

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
G-6-PD Assay (see <u>Glucose-6-Phosphate Dehydrogenase Assay</u> )						
G-Banding (see <u>Chromosome Analysis, Blood, Chromosome Analysis, Bone Marrow/Blood Oncology Studies, Chromosome Analysis, Lymph Node/Tumor</u> )						
G6PD Assay (see <u>Glucose-6-Phosphate Dehydrogenase Assay</u> )						
Gabapentin, Serum/Plasma Neurontin	Toxicology/Special Chemistry	6 mL Red or 6 mL Green or 4 mL Lavender top Vacutainer tube GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	12.0 - 120.0 $\mu$ mol/L	2006-06-01	Alert value is 140.0 $\mu$ mol/L.  Minimum effective concentration is 12.0 $\mu$ mol/L. A desirable clinical outcome may be expected between 70.0-120.0 $\mu$ mol/L. Toxicity may occur with increasing frequency above 146.0 $\mu$ mol/L.
GALACTOM (Serum) (see <u>Galactomannan Aspergillus Antigen, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Galactomannan Aspergillus Antigen, Fluid GALTCTOMF ( BAL Fluid)	Clinical Immunology	Bronchoalveolar lavage (BAL) fluid GENERAL LABORATORY REQUISITION	Batched twice weekly Monday/Tuesday and Wednesday/Thursdays routinely  <b>Note:</b> Samples to be in lab no later than noon Monday and Wednesday to be pretreated for set up the following day.	Index: <0.5 Non-Reactive	2013-11-25	<p><b>Test limited to Infectious disease, Hematologists, Respirologists and Microbiologists</b></p> <p>NOTE: Outside clients must have pre-authorization by the LHSC microbiologist before sending.</p> <p>Piperacillin/Tazobactam have been associated with false positive results, if deemed a false positive result please contact the microbiologist.</p> <p>Refer to template associated with the report.</p> <p>Send samples directly to the lab unopened. It is imperative that samples have minimal exposure to air before testing. Store at 2oC-8oC after hours.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Galactomannan Aspergillus Antigen, Serum GALACTOM (Serum)	Clinical Immunology	5 mL Gold top Vacutainer tube GENERAL LABORATORY REQUISITION	Batched twice weekly Monday/Tuesday and Wednesday/Thursdays routinely <b>NOTE:</b> Samples to be in lab no later than <u>noon Monday and Wednesday.</u>	Index: <0.5 Non-Reactive	2013-11-25	<p><b>Test limited to Infectious disease, Hematologists, Respirologists, Microbiologists</b></p> <p>NOTE: Outside clients must have pre-authorization by the LHSC microbiologist before sending.</p> <p>Piperacillin/Tazobactam have been associated with false positive results, if deemed a false positive result please contact the microbiologist.</p> <p>Refer to template associated with the report. Send samples to the lab <b>unopened</b>. It is imperative that samples have minimal exposure to air before testing. Store (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Galactose-1-Phosphate and Galactose, Erythrocytes Galactosemia	Biochemical Genetics	4 mL K <sub>2</sub> or K <sub>3</sub> EDTA Lavender top Vacutainer tube  <b>Pediatric</b> 0-2 yrs: 3 x 0.5 mL Lavender top 2-10 yrs: 3 mL Lavender top BIOCHEMICAL GENETICS LAB REQUISITION	As required	Galactose-1-Phosphate: 0-50 ug/g Hb  Galactose: <5 ug/g Hb	2010-11-26	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Galactose-1-Phosphate Uridyltransferase- Qualitative, Dried Blood Spot Galactosemia Screen	Biochemical Genetics	Dried blood spots on a Newborn Screening-type card.  Blood can be from a heel prick, finger prick, or Green top (Sodium or Lithium Heparinized) Vacutainer tube. BIOCHEMICAL GENETICS LAB REQUISITION	As required		2010-11-26	
Galactose-6-Sulfatase, Fibroblast MPSIVA Morquio A Disease	Biochemical Genetics	Fibroblast Culture BIOCHEMICAL GENETICS LAB REQUISITION	As required	95-360 nmol/mg protein/17 hr.	2008-06-10	
Galactosemia (see <u>Galactose-1-Phosphate and Galactose, Erythrocytes</u> )						
Galactosemia Screen (see <u>Galactose-1-Phosphate Uridyltransferase-Qualitative, Dried Blood Spot</u> )						
GALTCTOMF ( BAL Fluid) (see <u>Galactomannan Aspergillus Antigen, Fluid</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gamma Glutamyl Transferase, Plasma GGT GGTP	Core	4.5 mL Green (Lithium Heparin) top Vacutainer  Serum from a 5 mL Gold top or 6 mL Red top Vacutainer tube is also acceptable.  <b>Pediatric:</b> 0-2 years: 0.6 mL Green top Microtainer (BD 365985)< 2-10 years: 3 mL Green top tube GENERAL LABORATORY REQUISITION	As required	0-5 days: <185 U/L 6 days-6 months: <204 U/L Males >6 months: <61 U/L Females >6 months: <41 U/L	2009-08-07	Hemolysis may affect results  Pediatric values may be high, falling to adult levels at puberty. Elevated in obstructive jaundice, intrahepatic cholestasis and some liver metastases. May be normal or near normal with hepatitis or cirrhosis; also increased by alcohol, anticonvulsants and barbiturates.
Gamma-Hydroxybutyrate, Urine-Qualitative Test GHB	Toxicology/Special Chemistry	Random urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	Negative	2008-06-06	
GAP (see <u>Electrolytes, Plasma</u> )						
Garamycin (see <u>Gentamicin, Serum/Plasma</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gastrin, Serum	Core	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube</p> <p><b>Pediatric:</b> 2-10 years: 3 mL Gold top Vacutainer tube GENERAL LABORATORY REQUISITION</p>	Referred out Monday-Friday	< 100 ng/L	2017-11-07	<p>Main use is to diagnose Zollinger-Ellison syndrome (gastrinoma).</p> <p>Elevated levels also occur with pernicious anemia, atrophic gastritis, previous vagotomy, renal failure, or use of acid suppressing drugs such as histamine H<sub>2</sub>-receptor antagonists or proton pump inhibitors.</p> <p><b>Please note: Testing method changed November 7, 2017.</b> Allow blood to clot at room temperature and separate WITHIN 30 minutes by centrifugation. Transfer serum to a labelled tube, cap tightly, and freeze.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gastrointestinal Virus	Microbiology	Faeces (1 to 2 grams) PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred weekdays to Public Health Laboratory	See report	2019-12-18	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gastrointestinal/Hepatobiliary Specimens for Cytology Esophageal Brush/Wash Stomach Brush/Wash Bileduct Brush/Wash Duodenal Brush/Wash	Cytopathology-UH	Non-Gynaecological: Gastrointestinal/Hepatobiliary CYTOPATHOLOGY REQUISITION-NON-GYNAECOLOGICAL AREA	Weekdays		2005-08-01	Brush devices should be cut just above the brush area and totally immersed in Cytolyt solution.  Cytopathology Laboratory Room A3-242 UH (519) 685-8500 x 36391/36392  Clinical history is an important component for diagnostic interpretation. The specimen is Thinprep processed so the total specimen volume should not exceed one orange top specimen container with Cytolyt included.
Gaucher Disease (see <u>Beta-Glucocerebrosidase, Leukocyte/Fibroblasts</u> )						
Gaucher Disease Monitoring (see <u>Chitotriosidase, Plasma</u> )						
GBS Screen (see <u>Group B Streptococcus Screen</u> )						
GC Culture (see <u>Neisseria gonorrhoeae Culture</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Genomic Microarray (see <u>Prenatal Microarray</u> )						
Gentamicin,Serum/PI asma Garamycin Aminoglycosides	Core (VH)	4.5 mL Green (Lithium Heparin) top Vacutainer tube  Serum from a 5 mL Gold top or 6 mL Red top Vacutainer tube is also acceptable.  <b>Pediatric:</b> 0-2 years: 0.6 mL Green top Microtainer (BD 365985) 2-10 years: 2 mL Green top tube GENERAL LABORATORY REQUISITION	Daily	<u>Therapeutic Range:</u>  <b>Trough (Pre Dose):</b> < = 1.4 mg/L  <b>Peak (Post Dose):</b> 6-10 mg/L	2010-07-12	
Gestational Glucose Tolerance Test (see <u>Glucose Tolerance Test</u> )						
GGT (see <u>Gamma Glutamyl Transferase,Plasma</u> )						
GGTP (see <u>Gamma Glutamyl Transferase,Plasma</u> )						
GHB (see <u>Gamma-Hydroxybutyrate, Urine-Qualitative Test</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gliadin (DGP) Antibodies Anti Deamidated Gliadin Peptide	Core	6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	For Deamidated Gliadin Antibody IgA and IgG: <20 CU: Negative 20-30 CU: Weakly Positive >30 CU: Positive	2010-01-07	Referred out Monday - Thursday  The test done for Celiac Disease is Tissue Transglutamase Antibodies.  For screening for diagnosis of Celiac Disease, the patient should not be on a gluten free diet.  False negative results may occur in individuals who are IgA-deficient.
Glomerular Basement Membrane, IgG antibody (see <u>Anti Glomerular Basement Membrane, Serum</u> )						
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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glucagon, Plasma	Core	<p><b>Adult:</b> 4 mL Lavender top Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 2-3 x 0.5 mL Lavender top Microtainers 2-10 years: 3 mL Lavender top Vacutainer tube</p> <p>GENERAL LABORATORY REQUISITION</p>	Referred out Monday-Thursday	<p>&lt; or =6 hours: 100-650 pg/mL 1-2 days: 70-450 pg/mL 2-4 days: 100-650 pg/mL 4-14 days: declining gradually to adult levels &gt;14 days: &lt; or =80 pg/mL (range based on 95% confidence limits)</p>	2014-07-14	
Glucose Tolerance Test GTT Gestational Glucose Tolerance Test	Core	<p>4.5 mL Green top Vacutainer tube 4.5 mL grey top tube</p> <p><b>Pediatric:</b> 0-2 years: 0.6 mL Green pk. 2-10 years: 3 mL Green top</p> <p>GENERAL LABORATORY REQUISITION</p>	Monday - Friday 0800 - 1600 h	* See Interpretive Comments for the diagnosis of Diabetes Mellitus	2007-01-11	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glucose, Plasma Random Glucose Fasting Glucose	Core	4.5 mL Green top Vacutainer tube 4.5 mL grey top tube <b>Pediatric:</b> 0-2 yrs: Green top Microtainer (BD 365985) 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	As required	<b>Random</b> < 1 year 2.6-11.0 mmol/L > 1 year 3.4-11.0 mmol/L  Fasting levels - no caloric intake for at least 8 hours 3 years - 16 years: 2.8-6.1 mmol/L Adult (greater than 16 years): 3.9-6.1 mmol/L	2008-11-15	
Glucose,CSF	Core	CSF GENERAL LABORATORY REQUISITION	As required	2.2-3.9 mmol/L		
Glucose,Fluid	Core	Fluid GENERAL LABORATORY REQUISITION	As required	See Report	2010-05-17	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glucose-6-Phosphate Dehydrogenase Assay G6PD Assay G-6-PD Assay	Core	4 mL K <sub>2</sub> or K <sub>3</sub> EDTA Lavender top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 0.5 mL Lavender top Microtainer 2-10 years: 3 mL Lavender top tube GENERAL LABORATORY REQUISITION	Monday-Friday 0800-1600	8.3-17.0 IU/g Hb	2008-11-15	<p>Reticulocytes have higher G-6-PDH levels than mature red cells. It is not recommended that assays be performed after a severe hemolytic crisis, since G-6-PDH levels may appear falsely elevated."</p> <p>Leukocytosis falsely elevates G-6-PDH levels in extreme anemia.            Intermediate Deficiency: 2.0-8.2 IU/g Hb            Severe Deficiency: &lt;2.0 IU/g Hb            Glucose-6-phosphate dehydrogenase (G6PD) is an enzyme in the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells. Patients with G6PD deficiency are (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glutamic Acid Decarboxylase-65 Antibodies (see <u>Anti Glutamic Acid Decarboxylase</u> )						
Glutethimide, Serum Doriden	Core	5 mL Gold top Vacutainer tube  <b>Avoid gel- separator tubes</b> GENERAL LABORATORY REQUISITION	Referred out Monday- Thursday	Therapeutic: 0.9 - 3.7 µmol/L	2005-07-01	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glycated Hemoglobin Glycosylated Hemoglobin Hemoglobin A1c HbA1c	Core	4 mL K <sub>2</sub> or K <sub>3</sub> EDTA Lavender top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 0.5 mL Lavender top Microtainer 2-10 years: 3 mL Lavender top tube GENERAL LABORATORY REQUISITION	As required	Non-diabetic: <6.0% Prediabetes: 6.0% - 6.4% Diabetes: > or = 6.5% Target levels for Type1 and Type 2 Diabetes: < or =7%	2010-06-28	HbA1c measurement is an index of the integrated plasma glucose values over the past 6-8 weeks, which is not subject to the fluctuations observed in blood glucose concentrations. Therefore we will cancel duplicates as "HbA1c already tested within 6 wks".  <b>Screening and Diagnosis of Type 2 Diabetes</b>  <b>HbA1c Result (%) Dysglycemia Category</b> <5.5Non-diabetic 5.5-5.9At Risk 6.0-6.4Prediabetes >or=6.5 Diabetes  <b>Therapeutic Targets Adults Results (%) Targets</b> Less than or = 6.5Adults with (more...)



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Glycol Screen Glycols Ethylene Glycol Propylene Glycol	Core (VH)	5 mL Gold top Vacutainer tube. Lithium Heparin or EDTA plasma is also acceptable.  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. 2-10 yrs: 2 mL Red top <b>GENERAL LABORATORY REQUISITION</b>	As required	Negative		<p>CRITICAL VALUE to be phoned to Nurse or Physician immediately:</p> <p>All positive results.            Toxic: &gt;3.2 mmol/L            Should be requested specifically if poisoning suspected.</p> <p>Performed by Gas Liquid Chromatography as part of Glycol Fractionation.            Glycol and Volatile Ordering Technical Aid</p> <p><b>For SRA staff when a sample is received at UH:</b></p> <p>UH SRA:            Please call VH SRA when a sample is received.            VH SRA:            Please alert technologist that a sample is on the way (more...)</p>

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Glycols (see <u>Glycol Screen</u> )						
Glycosylated Hemoglobin (see <u>Glycated Hemoglobin</u> )						
GM2 Gangliosidosis (see <u>Beta-N-Acetylhexosaminidase %A, A, A+B, Leukocyte/Plasma/Fibroblasts</u> )						
GMI Gangliosidosis (see <u>Beta-Galactosidase, Leukocyte/Plasma/Fibroblasts</u> )						
Gonorrhoeae culture (see <u>Neisseria gonorrhoeae Culture</u> )						
Gravol (see <u>Diphenhydramine, Urine Qualitative</u> )						
Group and Screen (used for Blood Grouping, Antibody Screen and Crossmatching)	Blood Transfusion	<b>Pediatric &lt;4 months:</b> 1 mL Lavender (EDTA) <b>Infants &gt;4 months and &lt;3 years:</b> 2 mL Lavender (EDTA) top <b>Children &gt;3 years and Adults:</b> 6 mL Pink (EDTA) top Vacutainer tube BLOOD TRANSFUSION REQUISITION or Electronic order	Daily	See report	2012-06-25	Crossmatched blood can be available within 5 to 10 minutes upon receipt of request to convert Group and Reserve to crossmatch. N/A
Group B Strept Screen (see <u>Group B Streptococcus Screen</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Group B Streptococcus Screen Group B Strept Screen GBS Screen	Microbiology (VH)	Placental, vaginal/rectal swab MICROBIOLOG Y REQUISITION	Daily		2006-07-01	

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Growth Hormone, Plasma/Serum Human Growth Hormone hGH	Core	<p><b>Adult:</b> 4.5 mL Light Green (Li-Heparin) top Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 0.5 mL Light Green top (Li-Heparin) Microtainer 2-10 years: 3 mL Light Green top (Li-Heparin) Vacutainer tube</p> <p>Red, Gold, or Lavender (EDTA) top tubes are also acceptable</p> <p>GENERAL LABORATORY REQUISITION</p>	<p>Samples are batched and only performed on Wednesday afternoon. Received samples from outside this timeframe are aliquoted and frozen.</p>	<p><u>Male:</u> 0 10 years: ≤ 6.3 g/L* 11 17 years: ≤ 10.8 g/L* 21 77 years: ≤ 2.5 g/L*</p> <p><u>Female:</u> 0 10 years: ≤ 7.8 g/L* 11 17 years: ≤ 8.1 g/L* 21 77 years: ≤ 9.9 g/L*</p> <p>*Basal levels of growth hormone do not have diagnostic relevance. Stimulation or suppression tests are needed to diagnose a growth hormone-related disorder.</p> <p>Children: ≥ 6 g/L followin (more...)</p>	2017-08-14	<p>Biotin may interfere with this test. Samples should not be taken from patients receiving high biotin doses (i.e. &gt; 5 mg/day) until at least 8 hours after the last biotin administration.</p> <p>This assay is affected by pegvisomant (a highly selective growth hormone receptor antagonist).</p> <p>This assay is not suitable for pregnant women due to cross-reactivity with placental growth hormone.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
GSDII (see <u>Alpha-Glucosidase, Dried Blood Spot, Alpha-Glucosidase, Fibroblasts</u> )						
GTT (see <u>Glucose Tolerance Test</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gynaecological Conventional Smear for Cytology PAP Smear Combined Cervical/Endocervical Smear Endocervical Smear Vaginal Smear	Cytopathology-UH	Gynaecological: Conventional Smear  Smear on fixed slide CYTOPATHOLOGY REQUISITION-GYNAECOLOGICAL AREA	Weekdays		2005-08-01	Cytopathology Laboratory Room A3-242 UH (519) 685-8500 x 36391/36392  Clinical history is an important component for diagnostic interpretation. Please check pertinent clinical information on the requisition. Spray the smeared slide immediately with Cytology spray fixative. Allow to dry before placing in the slide transport container. Using a pencil label the frosted end of the smeared slide with the patient's name. <b>Unlabelled slides cannot be processed</b>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Gynaecological Liquid Based PAP test for Cytology Liquid based PAP test for Cytology PAP test LBP	Cytopathology-UH	Cervical, endocervical, vaginal sample in a specimen container CYTOPATHOLOGY REQUISITION-GYNAECOLOGICAL AREA	Weekdays		2005-08-01	Cytopathology Laboratory Room A3-242 UH (519) 685-8500 x 36391/36392  Clinical history is an important component for diagnostic interpretation. The specimen in Thinprep processed so the specimen should be collected in specific gyn. collection containers.