

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
L-Asparaginase Asparaginase Activity	Core	4 mL Lavender top Vacutainer tube L- ASPARAGINAS E REQUISITION	Referred out Monday- Thursday	See report	2019-02-13	
Lactate Dehydrogenase Isoenzymes (serum) LD Isoenzymes	Test not available		Test no longer available effective February 1, 2001.			
Lactate Dehydrogenase,Fluid	Core	Fluid GENERAL LABORATORY REQUISITION	As required	See report	2010-05-17	Hemolysis may affect results.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lactate Dehydrogenase, Plasma LDH LD	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. Pediatric: 0-2 years: 0.5 mL Green top Microtainer 2-10 years: 2 mL Green top tube GENERAL LABORATORY REQUISITION	As required	Children: 0-20 days: <600 U/L 21 days-15 years: 300 U/L Adult: Male (>15 years): <225 U/L Female (>15 years): <214 U/L	2008-11-15	Hemolysis may cause falsely elevated results. Increases occur due to necrosis of liver, skeletal muscle, red blood cells, bone marrow and malignancies. Very non-specific. In healthy children, levels may be elevated up to 800 IU/L.

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Lactate, Plasma	Core UH & VH	6 mL Grey top Vacutainer tube Pediatric: 2-10 years: 2 mL Grey top tube GENERAL LABORATORY REQUISITION	As required	0.50-2.20 mmol/L	2008-11-15	Hemolyzed, lipemic and icteric samples may cause interference with results. >4.0 mmol/L (Emergency Department only) Increased in sustained hypoxia and several metabolic disorders. Lactic acidosis is a frequent cause of increased anion gap. Centrifuge and separate plasma within 15 minutes of blood collection.
Lactate,CSF	Core	CSF GENERAL LABORATORY REQUISITION	As required	See report		RBC hemolysis may cause interference (xanthochromia) with results.
Lactate-D (see <u>D-Lactate,Serum</u>)						
Lactate: Pyruvate Ratio (see <u>Pyruvate, Whole Blood</u>)						
Lactate:Pyruvate Ratio (see <u>Pyruvate, CSF</u>)						
Lamictal (see <u>Lamotrigine,Serum</u>)						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lamotrigine, Serum Lamictal	Toxicology/Special Chemistry	6 mL Red top Vacutainer tube or 4.5 mL Green (Lithium Heparin) top Vacutainer tube GENERAL LABORATORY REQUISITION	Once per week	4.0-39.0 µmol/L		
Lanoxin (see <u>Digoxin</u>)						
LATS (see <u>Anti-Thyroid Stimulating Hormone Receptor Antibodies, Serum</u>)						
LBP (see <u>Gynaecological Liquid Based PAP test for Cytology, HPV testing, for Gynaecological Liquid Based PAP test (Cytology),</u>)						
LCFA (see <u>Long Chain Fatty Acids, Plasma/Serum</u>)						
LD (see <u>Lactate Dehydrogenase, Plasma</u>)						
LD Isoenzymes (see <u>Lactate Dehydrogenase Isoenzymes (serum)</u>)						
LDH (see <u>Lactate Dehydrogenase, Plasma</u>)						
LDL (see <u>Cholesterol-LDL, Plasma</u>)						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lead, Erythrocytes	Trace Elements	Reference number 368381 - HMMS# 11073 - 6mL K2-EDTA Royal Blue Vacutainer tube TRACE ELEMENTS REQUISITION	Batched analysis	SI Units (Reported on Patient Chart): 0.00-0.18 µmol/L Conventional Units: 0.0-36.8 µg/L		Reference Ranges are based on Non-Occupationally exposed population. Find Interpretive Comment and Clinical Information here:

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lead, Whole blood	Trace Elements	Reference number 368381 - HMMS# 11073 - 6mL K2-EDTA Royal Blue Vacutainer tube TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units</u> (Reported on Patient Chart): Reference Range All ages: 0.00-0.10 µmol/L Alert Value: 0-16 years:>0.12 µmol/L Action Value: 0-16 years:>0.48 µmol/L >=17 years:>1.00 µmol/L <u>Conventional Units:</u> Reference Range All ages:0.0-20.0 µg/L Alert Value: 0-16 years:>25.0 µg/L Action Value: 0-16 years:>100.0 µg/L >=17 (more...)		Reference Ranges are based on Non-Occupationally exposed population. Find Interpretive Comment and Clinical Information here:

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lead,Urine	Trace Elements	24 hour urine collected in an unused 24 hour urine container or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u> Random Urine: 0-14.5 nmol/L µmol/mol creatinineAgeFe maleMale0-110-1.720-1.6512-190-1.050-1.0220-290-1.190-0.9030-390-1.430-1.0640-490-1.700-1.1150-590-2.010-1.2860-690-1.980-1.3470-790-2.070-1.45≥800-2.540-1.65 24 Hour Urine: 0-19.3 nmol/d <u>Conventional Units:</u> Random Urine: 0-3.0 µg/L (more...)		Reference Ranges are based on Non-Occupationally exposed population. Find Interpretive Comment and Clinical Information here:

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Leber's Hereditary Optic Neuropathy LHON	Molecular Diagnostics	Whole blood-2 x 4 mL Lavender EDTA top Vacutainer tube MOLECULAR DIAGNOSTIC REQUISITION	As Required Monday - Friday 0800 - 1600 h	See report		<p>For more information click on: Molecular Diagnostic Laboratory N/A</p> <p>Please note that these samples will be subjected to direct mutational analysis which may not account for all cases of the disease diagnosed.</p> <p>Further information will be supplied with the test result.</p> <p><u>Analysis:</u> Lebers hereditary optic neuropathy (LHON), is a maternally inherited disease resulting in optic nerve degeneration and cardiac dysrhythmia¹. Three mitochondrial DNA point mutations (nt.#3460G>A, nt.#11778G>A and nt.#14484T>C (more...))</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Leflunomide Arava Teriflunomide	Core (VH)	6 mL Red top or 4 mL Lavender (EDTA) top Vacutainer tube GENERAL LABORATORY REQUISITION	Weekly, test is performed on Thursdays	50-100 ug/mL Note: For couples planning a pregnancy, confirmation of teriflunomide concentrations (either father or mother receiving therapy) of <0.02 ug/mL in two separate tests at least 14 days apart is highly recommended.	2013-05-27	If the results are to be faxed back from the referral laboratory, please indicate so clearly on the request.
Legionella Antigen Detection	Microbiology (VH)	Urine PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred out weekdays to Public Health Laboratory		2006-07-01	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Legionella Culture	Microbiology (VH)	Respiratory (suctioned sputum, tracheal aspiration or bronchial wash) Fluids (CSF, pericardial, peritoneal, pleural) Tissue (liver, lung, renal) Wounds or Abscess Material MICROBIOLOGY REQUISITION	Daily			
<u>Leishmania (see Ova and Parasites-Blood and Tissue)</u>						
Leishmaniasis Serology	Microbiology (VH)	Blood-5 mL Gold or 6 mL Red top Vacutainer tube PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred weekly to the National Reference Centre for Parasitology		2010-09-13	Adequate clinical and epidemiological information must accompany specimen.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Leptospira Antibody	Microbiology (VH)	Blood-5 mL Gold or 6 mL Red top Vacutainer tube PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred out weekly to National Microbiology Laboratory		2009-02-22	

Lesch-Nyhan Syndrome (see Hypoxanthine-Guanine Phosphoribosyl Transferase, Whole blood)

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Leukemia/Lymphoma Investigation	Flow Cytometry (VH)	<p>Bone marrow collected in K₂ EDTA (preferred for Acute Leukemia and Lymphoma) or Peripheral blood collected in a 4 mL Lavender K₂ EDTA top Vacutainer tube (preferred for Chronic Leukemia) Referred-In Samples: FLOW CYTOMETRY REQUISITION</p>	<p>Monday-Friday 0800-1600 Fridays or prior to STAT holidays, routine specimens must be received in the Flow Cytometry Laboratory at Victoria Hospital by 1300. For after hours and weekend requests, page the Hematologist on-call at (519) 685-8500 x 14999.</p>	<p>See report * For new acute leukemia patients, preliminary results are communicated to the attending physician immediately upon completion of analysis with approval from the Hematopathologist or designate on the same day as the sample is received.</p>	2006-06-01	
Leukocyte Count (LKC) (see <u>Complete Blood Count</u>)						
Leukocyte Cystine (see <u>Cystine, Leukocyte</u>)						
Leukocytes,Urine	Core	Random urine GENERAL LABORATORY REQUISITION	As required	0 cells/uL		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Levetiracetam Keppra	Core	6 mL Red top Vacutainer tube (preferred) Plasma is also acceptable from EDTA Lavender or Royal Blue top; Sodium Heparin green top, Sodium Citrate light blue top. GENERAL LABORATORY REQUISITION	Referred out Monday- Thursday	12.0 46.0 g/mL Toxic level not well established. Interpretation should include a clinical evaluation.		

LH (see Luteinizing Hormone, Plasma/Serum)

LHON (see Leber's Hereditary Optic Neuropathy, Mitochondrial Genome Sequencing and Depletions/Integrity Pane)

Li (see Lithium, Serum)

Li-Fraumeni Syndrome (see P53 Carrier Testing)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lidocaine, Serum/Plasma Xylocaine	Core	<p>Adult: 6 mL Red top Vacutainer tube</p> <p>Pediatric: 0-2 years: 0.5 mL Red top Microtainer 2-10 years: 3 mL Red top Vacutainer tube</p> <p>Plasma (heparin or EDTA) is also acceptable.</p> <p><u>Blood collection tubes with separator gels are not acceptable for this test.</u> GENERAL LABORATORY REQUISITION</p>	Referred out Monday- Thursday	1.5-5.0 mg/L	2009-09-29	
Light Chain Screen (see <u>Protein Electrophoresis, Urine</u>)						
Light Chains (see <u>Immunofixation Electrophoresis, Serum, Immunofixation Electrophoresis, Urine</u>)						
<u>LINCL (see <u>Tripeptidyl Peptidase 1, Dried Blood Spot/Fibroblast</u>)</u>						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lipase	Core (all sites)	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 Pediatric: 0-2 years: 0.5 mL Green Microtainer 2-10 years: 2 mL Green top tube GENERAL LABORATORY REQUISITION	As required	13-60 U/L	2014-06-02	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
LIPID LADEN MACROPHAGE INDEX for OIL RED O- Respiratory and Exfoliative Samples for Cytology Bronchoalveolar lavage (BAL) for LLM -Oil Red O	Cytopathology- UH	Non- gynecological: Respiratory BAL CYTOLOGY REQUISITION- Non Gynecological Area	Weekdays	See report	2019-06-07	<p>Specimens procured at VH- CALL ext. 55410 to alert the cytotechnologist. DELIVER fresh sample directly to VH, Rm. D2-700, Pathology Attention: CYTOLOGY</p> <p>Clinical history is an important component for diagnostic interpretation. Fixed specimens will not be processed for Oil Red O. The total fresh specimen volume should not exceed one orange top specimen container.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lipid Profile Cholesterol, Triglyceride, HDL, LDL	Core UH & VH	4.5 mL Green top Vacutainer Pediatric: 0-2 years: 0.5 mL Green Microtainer 2-10 years: 1 mL Green top tube GENERAL LABORATORY REQUISITION	As required	See reference ranges and interpretive comments for individual tests. Increased risk of cardiovascular disease at triglycerides level greater than 2.0 mmol/L; increased risk of acute pancreatitis at triglycerides level greater than 10.0 mmol/L (Lancet 2014;384:626-635).	2010-12-03	
Lipoprotein (a) Lpa Lp(a) Lipoprotein a Lipoprotein A	Core	4 mL Lavender (EDTA) top Vacutainer tube or 6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	Greater than 30 mg/dL associated with 1.7-fold increased risk of cardiovascular disease Less than 8.94 mg/dL lower limit for reporting	2014-07-28	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lipoprotein a (see Lipoprotein (a))						
Lipoprotein A (see Lipoprotein (a))						
Liquid based PAP test (Cytology) (see HPV testing, for Gynaecological Liquid Based PAP test (Cytology) .)						
Liquid based PAP test for Cytology (see Gynaecological Liquid Based PAP test for Cytology)						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lithium, Serum Li	Core (VH)	5 mL Gold top Vacutainer tube Pediatric: 0-2 years: 0.5 mL Red Microtainer 2-10 years: 2 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	0.60-1.20 mmol/L	2008-11-15	The light metal, lithium, was discovered in mineral compounds, by August Arfvedson in 1817 and electrolytically purified by Sir Humphrey Davy (also, independently by Brand) in 1818. Lithium alters the intraneuronal metabolism of catecholamines by an unknown mechanism. It is used to suppress the manic phase of manic depressive psychosis. Toxicity from Lithium salts leads to ataxia, slurred speech and confusion. Toxic: >1.5 mmol/L - CRITICAL VALUE to be phoned to Nurse or Physician immediately: Indicated in management of acute manic episodes in patients with b (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Liver (see <u>Image-Guided Fine Needle Aspirate Cytology, Non-Image Guided Fine Needle Aspiration Biopsy for Cytology</u>)						
Long Acting Thyroid Stimulator (see <u>Anti-Thyroid Stimulating Hormone Receptor Antibodies, Serum</u>)						
Long Chain Fatty Acids,Plasma/Serum C24/C22 Long Chain Fatty Acid Ratio C26/C22 Long Chain Fatty Acid Ratio C26:0 Long Chain Fatty Acid Concentration Very Long Chain Fatty Acids LCFA VLCFA	Toxicology/Special Chemistry	4 mL K ₂ or K ₃ EDTA Lavender top Vacutainer tube or 5 mL Gold top Vacutainer GENERAL LABORATORY REQUISITION	Once a week	C24/C22 Ratio: 0-1.094 C26/C22 Ratio: 0-0.0350 C26:0 Concentration: 0-1.466 umol/L	2010-01-26	
Lorazepam,Urine- Qualitative test is available only upon request Ativan	Toxicology/Special Chemistry	Random urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	See report		
Low Density Lipoprotein Cholesterol (see <u>Cholesterol-LDL,Plasma</u>)						
Lp(a) (see <u>Lipoprotein (a)</u>)						
Lpa (see <u>Lipoprotein (a)</u>)						
Ludomil (see <u>Maprotiline,Serum/Plasma</u>)						
Luminal (see <u>Phenobarbital,Serum/Plasma</u>)						
Lung (see <u>Image-Guided Fine Needle Aspirate Cytology, Non-Image Guided Fine Needle Aspiration Biopsy for Cytology</u>)						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
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Lupus Anticoagulant (see Anticardiolipin)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Luteinizing Hormone, Plasma/Serum LH	Core	<p>Adult: 4.5 mL Light Green top (Li-Heparin) Vacutainer tube</p> <p>Pediatric: 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 GENERAL LABORATORY REQUISITION</p>	As required	<p><u>Male:</u> Tanner stage 1: ≤ 1.30 IU/L Tanner stage 2: ≤ 2.91 IU/L Tanner stage 3: 0.65 - 4.19 IU/L Tanner stage 4: 1.16 - 6.23 IU/L Tanner stage 5: 1.15 - 7.17 IU/L Adult: 1.70 - 8.60 IU/L</p> <p><u>Female:</u> Tanner stage 1: < 0.31 IU/L Tanner stage 2: ≤ 4.01 IU/L Tanner stage 3: ≤ 7.93 IU/L Tanner stage 4: 0.68 - 19.80 IU/L Tanner stage 5: 0.48 - 21.60 IU/L Follicular phase: 2.40 - 12.60 IU/L Ovulatory phase: 14.00 - (more...)</p>	2009-12-01	<p>Biotin may interfere with this test. Samples should not be taken from patients receiving high biotin doses (i.e. > 5 mg/day) until at least 8 hours after the last biotin administration.</p> <p>In rare cases, interference due to extremely high titers of antibodies to test-specific antibodies, streptavidin, or ruthenium can occur.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lyme Disease Antibody Borrelia burgdorferi	Microbiology (VH)	5 mL Gold or 6 mL Red top Vacutainer tube Serology: PUBLIC HEALTH LABORATORY TEST REQUISITION	Serology is referred out weekdays to the Public Health Laboratory.		2010-09-13	CSF is no longer supported as an appropriate specimen type for Lyme serology or PCR investigations. Serology from blood is the reference standard.
Lymph Node (see <u>Image-Guided Fine Needle Aspirate Cytology, Non-Image Guided Fine Needle Aspiration Biopsy for Cytology</u>)						
Lymphocyte Mitogen (see <u>Lymphocyte Proliferation</u>)						
Lymphocyte Proliferation Lymphocyte Mitogen	Core (all campuses)	2 X 6 mL Dark Green top Vacutainer tubes (Sodium Heparin) SICK KIDS LYMPHOCYTE PROLIFERATION - PHA REQUISITION	Sample must arrive at the testing lab on Thursday by 10:00 with a completed requisition.	See report.	2012-09-10	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lymphocyte Subset Enumeration	Flow Cytometry (VH)	Peripheral blood collected in 4 mL K ₂ or K ₃ EDTA Lavender top Vacutainer tube. Referred-In Samples: FLOW CYTOMETRY REQUISITION	Monday-Friday 0800-1600 Fridays or prior to STAT holidays, routine specimens must be received in the Flow Cytometry Laboratory at Victoria Hospital by 1300.	CD19%CD19 Absolute x 109/LStart AgeEnd AgeRef LowRef HighStart AgeEnd AgeRef LowRef High0 Mins3 Months6320 Mins3 Months0.302.003 Months6 Months11413 Months6 Months0.433.006 Months1.00 YEARS14376 Months1.00 YEARS0.612.60 1.00 YEARS2.00 YEARS16351.00 YEARS2.00 YEARS0.722.60 2.00 YEARS6.00 YEARS14332.00 YEARS6.00 YEARS0.391.40 6.00 (more...)	2011-01-11	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lymphocytes (see <u>Differential Leukocyte Count (Peripheral Blood)</u>)						
Lymphocytosis Investigation (Peripheral Blood)	Flow Cytometry (VH)	Peripheral blood collected in a 4 mL K ₂ or K ₃ EDTA Lavender top Vacutainer tube Pediatric: 0-2 years: 0.5 mL Lavender Microtainer 2-10 years: 3 mL Lavender top tube Referred-In Samples: FLOW CYTOMETRY REQUISITION	Monday-Friday 0800-1600 Fridays or prior to STAT holidays, routine specimens must be received in the Flow Cytometry Laboratory at Victoria Hospital by 1300.	See report	2006-06-01	
Lymphoma (see <u>Chromosome Analysis, Lymph Node/Tumor</u>)						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Lymphoma Prep	Pathology	Tissue biopsy, fresh or in saline Powerchart: eOrder choosing appropriate specimen and "Special handling lymphomaprep, Introp-frozen" See Identification of Clinical Specimens	Refer to Collection Information	See report	2009-10-08	Deliver as directed to Pathology Laboratory. Specimen should reach Pathology within 15-30 minutes. May be done as part of a Frozen section to make a diagnosis of lymphoproliferative disorder or to narrow the differential diagnosis and confirm adequate sampling of the tissue.
Lysosomal Acid Lipase (see <u>Acid Lipase</u>)						