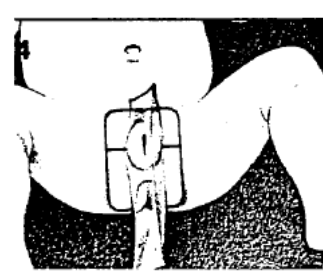


Step 2



Step 3

Stretch perineum to separate skin folds and expose vagina. When applying adhesive to the skin, be sure to start at the narrow bridge of skin that separates the vagina from the anus, and work outward from this point.



Step 4

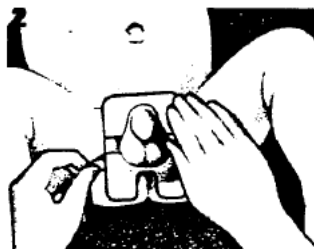
Press adhesive firmly against the skin, avoiding wrinkles. When the bottom section is in place, remove the paper backing from the upper portion of the adhesive patch. Work upward to complete application, securing adhesive around the vagina.

Male



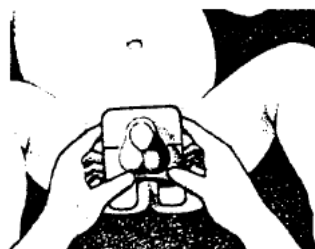
Step 1

Lay infant on his back, and wash entire genital area. A gentle bath soap is preferred. Avoid using a lotion soap solution as it can leave a residue that may interfere with adhesion. Wash scrotum first, then penis, and anus last. Rinse and dry. Cleanse entire area again using the towelette provided. Allow to air-dry.



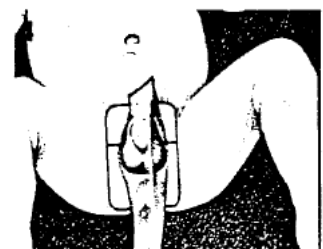
Step 2

Remove protective backing from the bottom half of the adhesive patch. It is easier to leave the top half of the adhesive covered until the bottom section has been applied to the skin. However, with an active boy, it may be easier to leave all the backing in place until the collection bag has been fitted over the genital area.



Step 3

When pressing adhesive to the skin, be sure to start at the narrow bridge of skin between the anus and the base of the scrotum, and work outward from this point. Be sure skin is dry before applying the collection bag.



Step 4

Press adhesive firmly against the skin, avoiding wrinkles. When the bottom section is in place, remove the paper backing from the upper portion of the adhesive patch. Work upward to complete application.

K. FIT (Fecal Immunochemical Testing): screening for colorectal cancer

Use Patient Instructions prepared by [Colon Check Yukon](#)- Do not copy this page!

Before you begin:

- Read all the instructions carefully.
- Eat and drink normally.
- Do not do the FIT if you see blood in your stool or urine.
- If you need to urinate (pee), do so before you take the FIT.

How to do the FIT:

1. Review your requisition to ensure the information on it is correct.
2. If any changes need to be made, note them and notify the Laboratory Staff when dropping off your specimen.
3. Follow the instructions on how to use the FIT sheet included with your kit.
4. Write your patient information on the FIT collection device
 - first and last name
 - date of birth
 - healthcare number
 - date and time of collection
5. Write the date and time of collection on the requisition.
6. Drop off the specimen as soon as possible - within 2 to 4 days (the sooner the better) of collection.



FIT Instructions

This FIT package includes:

- 1. Check**
Check the requisition for correct information. Verify: Date of birth, Your name, Your health card number. If not, make necessary changes.
- 2. Write**
Write your patient information on the FIT collection device (NAME, MON, DATE, Health card No, Sample).
- 3. Pee and Flush**
Flush the toilet.
- 4. Prepare**
Prepare the collection device by opening the packet and placing it in the toilet.
- 5. Poop**
Defecate into the collection device.
- 6. Collect**
Collect the specimen by squeezing the device into the toilet. Snap closed.
- 7. Flush**
Flush the toilet.
- 8. Drop off**
Drop off the specimen in the fridge. BEST WITHIN 2 DAYS. Keep in the fridge until drop-off.

Questions?
Contact ColonCheck Yukon at 867-667-5497
Toll-Free at 1-844-347-9856 or email coloncheck.yukon@gov.yk.ca

Adapted with permission from Ontario Health (Cancer Care Ontario)

Yukon
Your Community Health Centre

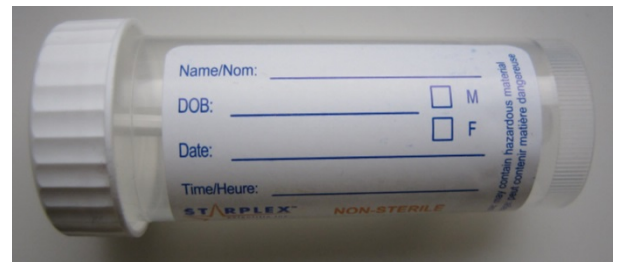
L. Stool Collection (for Culture & Sensitivity)

Please read carefully before you begin:

- Bring your specimen and your Requisition to the Laboratory **on the same day you collect**.
- If you do not collect or label your stool specimen properly, it will not be tested.

Procedure:

1. Label the white-top container:
 - Your first and last name
 - Your date of birth
 - Your health care number
 - Date and time of collection
2. Write date and time of collection on your Requisition form.
3. Empty your bladder (pee) completely. Do not let urine touch the stool specimen.
4. Collect stool onto a clean, disposable container.
 - Lift toilet set
 - Place plastic wrap or aluminum foil over toilet bowl.
 - Pass the stool onto the plastic wrap or foil. Avoid contamination with urine or water from bowl.



NOTE: For small children: Fasten plastic wrap inside a diaper with childproof safety pins; then remove the stool from the plastic and put it into the collection container. Do not bring used diapers to the Laboratory.

5. Using spoon attached to the lid of the stool jar, select a walnut-sized portion of the feces that looks bloody, slimy or watery and transfer to the vial. Please do not overfill!
6. Make sure nothing else is in the collection container (no toilet paper, etc.).
7. Tightly close the container with the lid. Ensure that the lid is on properly to avoid leakage of the specimen.
8. Put the container in the plastic bag and seal the bag. (Container lid tightly closed!).
9. Wash your hands with soap and water.
10. Bring the specimen and Requisition as soon as possible. (on the same day of collection).

If you suspect a Gastrointestinal (GI) Outbreak, please contact the **Yukon Communicable Diseases Control office** at 867-667-8323

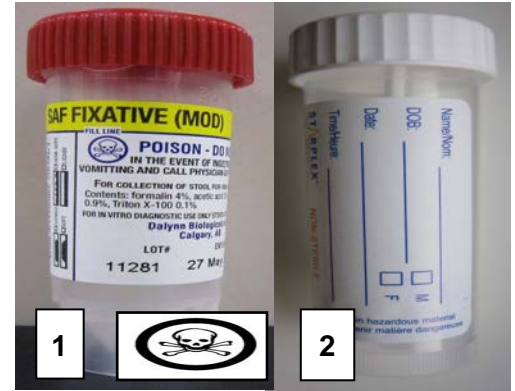
M. Stool Collection (for Ova & Parasite Exam)

Please read carefully before you begin:

- Bring your specimens and your Requisition to the Laboratory **on the same day you collect**.
- If possible, do not take the following medications for two (2) weeks prior to taking the specimen: Antibiotics, barium, mineral oil, kaopectate, etc.

Procedure:

1. Label both (the red and white –topped) containers with:
 - Your first and last name
 - Your date of birth
 - Your health care number
 - Date and time of collection
2. Record Date and time of collection on your Requisition forms.
3. Empty your bladder (pee) completely. Please do not let urine touch the stool specimen.
4. Collect stool onto a clean, disposable container.
 - Lift toilet set
 - Place plastic wrap or aluminum foil over toilet bowl.
 - Pass the stool onto the plastic wrap or foil. Avoid contamination with urine or water from bowl.



NOTE: For small children: Fasten plastic wrap inside a diaper with childproof safety pins; then remove the stool from the plastic and put it into the collection container. Do not bring used diapers to the Laboratory.

5. Using spoon attached to the lid of the stool jar, select a walnut-sized portion of the feces that looks bloody, slimy or watery and transfer to the red-topped vial until liquid is at the fill line. Please do not overfill!
- NOTE:** This container contains a POISONOUS LIQUID. IF swallowed, drink lots of milk. Phone 911, if outside Whitehorse; contact your local Nurse or Doctor immediately.
6. Be CAREFUL not to spill the red liquid, IT IS POISONOUS!!
7. Make sure there is nothing else is in the collection container (no toilet paper, etc.).
8. Tightly close the container with the lid. Ensure that the lid is on properly to avoid leakage of the specimen.
9. From the same stool specimen, add stool to the second collection container (white lid) using the spoon attached to the lid of the stool jar. Take from parts of the stool that look bloody, slimy or watery. Please do not overfill.
10. Put the 2 containers in the plastic bag and seal the bag.
11. Wash your hands with soap and water.
12. Bring the specimens (2 labelled containers) and Requisition as soon as possible (on the same day of collection) to the Laboratory (or community Health Center).

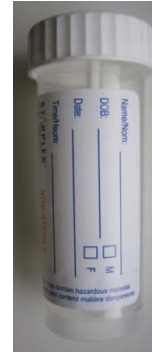
N. Stool Collection (for C.difficile)

Please read carefully before you begin:

- Bring your specimen and your Requisition to the Laboratory **within 2 hours of collection**.
- If you do not collect or label your stool specimen properly, it will not be tested.
- Stool must be loose (e.g. assume the shape of the container).

Procedure:

1. Label the pink top sterile collection container:
 - Your first and last name
 - Your date of birth
 - Your health care number
 - Date and time of collection
2. Write date and time of collection on your Requisition.
3. Empty your bladder (pee) completely. Do not let urine touch the stool specimen.
4. Collect stool onto a clean, disposable container.
 - Lift toilet set
 - Place plastic wrap or aluminum foil over toilet bowl.
 - Pass the stool onto the plastic wrap or foil. Avoid contamination with urine or water from bowl.



OR



NOTE: For small children: Fasten plastic wrap inside a diaper with childproof safety pins; then remove the stool from the plastic and put it into the collection container. Do not bring used diapers to the Laboratory.

5. Using spoon attached to the lid of the stool jar (White lid) or using a clean dry device for the sterile container (Pink Lid), select a large scoop portion (roughly a tablespoon amount) of the feces that looks bloody, slimy or watery and transfer to the vial. Please do not overfill!
6. Make sure nothing else is in the collection container (no toilet paper, etc.).
7. Tightly close the container with the lid. Ensure that the lid is on properly to avoid leakage of the specimen.
8. Put the container in the plastic bag and seal the bag. (Container lid tightly closed!).
9. Wash your hands with soap and water.
10. Bring the specimen and Requisition to the Laboratory as soon as possible (within 2 hours of collection).

If you suspect a Gastrointestinal (GI) Outbreak, please contact the **Yukon Communicable Diseases Control office** at 867-667-8323

O. Sputum Collection

Please read carefully before you begin:

1. Label your pink top sterile collection container with:
 - Your first and last name
 - Your date of birth
 - Your health care number
 - The date and time of your collection
 - Write "Sputum"
2. Rinse mouth and clean teeth prior to obtaining a specimen to avoid oral contamination. (DO NOT use antibacterial mouth wash).
3. In hale and exhale deeply, forcing air from the lungs using the diaphragm to produce a deep cough.
4. Cough deeply and expectorate (spit) the sputum (mucus) it into the sterile container until one (1) teaspoon is produced, ([see pictures on next page](#)).
5. Do not spit clear saliva into the container - sputum should look thick and green or yellow-green.
6. Tightly seal the lid on the container and place it in a plastic bag; seal the bag.
7. Collect 1 good specimen at a time. If you are unable to get a good specimen after 3 attempts, talk to your doctor.
 - **For Cytology:** collect a series of three (3) consecutive sputa over 3 days. Use separate containers for each collection and separate requisitions.
 - **For TB Testing:** collect a series of three (3) consecutive sputa with at least 1 hour in between each collection. Use separate containers for each collection and separate requisition.
8. Bring the specimen to the Laboratory within 2 hours of collection. If you can't, put it in the fridge and bring it to the Laboratory within 24 hours (DO NOT FREEZE).



...continued from previous page

How to Collect Sputum

1. Gargle or rinse with the water you are given.
Do not use antiseptic mouthwash.



2. Hold the sample container to your mouth with your lips inside it. Take as deep a breath as you can and cough **then spit** into the container (*do NOT just spit saliva*).



3. The sample you cough should look thick and yellow or green. The sample should be bigger than a ½ teaspoon.



4. Close the container lid tightly.



5. Give the sample to your caregiver right away.

If you are at home:

- Seal your sample in the plastic bag you were given.
- Put the bag in the fridge right away.
- Return your sample to your caregiver within 24 hours.

March 2008

P. Semen Analysis – Post Vasectomy

NOTE:

- Specimens must be delivered to the WGH Laboratory Monday to Friday 8:00 – 15:00 only.
 - Due to the temperature sensitive nature of the specimens, collection should take place within the city of Whitehorse to ensure prompt delivery time.
 - Keep specimen at room temperature and do not subject the specimen to extreme temperature during delivery.
 - It is recommended that the semen specimen be collected following a 3-day period of abstinence.
1. Collect the specimen twelve weeks (3 months) after your vasectomy- A second test may be required if tested too early.
 2. Obtain a Requisition and collection container from your doctor.
 3. Label your collection container with the following information:
 - Your full first and last name
 - Your date of birth
 - Your health care number
 - The date and time of your collection
 - Write “Semen Post- Vas” on the container
 4. You may collect the specimen by masturbation or coitus interruptus.
NOTE: DO NOT collect the specimen in a condom.
 5. Tightly seal the lid on the container and place it in a plastic bag; seal the bag.
 6. Record the time and date of collection on your Requisition.
 7. Bring your specimen AND your Requisition to the WGH Laboratory within 3 hours of collection. Avoid exposing the specimen to extreme temperatures during transport.

Blood

Culture

Q. Semen Analysis - Infertility Investigation

NOTE:

- Specimens must be delivered to the WGH Laboratory Monday to Friday 8:00 – 15:00 only.
 - Due to the temperature sensitive nature of the specimens, collection should take place within the city of Whitehorse to ensure prompt delivery time.
 - Keep specimen warm (at body temperature) and do not subject the specimen to extreme temperature during delivery.
 - It is recommended that the semen specimen be collected following a 3-day period of abstinence.
1. Obtain a Requisition and collection container from your doctor.
 2. Label your collection container with the following information:
 - Your first and last name
 - Your date of birth
 - Your health care number
 - The date and time of your collection
 - Write “Semen Infert” on the container
 3. Warm the collection container under your arm before collecting your specimen.
 4. You may collect the specimen by masturbation or coitus interruptus.
NOTE: DO NOT collect the specimen in a condom.
 5. Tightly seal the lid on the container and place it in a plastic bag; seal the bag.
NOTE: You **MUST** keep the specimen warm while you are bringing it to the Laboratory. Keep the container inside your jeans pocket or under your arm for example.
 6. Record the time and date of collection on your Requisition.
 7. Bring your specimen AND your Requisition form to the WGH Laboratory as soon as possible, within 30 minutes of collection.

[RETURN TO MAIN MENU](#)

10.2 COLLECTION PROCEDURE FOR PERTUSSIS TESTING

Laboratory Collection Instructions for Pertussis Testing

PHSA Laboratories

Public Health Microbiology & Reference Laboratory

Specimens:

- Optimal samples are pernasal swabs but postnasal swabs are also accepted, though less sensitive. **DO NOT SUBMIT THROAT SWABS.**
- Please use COPAN eSwab containing Liquid Amies with flocked swab.



COPAN CA481C (tube with Liquid Amies, green cap)

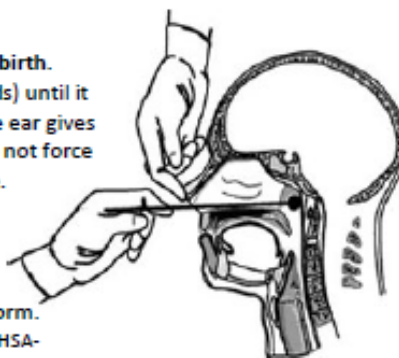
Collection:

- Personal protection during specimen collection:** Minimize self exposure by minimizing the amount of time spent in taking a sample, wearing personal protection and following infection control practices. Hands should be washed and fresh gloves used for each new patient.

Procedure:

1st Choice: Pernasal specimens

- Label the container with the patient's full name and date of birth.
- Gently insert swab into one nostril straight back (not upwards) until it reaches the posterior wall. The distance from the nose to the ear gives an estimate of how far back the swab should be inserted. Do not force the swab. If an obstruction is encountered, try the other side.
- Rotate swab a few times, loosening the cells in the mucus cavity and then remove.
- Place the swab into the accompanying eSwab vial.
- Fill out the *PHSA Labs Bacteriology & Mycology Requisition form*. (Available at <http://www.phsa.ca/AgenciesAndServices/Services/PHSA-Labs/Testing-Requisitions/Diagnostic.htm>)
- Seal in biohazard bag, refrigerate and ship as soon as possible in a cooler containing ice packs.



2nd Choice: Postnasal specimens

- Label the container with the patient's full name and date of birth.
- Incline the patient's head as required and insert the swab into the patient's mouth.
- To avoid contamination from the oral cavity, bend the wire to an angle of 135° about 1 cm from the tip.
- Rest the swab against the posterior wall of the pharynx and move the tip up and down a few times.
- Place the swab into the accompanying eSwab vial.
- Fill out the *PHSA Labs Bacteriology & Mycology Requisition form*.
- Seal in biohazard bag, refrigerate and ship as soon as possible in a cooler containing ice packs.

PHSA 305 Rev 2019-11

10.3 COLLECTION PROCEDURE FOR CHLAMYDIA/GC URINE

Chlamydia / Gonorrhoeae (Urine)


DIAGNOSTIC SOLUTIONS

Aptima® urine collection kit

Collection procedure guide

Collection for male and female urine specimens


Patient should not have urinated for at least 1 hour prior to specimen collection.



Direct patient to provide **first-catch** urine (approximately 20 to 30 mL of initial urine stream) into urine collection cup free of any preservatives. Collection of larger volumes of urine may result in specimen dilution that may reduce test sensitivity. Female patients should not cleanse labial area prior to providing specimen.


Urine specimen collection guide for:

- *Chlamydia trachomatis* (CT)
- *Neisseria gonorrhoeae* (GC)
- *Trichomonas vaginalis* (TV) for female only




Fluid is between black fill lines

Remove cap from urine specimen transport tube and transfer 2 mL of urine into urine specimen transport tube using the disposable pipette provided. The correct volume of urine has been added when the fluid level is between the black fill lines on urine specimen transport tube label.



Re-cap urine specimen transport tube tightly. This is now known as the "processed urine specimen."



Specimen transport and storage

- After collection, transport and store processed urine specimens in the Aptima urine specimen transport tube between 2°C to 30°C until tested.
- Processed urine specimens should be assayed with the Aptima assay for CT, GC and/or TV within 30 days of collection.
- If longer storage is needed, freeze between -20°C to -70°C for up to 12 months after collection in the Aptima assay for CT and/or GC. For the Aptima assay for TV, freeze at < -20°C for up to 12 months.
- Urine samples still in primary collection container must be transported to the lab between 2°C to 30°C.
- Transfer urine sample into Aptima urine specimen transport tube within 24 hours of collection.
- Store between 2°C to 30°C and test within 30 days of collection.

Hologic provides this collection procedure guide as a general informational tool only. It is not an affirmative instruction or guarantee of performance. It is the sole responsibility of the laboratory to read and understand the appropriate package insert and comply with applicable local, state and federal rules and regulations.

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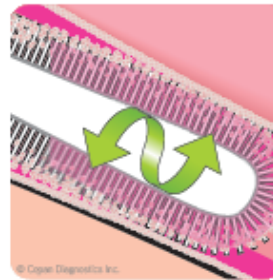
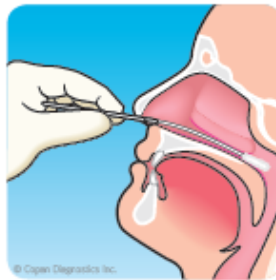
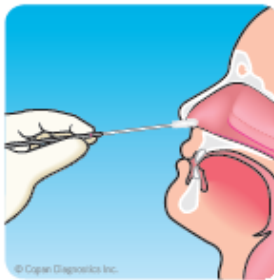
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HOLOGIC®

10.4 COLLECTION PROCEDURE FOR NASOPHARYNGEAL SWABS



NASOPHARYNGEAL FLOCKED SWABS AND UTM™ HOW TO GUIDE



- 1) Gently insert the swab along the nasal septum just above the floor of the passage to the nasopharynx until resistance is met
- 2) Rotate the swab gently against the nasopharyngeal mucosa for 10 - 15 seconds then gently remove swab



- 3) After the swab is removed from the patient place it into the tube of UTM™ transport medium all the way to the bottom of the tube
- 4) Holding the swab shaft close to the rim of the tube, break the applicator shaft at the colored breakpoint indication line. Hold the tube opening away from your face.

ORDERING INFORMATION:

Individual Components:

- 330C UTM™ tube for Viruses, Chlamydia, Mycoplasma and Ureaplasma
- 503CS01 Flexible Minitip Flocked Swab

Collection Kit:

- 305C Kit comprises UTM™ tube plus Flexible Minitip Flocked Swab

Copan Diagnostics Inc.
26055 Jefferson Ave.
Murrieta, California 92562 USA
Toll Free: (800)216-4016 (US & Canada)
Phone: (951) 696-6957 Fax: (951)600-1832
E-Mail: info@copanusa.com
www.copanusa.com



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If you suspect an Influenza-Like-Illness (ILI) Outbreak, please contact the **Yukon Communicable Diseases Control office** at 867-667-8323

10.5 APTIMA MULTITEST SWAB SPECIMEN COLLECTIONS

Aptima® Multitest Swab Specimen Collection Kit

Clinician collection procedure guide



Collection for vaginal swab specimens



Partially open the swab package and remove the swab. Do not touch the soft tip or lay the swab down. **If the soft tip is touched, laid down, or dropped, discard and get a new Aptima Multitest Swab Specimen Collection Kit.** Hold the swab, placing thumb and forefinger in the middle of the shaft covering the black score line. Do not hold the shaft below the score line.

Swab specimen collection guide for:

- *Chlamydia trachomatis* (CT)
- *Neisseria gonorrhoeae* (NG)
- *Trichomonas vaginalis* (TV) -
Collect a separate swab from CT/NG



Carefully insert the swab into the vagina about 2 inches (5 cm) past the introitus and gently rotate the swab for 10 to 30 seconds. Make sure the swab touches the vaginal walls so that moisture is absorbed by the swab. Withdraw the swab without touching the skin.



Break at score line



While holding the swab in hand, unscrew the tube cap. Do not spill the tube contents. **If the tube contents are spilled, discard and replace with a new Aptima Multitest Swab Specimen Collection Kit.** Immediately place the swab into the transport tube so the black score line is at the top of the tube. Align the score line with the top edge of the tube and carefully break the shaft. The swab will drop to the bottom of the vial. Discard the top portion of the shaft.



Tightly screw the cap onto the tube. When collecting multiple specimens from the same patient, the tube label provides a specimen source field for unique identification for the specimen location.



Hologic provides this collection procedure guide as a general informational tool only; it is not an affirmative instruction or guarantee of performance. It is the sole responsibility of the clinician to read and understand the appropriate package insert and comply with applicable local, state and federal rules and regulations.

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10.6 APTIMA UNISEX SWAB SPECIMEN COLLECTION KIT (FEMALE)

Aptima® Unisex Swab Specimen Collection Kit Female collection procedure guide



Collection for endocervical swab specimens



Use cleaning swab (white shaft swab with red printing) to remove excess mucus from cervical os and surrounding mucosa. Discard this swab.

Swab specimen collection guide for:

- *Chlamydia trachomatis* (CT)
- *Neisseria gonorrhoeae* (NG)



Insert collection swab (blue shaft swab with green printing) into endocervical canal. Gently rotate swab clockwise for 10 to 30 seconds to help ensure adequate sampling. Withdraw swab carefully; avoid any contact with vaginal mucosa.



While holding swab in hand, unscrew the tube cap. Do not spill tube contents. **If the tube contents are spilled, discard and replace with a new Aptima unisex swab transport tube.** Carefully break the swab shaft at the score line against the side of the tube. Discard top portion of swab shaft.



Re-cap swab specimen transport tube tightly.

Specimen Transport and Storage

- After collection, transport and store swab in the unisex specimen transport tube between 2°C to 30°C until tested.
- Specimens must be assayed with the Aptima assay for CT/NG and/or TV within 60 days of collection.
- If longer storage is needed, freeze between -20°C to -70°C for up to 12 months after collection in the Aptima unisex specimen transport tube.

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10.7 APTIMA UNISEX SWAB SPECIMEN COLLECTION KIT (MALE)

Aptima® Unisex Swab Specimen Collection Kit

Male collection procedure guide

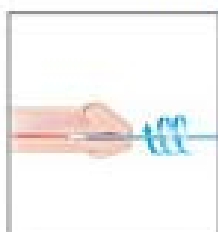


Collection for male urethral swab specimens

Patient should not have urinated for at least 1 hour prior to specimen collection.

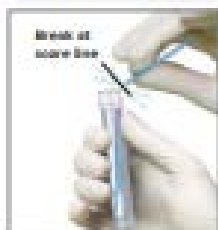
Swab specimen collection guide for:

- *Chlamydia trachomatis* (CT)
- *Neisseria gonorrhoeae* (NG)



Discard cleaning swab (white shaft with red print on label). The cleaning swab is NOT needed for male specimen collection.

Insert specimen collection swab (blue shaft swab with green printing) 2 cm to 4 cm into urethra. Gently rotate swab clockwise for 2 to 3 seconds in urethra to help ensure adequate sampling. Withdraw swab carefully.



While holding swab in hand, unscrew tube cap. Do not spill tube contents. **If tube contents are spilled, discard and replace with a new Aptima unisex swab transport tube.** Carefully break the swab shaft at the score line against the side of the tube. Discard top portion of swab shaft.



Re-cap swab specimen transport tube tightly.

Specimen Transport and Storage

- After collection, transport and store swab in the unisex specimen transport tube between 2°C to 30°C until tested.
- Specimens must be assayed with the Aptima assay for CT/NG and/or TV within 60 days of collection.
- If longer storage is needed, freeze between -20°C to -70°C for up to 12 months after collection in the Aptima unisex specimen transport tube.

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10.8 COPAN eSWAB COLLECTION GUIDE



*Beginning on **October 22nd**, **YHC/WGH** will be replacing current collection systems for bacteria with Copan eSwab.*

ESwab is a liquid based multipurpose collection and transport system that maintains the viability of aerobic, anaerobic and fastidious bacteria for up to 48 hours. The ESwab system collects and releases more specimen, significantly improving patient test results and decreasing the need for repeat testing due to insufficient sample

ESwab replaces multiple transport devices with just one system eliminating the need to stock multiple types of swabs.

ESWAB INSTRUCTIONS

ESWAB IS EASY TO USE:

- Perform hand hygiene and put on gloves if necessary.
- Perform positive patient identification.
- Open the peel pouch.
- Remove the swab.
- Collect the patient sample using the swab. **Avoid touching the swab applicator below the pink molded breakpoint** as this could lead to contamination and incorrect test results.
- Remove the screw cap from the tube and insert the swab **all the way to the bottom of the tube**.
- Holding the swab shaft **close to the rim of the tube**, and keeping the tube away from your face, break the applicator shaft at the pink breakpoint indication line.
- **Screw the cap on tightly to prevent leakage.**
- Dispose of the swab shaft in a regular trash receptacle.
- Apply patient identification label or write patient information on the tube label.
- Follow the standard operating procedures of transport and testing for your facility.
- Remove gloves if necessary and perform hand hygiene.

NOTE:

The ESwab Liquid Amies fluid maintains the viability of diverse bacteria. **Do not send a dry ESwab as this will lead to unsatisfactory results.**

If the tube spills its contents prior to inserting the swab, the liquid is non-toxic. Simply put the swab into another tube before sending it to the laboratory and discard the spilled tube.

If the tube spills after contamination, follow procedure for blood and body fluid clean up. Refer to your facility's infection control manual for further direction.






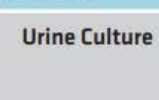


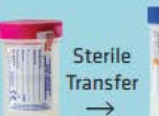

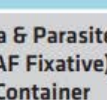


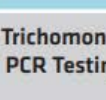


If contaminated fluid splashes onto the personnel collecting the sample, treat as a blood and body fluid exposure. Refer to your facility's infection control manual for further direction.




Products are not to scale. October 4, 2018

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10.9 MICROBIOLOGY CONTAINER GUIDE

The Correct Swab/Container for the Job					Microbiology Laboratory (Yukon Territory)	
Sterile Container/ Sterile Syringe		Swab		Blood Culture	Respiratory Suction	Molecular GC(gonorrhea)/CT(chlamydia) PCR Testing
<div></div> <p>CSF</p> <p>BEST option for aerobic, anaerobic and fungal cultures:</p> <ul style="list-style-type: none">SputumStool for bacterial culture or <i>C. difficile</i> testingTissue/biopsiesSterile body fluids (eg. pleural fluid)PusFluids from drains <p>Unpreserved, direct specimen in sterile container.</p> <p>Acceptable for mould or mycobacterial culture.</p> <p>Syringe: Remove needle and cap for transport.</p>		<div></div> <p>Flocked eSwab</p> <p>Use when tissue or fluid cannot be obtained.</p> <ul style="list-style-type: none">Throat cultureEar cultureEye cultureBacterial vaginosis and/or yeast cultureARO screens (MRSA, VRE, CPO)Group B Strep screenGenital cultureWound culture <p>Do NOT use for mould or mycobacterial culture.</p> <p>Do NOT use for viral testing.</p>		<div></div> <p>Add 8-10 mL of blood to each bottle.</p> <p>Recommend 2 sets (4 bottles) over 24 hour period.</p> <p>NOTE: Fungal culture requests on blood culture will extend incubation to 21 days.</p>	<div></div> <p>Tracheal and other respiratory specimens using suction. Remove tubing lid and apply white plain lid prior to transport to lab.</p>	<div></div> <p>Urine:</p> <ul style="list-style-type: none">Patient should not void for 1h prior to collectionCollect the "First Catch" urine, i.e. the first 15-20 mL of urine voidedMidstream urine specimens (i.e. urine C&S) are not suitable for STI testing
				Urine Culture	Stool Culture	Stool for <i>C. difficile</i> testing
				<div></div> <p>Urine Culture</p>	<div></div> <p>Stool Culture</p>	<div></div> <p>Stool for <i>C. difficile</i> testing</p>
				<div></div> <p>Boric Acid Tube: Sterile transfer to line.</p> <p>MIX WELL - DISSOLVE TABLET.</p>	<div></div> <p>NOT to be used for <i>C. difficile</i> testing.</p>	<div></div> <p>Ova & Parasite (SAF Fixative) Container</p>
					<div></div> <p>Fecal specimens for O&P examination.</p>	<div></div> <p>Pediatric Blood Culture</p>
						<div></div> <p>Trichomonas PCR Testing</p>
						<div></div> <p>Refer to WGH Lab Manual.</p>
						<div></div> <p>Collect separate swab from GC/CT PCR testing.</p>
Miscellaneous						
The following kits/swabs can be obtained from WGH Laboratory:						
• Pinworm Paddle • Pertussis Transport Media						










How you want to be treated.

YHC Specimen Aid - October 10, 2018

YHC Specimen Aid - October 10, 2018

10.10MICROBIOLOGY SWAB GUIDE

Swab Type	Copan E swabs (White and purple)	Copan Transystem (blue)	Red Viral	Blue Viral	Aptima Unisex Swab	Aptima Multitest Swab	Copan Liquid Amies (Green)
Swab Picture							
Testing:							
Covid-19 (In-house)			✓	✓			
Covid-19 (Referred out)			✓	✓	✓		
Bacterial Culture (Throat, wound, genital etc.)	✓	✓					
Chlamydia/GC (PCR)					✓	✓ (Vaginal & Rectal only)	
Trichomonas Vaginalis						✓	
Herpes Simplex Virus				✓ (acceptable but not preferred)		✓	
Bordetella Pertussis							✓

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APPENDIX I. GLOSSARY OF LIS SOFTWARE

Description of Uses by WGH Laboratory		Maintained by
Meditech (Modules used by Laboratory: LAB, ADM, EDM, MM, NUR, PCI)	Database- stores confidential information:	YHC IS
	<u>ADM</u> : Admitting outpatients- Admissions	
	<u>EDM</u> : Managing ER patients (ED Tracker)	
	<u>LAB</u> : Ordering laboratory tests	
	Tracking status of samples & tests (receiving samples)	
	Verifying results	
	Looking up test results	
	Printing labels for specimens; making batch labels	
	Printing reports	
	Reviewing pending tests	
	Reviewing outstanding tests	
	Retrieving Patient contact information	
	Ordering Supplies in Stores	
	<u>PCI</u> : Retrieving Patient contact information (Patient Care Inquiry)	
	<u>NUR</u> : Recording Timecard/ hours worked	
Excelleris	Reporting storage system for distributing reports from Referral Laboratories	BC government
SharePoint	YHC & Laboratory Document Library storage & communication tool	YHC
Muse	Provides secure exchange of ECG reports between YHC and SPH for analysis by physicians	Vancouver Coastal Health
MARS	Provides secure exchange of Holter monitor reports between YHC and SPH (feeds into MUSE)	Vancouver Coastal Health
Plexia	Information System used by Physicians in private clinics; not used by Laboratory staff (LIS currently adding Requisition links between Meditech & Plexia)	Yukon Private Physician Clinics
Mirth Connect	An interface engine that allows movement of reports and test orders between Meditech and Plexia	YHC
Central Data Station (CDS)	Used for iSTATs (Point of Care)	WGH Laboratory
NovaNet	Nova Stat Strip- Used for Glucometers (Point of Care)	WGH Laboratory

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APPENDIX II. SUMMARY OF CHANGES (since last published version)

Version 2.0

Section & Page Number	Subject	Change	Date/Initials



RE: Labortaory Guide
to Service.msg

Final Authorization by: Dr. Ostry Date: December 24,2020

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APPENDIX III. QUICK REFERENCE

1. All Requisitions - Hyperlink to all requisitions in [Section 4.1](#), can print requisitions from website
2. Specimen Rejection – [Section 3.4](#), includes information on IRREPLACEABLE specimen. Reference to form ACC10F
3. Onsite Test Reference - [Section 2.2](#)
 - [Transfusion Medicine](#)
 - [Body Fluids](#)
 - [Microbiology/Virology](#)
 - [24 Hour Urine](#)
4. List of Patient Instructions – [Section 10.1](#)
5. Microbiology Container Guide – [Section 10.9](#)
6. Microbiology Swab Guide – [Section 10.10](#)

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