

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C Peptide (see <u>C-Peptide, Plasma/Serum</u> )						
C-ANCA / Anti-PR3 (anti-proteinase antibody) (see <u>ANCA</u> )						
C-Peptide, Plasma/Serum C Peptide	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	Monday - Friday 0800-1600	370-1470 pmol/L	2018-03-06	<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>Increased with excess secretion of endogenous insulin. Can be used to diagnose self-induced insulin hypoglycemia.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C-Reactive Protein CRP	Core	4.5 mL Green (Lithium Heparin) top Vacutainer GENERAL LABORATORY REQUISITION	Daily - as required  Also available on a STAT basis for Emergency Department patients only.	<5 mg/L	2008-11-15	

C-Telo (see C-Telopeptide, Plasma)

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C-Telopeptide, Plasma Beta Crosslaps β-CTX C-Telo	Core	<p><b>Adult:</b> 4 mL Lavender top (EDTA) Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 0.5 mL Lavender top (EDTA) Microtainer 2-10 years: 2 mL Lavender top (EDTA) Vacutainer tube</p> <p>Red, Gold, or Light Green (Li-heparin) top tubes are also acceptable as long as the serum or plasma is analyzed or frozen within a few hours of collection; EDTA plasma is the preferred choice (more...)</p>	Thursday afternoons	<p><b>Male:</b> 30 - 50 years: ≤ 584 ng/L 50 - 70 years: ≤ 704 ng/L &gt; 70 years: ≤ 854 ng/L</p> <p><b>Female:</b> <u>Pre-menopausal:</u> ≤ 573 ng/L <u>Post-Menopausal:</u> 104 - 1008 ng/L</p>	2015-04-15	<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>Increased levels of C-telopeptide occur in osteoporosis, Pagets disease, primary hyperparathyroidism, renal insufficiency, and bone metastases.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C-Urea Breath Test (see <u>H. Pylori Breath Test</u> <b>test only available to Grey Bruce, Owen Sound and St. Mary's, Kitchener</b> )						
C. difficile (see <u>Clostridioides (Clostridium) difficile toxin</u> )						
C1 complement component group test (see <u>C1qrs, Serum</u> )						
C1 Esterase Inhibitor (see <u>C1 Inhibitor Protein, Serum/Plasma</u> )						
C1 Esterase Inhibitor functional assay (see <u>C1 Esterase Inhibitor, Function</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C1 Esterase Inhibitor, Function C1INF C1 Inhibitor function C1 Esterase Inhibitor functional assay	Core	4.5 mL (3.2% Sodium Citrate) Light Blue top Vacutainer tube GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	0.75 - 1.59 U/mL	2010-03-18	<p><b>This test is available exclusively to LHSC/SJH physicians.</b></p> <p>For more information, please contact:</p> <p>Senior Technologist            Immunology Lab            519-685-8500 ext. 35541</p> <p>This test evaluates the functional activity of C1 inhibitor protein utilizing a chromogenic based method.</p> <p>For proper assessment of angioedema please correlate with other clinical features and with the results of quantitative levels of both C1 inhibitor protein and C4. (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C1 Inactivator (see <u>C1 Inhibitor Protein, Serum/Plasma</u> )						
C1 Inhibitor function (see <u>C1 Esterase Inhibitor, Function</u> )						
C1 Inhibitor Protein, Serum/Plasma C1 Esterase Inhibitor C1 Inactivator	Clinical Immunology	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 0.5 mL Red or Gold top Microtainer 2-10 years: 3 mL Red top Vacutainer tube</p> <p>Light Green (Li-Heparin) or Lavender (EDTA) top tubes are also acceptable</p> <p>GENERAL LABORATORY REQUISITION</p>	Monday Friday 0800-1600	0.21 - 0.38 g/L	2010-03-12	<p>This is a quantitative assay; it does not assess the function of C1 inhibitor.</p> <p>C1 inhibitor protein is decreased in hereditary angioneurotic edema, a genetic disease characterized by acute edema of subcutaneous tissue, the GI tract, or the upper respiratory tract.</p>
C1INF (see <u>C1 Esterase Inhibitor, Function</u> )						
C1q (see <u>C1qrs, Serum</u> )						
C1qrs components (see <u>C1qrs, Serum</u> )						
C1qrs levels (see <u>C1qrs, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C1qrs, Serum C1qrs components C1q C1r C1s C1 complement component group test C1qrs levels	Clinical Immunology	<p><b>Both plasma and serum are required</b></p> <p>5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)</p> <p><b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5pk 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION</p>	Referred out monthly. Total complement CH50 is performed as a screen to determine if the component assay is required.	C1q level: 83-125 mg/L C1r level: 61-162 % of STD C1s level: 59-297 % of STD	2010-01-11	<p><b>This test is available exclusively to SJHC/LHSC physicians.</b></p> <p>C1QRS is a group test that includes C1q, C1r, and C1s. Also order TCOM (CH50).</p> <p>Total complement is assayed first to determine if the components evaluation is necessary. If the total complement is within the normal range, the component(s) is resulted as "not indicated".</p> <p>The group test C1qrs includes C1q, C1r, C1s protein quantitation. It does not evaluate function.</p> <p>This test does NOT include C1 est (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C1r (see <u>C1qrs, Serum</u> )						
C1s (see <u>C1qrs, Serum</u> )						
C2,Serum Complement C2 quantitation	Clinical Immunology	6 mL Red top Vacutainer tube or 5 mL Gold top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: Gold 0.5pk. 2-10 yrs: 2 mL Gold top GENERAL LABORATORY REQUISITION	Batch analysis	14-33 mg/L; no pediatric range	2010-01-11	
C24/C22 Long Chain Fatty Acid Ratio (see <u>Long Chain Fatty Acids,Plasma/Serum</u> )						
C26/C22 Long Chain Fatty Acid Ratio (see <u>Long Chain Fatty Acids,Plasma/Serum</u> )						
C26:0 Long Chain Fatty Acid Concentration (see <u>Long Chain Fatty Acids,Plasma/Serum</u> )						
C282Y (see <u>Hemochromatosis HFE gene</u> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C3 Nephritic Factor C3NF	Clinical Immunology	6 mL Red top Vacutainer tube. Gel barrier tubes are not acceptable.  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. 2-10 yrs: 2 mL Red top GENERAL LABORATORY REQUISITION	Referred out monthly	Normal Ratio 0.00 to 0.26 Equivocal Ratio 0.27 to 0.33 Positive Ratio greater than or equal to 0.34	2010-01-11	<b>This test is available exclusively to SJHC/LHSC physicians.</b>  C3 Nephritic Factor is an autoantibody that binds to the alternative pathway C3 convertase and prolongs its activity in vivo. Allow the filled red top tube to clot at 22-37oC for 30-60 minutes. Centrifuge at room temperature. Aliquot into 2 storage tubes and freeze as soon as possible. Store at -20oC (preferably -70oC).
C3c (see <u>Complement C3, Plasma</u> )						
C3NF (see <u>C3 Nephritic Factor</u> )						
C4 (see <u>Complement C4, Plasma</u> )						
C5 complement component level (see <u>C5, Serum</u> )						
C5 Level (see <u>C5, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C5, Serum C5 complement component level C5 Level C5L	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5 pk. 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION	Referred out monthly. Total complement CH50 is performed as a screen to determine the component assay is required.	55-113 mg/L	2010-01-11	<p><b>This test is available exclusively to SJHC/LHSC physicians.</b></p> <p>Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."</p> <p>Also included in group test CCOMPG (includes, C1qrs, C5, C6, C7, C8, C9).</p> <p>Total complement (TCOM, CH50) is a screen for cla (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C5L (see <u>C5, Serum</u> )						
C6 complement component level (see <u>C6, Serum</u> )						
C6 Level (see <u>C6, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C6, Serum C6 complement component level C6 Level C6L	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5 pk. 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION	Referred out monthly. Total complement CH50 is performed as a screen to determine if the component assay is required.	28-69 mg/L	2010-01-11	<b>This test is available exclusively to SJHC/LHSC physicians.</b>  Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."  Also included in group test CCOMPG (includes, C1qrs, C5, C6, C7, C8, C9).  Total complement (TCOM, CH50) is a screen for classical pathway function. (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C6L (see <u>C6, Serum</u> )						
C7 complement component level (see <u>C7, Serum</u> )						
C7 Level (see <u>C7, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C7, Serum C7 complement component level C7 Level C7L	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5 pk. 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION	Referred out monthly. Total complement CH50 is performed as a screen to determine the component assay is required.	35.3-96.5 mg/L	2010-01-11	<b>This test is available exclusively to SJHC/LHSC physicians.</b>  Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."  Also included in group test CCOMP (includes, C1qrs, C5, C6, C7, C8, C9).  Total complement (TCOM, CH50) is a screen for classical pathway function. (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C7L (see <u>C7, Serum</u> )						
C8 complement component level (see <u>C8, Serum</u> )						
C8 Level (see <u>C8, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C8, Serum C8 complement component level C8 Level C8L	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5 pk. 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION	Referred out monthly. Total complement CH50 is performed as a screen to determine the component assay is required.	49-106 mg/L	2010-01-11	<p><b>This test is available exclusively to SJHC/LHSC physicians.</b></p> <p>Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."</p> <p>Also included in group test CCOMPG (includes, C1qrs, C5, C6, C7, C8, C9).</p> <p>Total complement (TCOM, CH50) is a screen for cla (more...)</p>



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C8L (see <u>C8, Serum</u> )						
C9 complement component level (see <u>C9, Serum</u> )						
C9 Level (see <u>C9, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C9, Serum C9 complement component level C9 Level C9L	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube and a 5 mL Lavender top (EDTA plasma)  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. and Purple 0.5 pk. 2-10 yrs: 2 mL Red and Purple top GENERAL LABORATORY REQUISITION	Referred out monthly. Total complement CH50 is performed as a screen to determine the component assay is required.	33-95 mg/L	2010-01-11	<p><b>This test is available exclusively to SJHC/LHSC physicians.</b></p> <p>Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."</p> <p>Also included in group test CCOMPG (includes, C1qrs, C5, C6, C7, C8, C9).</p> <p>Total complement (TCOM, CH50) is a screen for cla (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
C9L (see <u>C9, Serum</u> )						
C14 Breath test (see <u>H. Pylori Breath Test</u> <b>test only available to Grey Bruce, Owen Sound and St. Mary's, Kitchener</b> )						
CA 153 (see <u>CA15-3, Serum</u> )						
CA125, Fluid	Core	Fluid GENERAL LABORATORY REQUISITION	As required	No reference range available for fluid	2017-11-07	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CA125, Plasma/Serum	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	As required	≤ 35 U/mL	2018-03-06	<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>Elevations in serum CA125 occur in patients with ovarian carcinoma or adenocarcinoma of the endometrium or fallopian tubes. A rising value may be associated with progression of the disease. CA125 may also increase in pregnancy, breast carcinoma, liver cell carcinoma, bronchial carcinoma, benign ovarian tumours, peritoneal carcinoma, and liver cirrhosis. Mild increases also in renal failure. (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CA15-3 (see <u>CA15-3, Serum</u> )						
CA15-3, Serum CA 153 CA15-3 CA153	Endocrinology	<b>Adult:</b> 5 mL Gold top Vacutainer tube  Light Green (Li- Heparin) or Lavender (EDTA) top tubes are <b>NOT</b> acceptable GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	≤30 kU/L	2020-07-20	
CA153 (see <u>CA15-3, Serum</u> )						
CA19-9, Fluid	Core	Fluid GENERAL LABORATORY REQUISITION	As required	No reference range available for fluid	2009-02-12	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CA19-9, Plasma/Serum	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	As required	≤ 34 U/mL	2009-12-01	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.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CADASIL Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy .	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		For more information click on: MOLECULAR DIAGNOSTIC LABORATORY N/A Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy (CADASIL)(PMID:9388 399) is a cause of stroke and vascular dementia. It is a condition of mid- adulthood that can result from mutations in the Notch 3 gene on chromosome 19. These mutations can be identified by direct sequence analysis of the Notch3 coding sequence (PMID:16009764). The CADASIL screen offered in this laboratory involves analysis of the (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cadmium, 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): Non Smokers 00.0-56.1 nmol/L  Smokers 0.0-87.2 nmol/L  Conventional Units: Non Smokers 0.00-6.30 µg/L  Smokers 0.00-9.80 µg/L  Blood Cadmium reflects average intake over the previous few months.		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
Cadmium,Urine	Trace Elements	24 hour urine collected in an <b>unused</b> 24 hour urine container or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u>  Random Urine: 0-13.4 nmol/L Ageµmol/mol creatinineFemale Male0-110-1.590-1.5212-190-0.970-0.9420-290-1.090-0.8330-390-1.320-0.9740-490-1.570-1.0350-590-1.850-1.1860-690-1.830-1.2470-790-1.910-1.34≥800-2.340-1.52  24 Hour Urine: 0-17.8 nmol/d  <u>Conventional Units:</u>  Random Urine: 0-1.5 µg/L Ageµg/g (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
Cadmium, Whole blood	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): Non Smokers 0-16 years: 0.0-6.3 nmol/L ≥17 years: 0.0-32.0 nmol/L  Smokers 0.0-48.1 nmol/L  Conventional Units: Non Smokers 0-16 years: 0.00-0.71 µg/L ≥17 years: 0.00-3.60 µg/L  Smokers 0.0-5.4 µg/L  Blood Cadmium reflects average intake over the previous few months.		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
Caffeine, Serum	Toxicology/Special Chemistry	6 mL Red top Vacutainer tube or 4.5 mL Green (Lithium Heparin) top Vacutainer tube GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	25-80 µmol/L		
Calcidiol (see <u>25-Hydroxy Vitamin D, Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calcitonin, Fine Needle Aspirate Thyrocalcitonin	Endocrinology	Two samples: The first is uncontaminated Plasma-Lyte and serves as a blank. The second is 1 mL of Plasma-Lyte that has been used to rinse the biopsy needle as described below. <b>GENERAL LABORATORY REQUISITION</b>	Monday Friday 0800-1600	There is no reference interval available for this specimen type. Interpretation should be made based on comparison with the Plasma-Lyte control and cytology results.	2017-09-18	<p>The limit of quantitation of the assay is 3 ng/L. If a blank result of &gt; 3 ng/L were to be obtained, a technical investigation would be performed prior to reporting of result.</p> <p>This test is only available at the request of Dr. Stan Van Uum or Dr. Deric Morrison. Any other physicians ordering this test will require biochemist approval from Dr. Angela Rutledge at extension 77626.</p> <p>Once the samples are received by the Core Laboratory, they will be aliquoted and centrifuged and the supernatants will be frozen as soon as possible.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calcitonin, Serum Thyrocalcitonin	Endocrinology	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 2 x 0.5 mL Red or Gold top Microtainers 2-10 years: 3 mL Red top Vacutainer tube</p> <p>Light Green (Li- Heparin) or Lavender (EDTA) top tubes are <b>NOT</b> acceptable GENERAL LABORATORY REQUISITION</p>	Monday Friday 0800-1600	Males: ≤ 12 ng/L Females: ≤ 5 ng/L	2017-09-18	
Calcitriol (see <u>1,25-Dihydroxy Vitamin D, Serum/Plasma</u> )						
Calcium, 24-Hour Urine	Core	24 Hour urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	2.5-7.5 mmol/d		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calcium, 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): 0.33-0.64 mmol/L  Conventional Units: 13.2-25.7 mg/L	2010-01-14	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
Calcium, Urine: Random and 24 hour collection (tested by Trace Elements Lab)	Trace Elements	24-Hour Urine Sample or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u>  Random Urine: 1.7-5.0 mmol/L Agemmol/mol creatinine Female Male 0-11189-594189-56712-19121-362117-35120-29137-409104-31230-39165-494122-36440-49196-587128-38450-59231-693147-44260-69228-684154-46270-79238-713167-499≥80292-875189-567  24 Hour Urine: 2.5-7.5 mmol/d  <u>Conventional Units:</u>  Random Urine: 67-200 mg/L (more...)	2010-01-14	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
Calcium, Whole Blood (tested in Trace Elements)	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): 1.43-1.95 mmol/L  Conventional Units: 57.5-78.0 mg/L	2014-11-17	Reference Ranges are based on Non-Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:
Calcium,Urine	Core	Random Urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h		2008-11-16	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calcium-Ionized, Whole blood Ionized Calcium	Core	4.5 mL Green (Lithium Heparin) top Vacutainer tube or Electrolyte- balanced heparin in blood gas syringes Dark Green (Sodium Heparin) top Vacutainer tube is also acceptable. GENERAL LABORATORY REQUISITION	As required	1.09-1.30 mmol/L		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calcium-Total,Plasma	Core	4.5 mL Light Green top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: 0.5 mL Green pk. 2-10 yrs 2 mL Green top GENERAL LABORATORY REQUISITION	As required	Children:  0-10 days: 1.89-2.59 mmol/L 11 days-2 years: 2.24-2.74 mmol/L  2 years-Adult:  2.15-2.55 mmol/L	2008-11-15	If Gadolinium-containing contrast media for MRI has been administered wait 48 hours before blood collection. <b>Calcium:</b> <1.5 or >3.3 mmol/L (Report Albumin, if available) About 45% of calcium is albumin bound. Depressed albumin levels are the most common cause of low total calcium values. Suggested approximate correction factor: add 0.25 mmol/L to calcium value for each 10 g/L that albumin falls below 40 g/L.
Calculi, Renal Stones	Toxicology/Special Chemistry	Calculi or Fragments GENERAL LABORATORY REQUISITION.	Monday - Friday 0800-1600	See report		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Calprotectin, Stool Fecal Calprotectin	Core	10 mL - 50 mL stool - collected in screw capped clean container GENERAL LABORATORY REQUISITION	Referred out Monday - Thursday	<b>Adult:</b> 18 years and over: Normal <50 mg/kg  <b>Pediatric:</b> 1 month - <6 months: Normal <538 mg/kg 6 months - <3 years: Normal <214 mg/kg 3 years - <4 years: Normal <75 mg/kg 4 years - 17 years: Normal <50 mg/kg	2016-06-27	
Candida (see <u>Fungus Culture-Systemic or Subcutaneous</u> )						
Cannabinoids (see <u>Cannabinoids Screen,Urine</u> )						
Cannabinoids Screen,Urine Cannabinoids	Core UH & VH	Random Urine GENERAL LABORATORY REQUISITION	As required	Negative	2008-11-15	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Carbamazepine, Serum/Plasma-Total Anticonvulsant Tegretol	Core	4.5 mL Green (Lithium Heparin) top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: Green 0.6pk. 2-10 yrs: 2 mL Green top GENERAL LABORATORY REQUISITION	As required  Other times by prior arrangement.	17 - 51 µmol/L	2009-09-14	CRITICAL VALUE to be phoned to Nurse or Physician immediately  <b>Toxic:</b> >64 µmol/L
Carbapenemase Producing Enterobacteriaceae Screen CPE Screen	Microbiology	Rectal Swab Feces MICROBIOLOGY REQUISITION	Daily Specimens received after 2 pm will not be processed until the next day		2019-02-20	
Carbon Monoxide (see <u>Co oximetry</u> )						
Carboxyhemoglobin (see <u>Co oximetry</u> )						
Carcinoembryonic Antigen (see <u>CEA, Fluid, CEA, Plasma/Serum</u> )						
Carnitine (Free) - Quantitative, Urine	Biochemical Genetics	Random Urine GENERAL LABORATORY REQUISITION	As required	0-500 umol/g creatinine	2010-11-26	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Carnitine (Free) and Acyl Carnitine - Quantitative, Plasma	Biochemical Genetics	6 mL Green (Sodium or Lithium Heparinized) top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: 2 x 0.5 mL Green top 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	As required	Acylcarnitine: <1 month: 5-15 µmol/L >1 month: 5-20 µmol/L  Free Carnitine: <1 month: 10-30 µmol/L >1 month: 20-53 µmol/L	2010-11-26	
Carotene, Serum Beta Carotene	Core (all campuses)	6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	0.19-1.58 µmol/L		
Cat Scratch Disease (see <a href="#">Bartonella Serology</a> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Catecholamines, Plasma (Norepinephrine, Epinephrine) Epinephrine Norepinephrine Adrenaline Noradrenaline	Core	4 mL Lavender top Vacutainer tube GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	<b>Norepinephrine:</b> Normotensive Adult, Supine: 0.8 - 3.4 nmol/L  <b>Epinephrine:</b> Normotensive Adult, Supine: < or = 0.8 nmol/L	2009-11-25	Contact: Endocrinology Laboratory x 77676  Either steadily or paroxysmally elevated in pheochromocytoma. Antihypertensive medication should be discontinued at least 24 hrs before collection. Vasodilating drugs increase plasma catecholamine levels and some beta blockers cause analytical interference. When feasible, these agents should be withdrawn for 48 hours prior to sampling. This test is highly sensitive for diagnosis of pheochromocytoma during periods of hypertension. Circulating Norepinephrine and Dopamine are (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Catecholamines, Urine Epinephrine Norepinephrine Dopamine Adrenalin Noradrenalin	Core	24-hour urine GENERAL LABORATORY REQUISITION	Referred out Monday - Friday	<p><b>Epinephrine (nmol/day):</b>            &lt; 1 year: 0-14            1-2 years: 0-19            2-4 years: 0-33            4-10 years: 1-55            10-15 years: 3-109            ≥ 15 years: ≤ 99</p> <p><b>Norepinephrine (nmol/day):</b>            &lt; 1 year: 0-59            1-2 years: 6-100            2-4 years: 24-171            4-7 years: 47-266            7-10 years: 77-384            10-15 years: 89-473            ≥ 15 years: ≤ 499</p> <p><b>Dopamine (nmol/day):</b>            &lt; 1 year: 0-555            1-2 years: 69-914 (more...)</p>	2017-07-04	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Catheter Tip Culture (see <u>Vascular Tip Culture</u> )						
CBC (see <u>Complete Blood Count</u> )						
CCOMPG (see <u>Complement Components</u> )						
CD34-Stem cells/Progenitor cells	Flow Cytometry (VH)	Mobilized peripheral blood, apheresis product from stem cell mobilized patient GENERAL LABORATORY 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.	N/A	2006-06-01	
CDIFT (see <u>Clostridioides (Clostridium) difficile toxin</u> )						
CEA, Fluid Carcinoembryonic Antigen	Core	Fluid GENERAL LABORATORY REQUISITION	As required	No reference range available for fluid	2018-03-06	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CEA, Plasma/Serum Carcinoembryonic Antigen	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	As required	<p>20 - 40 years: non-smokers (past/never smokers): ≤ 3.8 g/L smokers (current): ≤ 5.5 g/L all subjects: ≤ 4.7 g/L</p> <p>40 - 69 years: non-smokers (past/never smokers): ≤ 5.0 g/L smokers (current): ≤ 6.5 g/L all subjects: ≤ 5.2 g/L</p>	2009-12-01	<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>Useful in monitoring patients with colorectal, bronchogenic, and breast carcinoma. Not recommended for cancer screening in the general population.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cell Count and Differential, Fluid (other than CSF) Body Fluid Analysis (other than CSF)	Core	Eligible fluids types include: synovial, pericardial, pleural, peritoneal tap, peritoneal dialysate, peritoneal lavage <b>GENERAL LABORATORY REQUISITION</b>	As required	Total Nucleated Cell Count: Red Cell Count: Appearance:  <b>TNC X 109/L</b> <b>RBC X 1012/L</b> <b>Appearance</b>  <b>Synovial</b> Normal: ≤ 0.2 NA Normal: Group I: ≤ 3.0 yellow, Group II: 3.0-75 clear or Group IV: 0.5-200 slightly Group V: 0.05-10 cloudy  <b>Pleural</b> Normal: < 1.0 NA Normal: (more...)	2006-12-27	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cell Count and Differential,CSF CSF Analysis	Core	Cerebrospinal Fluid GENERAL LABORATORY REQUISITION	As required	Cell Counts:  <b>TNC x 106/L</b> <b>RBC x 106/L</b> <b>&lt; 1 year</b> 0-30 few <b>1-5 years</b> 0-20 few <b>6-16 years</b> 0-10 few <b>Adult</b> 0-5 few  Differential:  <b>Neonate(%)</b> <b>Adult(%)</b> <b>Lymphocytes</b> 2-38 63-99 <b>Monocytes</b> 50-94 3-37 <b>Neutrophils</b> 0-8 0-2	2006-12-27	
Cell Storage (see <u>Cells for Dispatch</u> )						
Cellcept (see <u>Mycophenolic Acid</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
<p>Cells for Dispatch Cell Storage Cells for DNA Isolation/Banking Cells for Metabolic Studies</p>	<p>Cytogenetics (VH)</p>	<p><u>Amniotic Fluid:</u> 15 mL-20 mL of amniotic fluid in two sterile containers (see Comments).</p> <p><u>CVS:</u> At least 20-25 mg chorionic villi collected in a sterile container, containing Hank's balanced salt solution (HBSS) (see Comments).</p> <p><u>Skin and POCs:</u> Skin (0.5-1cm<sup>2</sup>), amnion (0.1-5cm<sup>2</sup>), cord (1cm<sup>3</sup>), or chorionic villi. Ship in a sterile container, containing Hank's (more...)</p>	<p>As required</p>	<p>See final report</p>	<p>2011-05-11</p>	<p>Contact the Cytogenetics Lab for aliquots of Hanks balanced salt solution for skin and POC samples.</p> <p>The Cytogenetics Lab is staffed from 0700-1700 (Monday-Friday), Ext. 78974 (office), or 75714 (lab).</p> <p>For additional information please refer to the Molecular Diagnostics website See final report N/A As products of conception are prone to microbial contamination, collect sample as aseptically as possible and send to the laboratory within 24 hours. Turnaround times are dependent on the success of cul (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cells for DNA Isolation/Banking (see <u>Cells for Dispatch</u> )						
Cells for Metabolic Studies (see <u>Cells for Dispatch</u> )						
Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy. (see <u>CADASIL</u> )						
Ceruloplasmin, Plasma	Core	<p><b>Adult:</b> 4.5 mL Green (Lithium Heparin) top Vacutainer</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>GENERAL LABORATORY REQUISITION</p>	Daily	0.16-0.45 g/L Female 0.15-0.30 g/L Male	2010-01-11	<p>Turbidimetric assays not suitable for measurement of highly lipemic or hemolytic samples or samples containing high levels of circulating immune complexes.</p> <p>Approximately 95% of patients with Wilsons Disease have decreased levels. Low levels may also be found in nephrotic syndrome, liver disease and malabsorption. Increased in acute phase reaction, pregnancy and with oral contraceptives</p>
CESD (Cholesterol Ester Storage Disease) (see <u>Acid Lipase</u> )						
CF (see <u>Cystic Fibrosis</u> )						
CF8 (see <u>Chromogenic factor VIII assay</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CH50 (see <u>Complement Total, Serum</u> )						
Charcot Marie Tooth Disease CMT Charcot Marie Tooth Neuropathy	Molecular Diagnostics	Whole blood-2 x 4 mL Lavender EDTA top Vacutainer tube MOLECULAR DIAGNOSTIC REQUISITION	Monday-Friday 0800-1600 h	See report	2010-06-16	For more information click on:
For more information click on:						
For more information click on:						
		PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred weekdays to Public Health Laboratory		2006-07-01	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chlamydia Nucleic Acid Amplification Test	Microbiology (VH)	-Cervix or Urethra Swab  -Urine PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred weekdays to Public Health Laboratory		2010-09-13	<p>Faulty collection and delays in transport of specimen are the primary causes of test failure.</p> <p>Paediatric and medical-legal assault cases and test of cure situations must be investigated by culture technique.</p> <p>However, nucleic acid amplification tests (NAATs) may be acceptable if positive results are confirmed by a second set of primers. If available, both tests (culture and NAAT) should be taken. Molecular diagnostic tests, especially NAATs are more sensitive than culture. <b>Genprobe Aptima®</b> Assay confirmatory testing is available for both Chlamydia tra (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chloride (see <u>Electrolytes,Plasma</u> )						
Chloride (fluid) (see <u>Electrolytes,Fluid</u> )						
Chloride (urine) (see <u>Electrolytes,Urine</u> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chloride, 24-Hour Urine	Core	24 Hour Urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	170-250 mmol/d		<p>High urine values of other halide ions (e.g. bromide, fluoride and iodide) may lead to falsely high readings on the chloride ion-selective electrode.</p> <p>Useful in diagnosing disorders of acid-base and water balance.</p> <p>Monitoring compliance with a low salt diet. Urine chloride excretion approximates the dietary intake.</p> <p>An increase in urine chloride may result from water deficient dehydration, diabetic acidosis, Addison's disease and salt-losing renal disease.</p> <p>Decreased urine levels are seen in congestive heart failure, severe diaphoresis a (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chloride, Sweat Sweat Chloride	Endocrinology	See Collection Information.		<30 mmol/L - (negative) Cystic Fibrosis is unlikely 30-59 mmol/L - (indeterminate) Cystic Fibrosis is possible ≥60 mmol/L - (positive) Diagnostic of Cystic Fibrosis	2008-11-15	
Chloride,Fluid	Core	5 mL Fluid GENERAL LABORATORY REQUISITION	As required	See Report	2010-05-17	
Chloride,Urine	Core	Random Urine GENERAL LABORATORY REQUISITION	As required	100-200 mmol/L		
Cholesterol, Triglyceride, HDL, LDL (see <a href="#">Lipid Profile</a> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cholesterol-HDL,Plasma High Density Lipoprotein Cholesterol	Core UH & VH	4.5 mL Green (Lithium Heparin) top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: 0.5 mL Green pk. 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	* See interpretation of lipid profile.	2008-11-15	
Cholesterol-LDL (see <u>Cholesterol-LDL,Plasma</u> )						
Cholesterol-LDL,Plasma Low Density Lipoprotein Cholesterol Cholesterol-LDL LDL	Core UH & VH	4.5 mL Green (Lithium Heparin) top Vacutainer  <b>Pediatric:</b> 0-2 years: 0.5 mL Green Microtainer 2-10 years: 3 mL Green top tube GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	* Target levels are dependent on 10 year risk of developing coronary artery disease. See interpretation of lipid profile.	2008-11-15	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cholesterol- Total,Plasma	Core	4.5 mL Green (Lithium Heparin) top Vacutainer  <b>Pediatric:</b> 0-2 years: 0.5 mL Green pk. 2-10 years: 3 mL Green top GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	See Interpretive comments	2008-11-15	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cholinesterase Phenotype (includes Cholinesterase, Total Activity) CHOLINP Pseudo-cholinesterase Dibucaine Number	Core	6 mL Red top Vacutainer tube or 5 mL Gold top Vacutainer tube GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	Total: 620-1370 U/L	2010-01-11	<p>To investigate prolonged apnaea following suxamethonium administration during surgery.</p> <p>To screen patients at risk of suxamethonium sensitivity (eg. first degree relatives of a known atypical phenotype).</p> <p>To investigate acute or chronic occupational exposure to organophosphates.</p> <p>Interpretation is provided with the laboratory report Plasma not accepted for analysis. If patient had surgery, collect specimen at least 24 h post-surgery.</p>
CHOLINP (see <u>Cholinesterase Phenotype (includes Cholinesterase, Total Activity)</u> )						
Chondrodysplasia Punctata (X-Linked Recessive) (see <u>Aryl Sulfatase E, Fibroblasts</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chorionic Gonadotropin (Quantitative), Plasma/Serum hCG Beta hCG	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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 GENERAL LABORATORY REQUISITION</p>	As required	<p>Adult male: &lt; 2 IU/L</p> <p>Non-pregnant pre-menopausal female: &lt; 5 IU/L</p> <p>Post-menopausal female: ≤ 7 IU/L</p>	2009-06-04	<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>Assay detects intact hCG, nicked forms of hCG, the beta-core fragment, and the free beta-subunit of hCG.</p> <p>May be used for the early detection and monitoring of pregnancy or as a tumour marker for ovarian, placental, testicular, or other tumours.</p>
Chorionic Gonadotropin, Fluid hCG Beta hCG	Core	Fluid GENERAL LABORATORY REQUISITION	As required	No reference range available for fluid	2018-07-10	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chorionic Villi Sampling (CVS) Chromosome Analysis QF-PCR Prenatal Microarray	Cytogenetics (VH)	<p>~10-20 mg chorionic villi in a sterile container with RPMI media for QF-PCR, Microarray (if required) and back-up culture (additional sample required for external testing)</p> <p>3ml EDTA Maternal Blood Sample CYTOGENETICS REQUISITION . (must include patient's name, address, Ontario Health Insurance Number, PIN (if applicable), originating location, Dr's full na (more...))</p>	As required	See final report		<p>Contact the Cytogenetics Lab for aliquots of RPMI medium.</p> <p>The Cytogenetics Lab is staffed from 0700-1700 (Monday-Friday), Ext. 78974 (office), or 75714 (lab).</p> <p>For additional information please refer to the Cytogenetics Webpage. See final report Prenatal diagnostic test performed at ~9-12 weeks gestation Must prearrange with Cytogenetics Lab.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromium, 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): 0.8-12.3 nmol/L  Conventional Units: 0.04-0.64 µg/L	2010-01-14	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
Chromium,Plasma	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): 2.5-6.0 nmol/L  Conventional Units: 0.13-0.31 µg/L  Concentration of Chromium is much higher in erythrocytes than in plasma or serum. The results of these elements in plasma or serum may be falsely elevated if not separated within 30 minutes and/or hemolysis is present.		Reference Ranges are based on Non-Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromium,Serum	Trace Elements	Reference number 368380 - HMMS# 260 - 6 mL Non Additive Royal Blue Vacutainer tube TRACE ELEMENTS REQUISITION	Batched analysis	SI Units (Reported on Patient Chart): 1.9-3.8 nmol/L  Conventional Units: 0.10-0.20 µg/L  Concentration of Chromium is much higher in erythrocytes than in plasma or serum. The results of these elements in plasma or serum may be falsely elevated if not separated within 30 minutes and/or hemolysis is present.		Reference Ranges are based on Non-Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromium,Urine	Trace Elements	24 hour urine collected in <b>new</b> 24 hour urine container or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u>  Random Urine: 1.7-10.0 nmol/L Ageµmol/mol creatinineFemale Male0-110.20-1.190.20-1.1412-190.13-0.720.12-0.7020-290.14-0.820.11-0.6230-390.17-0.990.13-0.7340-490.20-1.180.13-0.7750-590.24-1.390.15-0.8860-690.24-1.370.16-0.9370-790.25-1.430.17-1.00≥800.30-1.750.20-1.14  24 Hour Urine: 3.8-15.4 nmol/d <u>Conventional Units:</u>  Random Urine: 0.09-0.52 µg/L Ageµg/g (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
Chromium, Whole Blood	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): 2.3-7.7 nmol/L  Conventional Units: 0.12-0.40 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
Chromogenic factor VIII assay CF8	Hemostasis and Thrombosis Laboratory (Victoria Hospital)	<p>2 x 2.7 mL Blue (3.2% Sodium Citrate) top Vacutainer tubes</p> <p><b>Pediatric:</b> 0-2 years: 1.8 mL Sodium Citrate Coagulation tube: <b>Contact HAT lab ext. 52526 for number of tubes required prior to sampling</b> GENERAL LABORATORY REQUISITION</p>	Routine/Stat as required	<p>0 Min - 5 Days: 0.50-1.78 U/mL</p> <p>5 Days - 1 Month: 0.50-1.54 U/mL</p> <p>1 Month - 3 Months: 0.50-1.57 U/mL</p> <p>3 Months - 6 Months: 0.50-1.25 U/mL</p> <p>6 Months - Adult: 0.50-2.00 U/mL</p>	2013-02-01	<p>Please direct any questions or concerns to: Hematology Scientist 519-685-8500 x 55402 Pager 17716</p> <p>All test requests, regardless of whether the patient is an adult or pediatric, <b>must be authorized by a Hematologist. Contact by Paging Adult or Pediatric Hematologist on call through the switchboard.</b></p> <p><u>It is the responsibility of the Hematologist or Pediatrician to communicate their decision to the HATLAB.</u></p> <p>Blue (Sodium Citrate) top tubes sho (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromogranin A, Plasma	Endocrinology	<p><b>Adult:</b> 4 mL Lavender top (EDTA) Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 0.5 mL Lavender top (EDTA) Microtainer 2-10 years: 2 mL Lavender top (EDTA) Vacutainer tube</p> <p>Red, Gold, or Light Green (Li-heparin) top tubes are <b>NOT</b> acceptable. GENERAL LABORATORY REQUISITION</p>	Monday - Friday 0800-1600	≤ 76 ng/mL	2018-08-20	Chromogranin A levels may be elevated in patients treated with proton pump inhibitors. Patients should refrain from taking proton pump inhibitors for at least one week prior to sample collection.

Chromosome Analysis (see Amniotic Fluid, Chorionic Villi Sampling (CVS), Products of Conception, Skin / Fetal Tissue)

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromosome Analysis, Blood Chromosomes Karyotype Banding G-Banding Prophase Banding High Resolution Banding	Cytogenetics (VH)	<p>3-6 mL peripheral venous blood in a sterile, sodium heparin Vacutainer. If &lt;3 mL is collected, it must be in a 3 mL Vacutainer to allow for appropriate sample to anticoagulant ratio.</p> <p>Newborn babies: 1-2 mL of blood aseptically collected into blood chromosome media (see comments).</p> <p>Cord Blood: May be collected in either (more...)</p>	As required	See final report		<p>Solution for Specimen Collection: Contact the Cytogenetics Laboratory in advance for sterile aliquots of blood chromosome media for collection of babys blood. This media may be frozen, and thawed at room temperature (15-25C) as needed. Media must be used by the expiry date written on the tube.</p> <p>The Cytogenetics Laboratory is staffed from 0700-1700 (Monday-Friday), Ext. 78974, or 75714 (lab).</p> <p>For additional information please refer to the Molecular Diagnostics Laboratory. See final report See requisition for common clinical indicators. (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromosome Analysis, Bone Marrow/Blood Oncology Studies Chromosomes Karyotype Banding G-Banding	Cytogenetics (VH)	<p>1-2 mL of bone marrow in a 3 mL Sodium Heparin Vacutainer (see Collection Information)            Note: Bone Marrow is the preferred sample for chromosome studies</p> <p>or</p> <p>3-6 mL peripheral venous blood in a sterile, Sodium Heparin Vacutainer. If &lt;3 mL is collected, it must be in a 3 mL Vacutainer to allow for appropriate sample to antico (more...)</p>	As required	See final report		<p>The Cytogenetics Lab is staffed from 0700-1700 (Monday-Friday), Ext. 78974 (office), or 75714 (lab).</p> <p>For additional information please refer to the Molecular Diagnostics Laboratory. See final report Useful in diagnosing various types of leukemias and for other malignancies. Used to monitor bone marrow transplants. Culture success is dependent on receipt of the sample immediately.</p>



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromosome Analysis, Breakage Study, Ataxia Telangiectasia (see <u>Ataxia Telangiectasia, Breakage Study</u> )						
Chromosome Analysis, Breakage Study, Fanconi Anemia (see <u>Fanconi Anemia, Breakage Study</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromosome Analysis, Lymph Node/Tumor Chromosomes Karyotype Banding G-Banding Lymphoma	Cytogenetics (VH)	2-3 mm2 Lymph Node or Tumor Biopsy in RPMI (see Collection Information and Comments) CYTOGENETICS REQUISITION must include patient's name, address, Ontario Health Insurance Number, PIN (if applicable), originating location, Dr's full name and address, test requested, specimen type and pertinent clinical information.	As required	See final report		<p><u>Solution for Specimen Collection:</u></p> <p>Contact the Cytogenetics Laboratory in advance for sterile aliquots of RPMI media for lymphomas/tumors for collection. This media may be frozen, and thawed at room temperature (15-25C) as needed. Media must be used by the expiry date written on the tube.</p> <p>The Cytogenetics Lab is staffed from 0700-1700 (Monday-Friday), Ext. 78974 (office), or 75714 (lab).</p> <p>For additional information please refer to the Molecular Diagnostics Laboratory. See final report</p> <p>Collect sampl (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chromosomes (see <u>Chromosome Analysis, Blood, Chromosome Analysis, Bone Marrow/Blood Oncology Studies, Chromosome Analysis, Lymph Node/Tumor</u> )						
Chronic Granulomatous Screening Investigation Neutrophil Oxidative Burst Index (NOBI)	Flow Cytometry	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 pk. 2-10 years: 3 mL Lavender top Referred-In Samples: FLOW CYTOMETRY REQUISITION	<u>Monday to Thursday only</u> 0800-1300 Do not send samples on Fridays. Prior to STAT holidays, routine specimens must be received in the Flow Cytometry Laboratory at Victoria Hospital by 1300.	Neutrophils demonstrate normal oxidative burst following stimulation by PMA, not suggestive of a diagnosis of CGD	2009-10-23	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chronic Myelogenous Leukemia, by Karyotype/FISH CML BCR/ABL Philadelphia Chromosome	Cytogenetics (VH)	1-2 mL of bone marrow in a 3 mL Sodium Heparin Vacutainer (see Collection Information) or 3-6 mL peripheral venous blood in a sterile, Sodium Heparin Vacutainer. If <3 mL is collected, it must be in a 3 mL Vacutainer to allow for appropriate sample to anticoagulant ratio. <b>Peripheral blood samples require &gt;10% blasts for chromosome study.</b> CYTO (more...)	As required	See final report	2010-01-13	The Cytogenetics Lab is staffed from 0700-1700 (Monday-Friday), Ext. 78974 (office), or 75714 (lab).  For additional information please refer to the Cytogenetics Web Page @ <a href="http://www.lhsc.on.ca/lab/cytogen/">http://www.lhsc.on.ca/lab/cytogen/</a>  See final report CML is diagnosed by detecting the Philadelphia chromosome. This characteristic chromosomal abnormality can be detected by routine cytogenetics, by <u>Fluorescent In Situ Hybridization (FISH)</u> (Cytogenetics Lab) or by PCR (Molecular Diagnostics Lab).  Controversy e (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Chronic Myelogenous Leukemia, by PCR CML BCR/ABL Philadelphia Chromosome	Molecular Diagnostics	Bone marrow or 2 x 4 mL K <sub>2</sub> or K <sub>3</sub> EDTA Lavender top Vacutainer tube  MOLECULAR DIAGNOSTICS REQUISITION	As Required Monday - Friday 0800 - 1630 h	See report	2010-01-13	<p>Retesting of samples received less than 3 months after initial testing need to be approved by the Laboratory Director.</p> <p>For more information click on:            Molecular Diagnostic Laboratory.            N/A            Chronic myelogenous leukemia is invariably associated with a cytogenetic abnormality involving a reciprocal translocation of chromosomes 9 and 22, in which the downstream portion of the abl proto oncogene on chromosome 9 is brought into close proximity to the upstream portion of the bcr gene on chromosome 22. It is possible to detect this translocation (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CIC (see <u>Immune Complexes</u> )						
Circulating immune complexes (see <u>Immune Complexes</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Circulating Tumor Cells CTC	Flow Cytometry	Venous Whole Blood For further information and/or to enquire about ordering CTC tests, please contact:  Dr. Alison Allan Tel: (519) 685-8600 x55134 Email: alison.allan@lhsc.on.ca	Monday-Friday 0800-1600	See Interpretive Comments	2014-09-08	<p>After sample processing ferrofluid aggregation and/or non-ferrofluid aggregation may be seen in the sample tube. According to manufacturers recommendations sample is therefore unsatisfactory for processing. Sample must be redrawn.</p> <p>Our ISO-15189 accredited laboratory offers circulating tumor cell (CTC) analysis using the FDA- and Health Canada- approved CellSearch System (Menarini Silicon Biosystems, Inc).</p> <p>The CellSearch is intended for clinical use in the enumer (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Citrate, 24-Hour Urine	Core	24-hour urine  Collect urine with no preservative - acidified specimens are also acceptable. GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	20-21 years: 0.78-6.20 mmol/day 21-22 years: 0.82-6.20 mmol/day 22-23 years: 0.85-6.20 mmol/day 23-24 years: 0.89-6.20 mmol/day 24-25 years: 0.93-6.20 mmol/day 25-26 years: 0.97-6.20 mmol/day 26-27 years: 1.00-6.20 mmol/day 27-28 years: 1.04-6.20 mmol/day 28-29 years: 1.08-6.20 mmol/day 29-30 years: 1.11-6.20 mmol/day (more...)	2008-11-15	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Citrate, Random Urine	Core	Random urine (24-hour urine is the preferred sample type; see Lab Test Information Guide entry for Citrate, 24-Hour Urine) GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	≥ 0.1036 mmol/mmol creatinine	2017-12-11	
CJD Protein Assay (see <u>Creutzfeldt-Jakob Disease (CJD) Protein Assay</u> )						
CK Total (see <u>Creatine Kinase - CK,Plasma</u> )						
CLN2 Peptidase (see <u>Tripeptidyl Peptidase 1, Dried Blood Spot/Fibroblast</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Clobazam/Desmethyl clobazam, Serum	Toxicology/Special Chemistry	6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	Once a week	<p><b>Clobazam:</b></p> <p>No therapeutic range has been established, however levels of: 0.15-1.00 µmol/L</p> <p><b>Desmethyl Clobazam:</b> 2.8-14.0 µmol/L</p> <p>have been suggested.</p>		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Clomipramine <b>and</b> Desmethylclomipramine, Serum/Plasma Desmethylclomipramine (metabolite) Anafranil	Core	2 x 6 mL Red top Vacutainer or 2 x 4 mL Lavender top EDTA Vacutainer tube GENERAL LABORATORY REQUISITION	Referred out Monday-Thursday	No reference range for Clomipramine <u>OR</u> Desmethylclomipramine alone.  <b>Combined Metabolites</b>  Clomipramine + Desmethylclomipramine Adult Therapeutic Ranges:  580-1500 nmol/L  <b>Toxic:</b> >2000 nmol/L	2005-07-01	Testing is also possible on urine and Gastric lavage samples.  To monitor therapy, draw trough level specimen in TBEP-free tubes prior to morning dose or 10 - 12 h after last drug administration. Separate as soon as possible. Assay includes Desmethylclomipramine.
Clonazepam, Urine Qualitative	Toxicology/Special Chemistry	Urine GENERAL LABORATORY REQUISITION	Monday-Friday 0800-1600	See report	2015-09-10	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Clonazepam, Serum Rivotril	Toxicology/Special Chemistry	2 x 6 mL Red top Vacutainer tube or 2 x 4.5 mL Green (Lithium Heparin) top Vacutainer tube GENERAL LABORATORY REQUISITION	Once a week	20-180 nmol/L	2009-06-10	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Clostridioides (Clostridium) difficile toxin C. difficile CDIFT	Microbiology (VH)	Faeces MICROBIOLOG Y REQUISITION	Batched and performed twice daily.		2008-02-08	<p>Children may carry C. difficile asymptotically. Presence of this toxin may not be diagnostic of infection.</p> <p>Only one sample will be processed per patient within a 7 day period.</p> <p>Specimens previously positive will not be repeated for at least 14 days.</p> <p>Samples are processed by a PCR screening technique (toxin gene). If results are positive, they will be tested by an enzyme immunoassay (toxin protein).</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Clozapine, Serum/Plasma Clozaril	Toxicology/Special Chemistry	4 mL K <sub>2</sub> or K <sub>3</sub> EDTA Lavender top Vacutainer tube  GENERAL LABORATORY REQUISITION	Routine	Minimum effective concentration is 1070 nmol/L	2009-06-04	Alert value is 3100 nmol/L  Norclozapine, metabolite: not active.
Clozaril (see <u>Clozapine, Serum/Plasma</u> )						
CML (see <u>Chronic Myelogenous Leukemia, by Karyotype/FISH, Chronic Myelogenous Leukemia, by PCR</u> )						
CMT (see <u>Charcot Marie Tooth Disease</u> )						
CMV IgM/IgG (see <u>Cytomegalovirus Serology</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CMV PCR Quantitative Cytomegalovirus Cytomegalovirus PCR (Viral Load)	Virology Laboratory	Please refer to Special Processing below for each Group: <b>Group 1:</b> -Blood: 4 mL Lavender top (EDTA) Vacutainer tube -Urine -BAL -CSF - Vitreous/Aqueo us Fluid <b>Group 2:</b> -Fluid: Amniotic, ascitis, pleural samples sent to Public Health Laboratory for testing -Tissue: samples sent to Public Health Laboratory for testing VIROLOGY LABO (more...)	Samples are tested on Tuesday, Thursday and Friday. STAT requests must be approved by a Medical Microbiologist.	See report	2009-11-09	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Co oximetry Methemoglobin METHB Carboxyhemoglobin COHB Carbon Monoxide COOX	Core (all sites)	Heparinized blood gas syringe or 4.5 mL Green (Lithium Heparin) top vacutainer tube. GENERAL LABORATORY REQUISITION	As required	<b>Whole Blood,</b> <b>AdultAge</b> <b>RangeMale</b> <b>Female</b> Hemoglobin, Hbbirth-1 month150- 250150-2501 month-2 years100- 140100-1402 years-10 years110- 160110-16010 years-18 years125- 160120-15018 years-adult135- 170115-160 <b>Oxygenated</b> <b>Hemoglobin;</b> <b>O2Hb(all)95-</b> <b>9895-98</b> <b>CarboxyHemogl</b> <b>obin; COHbNon-</b> smoker, all<1.5<1.5Smok ers all:1-2 packs/day1.5- 5.01.5-5 (more...)	2016-05-04	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
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CO2 (see Electrolytes,Plasma)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Coagulation Factor Assays Factor Assays (II, V, VII, VIII, IX, X, XI, XII) Factor VIII F8 Factor IX F9	Hemostasis and Thrombosis Laboratory (Victoria Hospital)	2 x 2.7 mL Blue (3.2% Sodium Citrate) top Vacutainer tubes  <b>Pediatric:</b> 0-2 years: 1.8 mL Sodium Citrate Coagulation tube: <b>Contact HAT lab ext. 52526 for number of tubes required prior to sampling</b> GENERAL LABORATORY REQUISITION	Routine/Stat as required	<b>Factor X</b>  0 Min - 5 Days: 0.13-0.68 U/mL 5 Days - 1 Month: 0.19-0.79 U/mL 1 Month - 3 Months: 0.31-0.87 U/mL 3 Months - 6 Months: 0.35-1.07 U/mL 6 Months - Adult: 0.50-2.00 U/mL  <b>Factor XI</b>  0 Min - 5 Days: 0.10-0.66 U/mL 5 Days - 1 Month: 0.23-0.87 U/mL 1 Month - 3 Months: 0.27-0.79 U/mL 3 Months - 6 Months: 0.41-0.97 U/mL (more...)	2006-06-01	Please direct any questions or concerns to: Hematology Scientist 519-685-8500 x 55402 Pager 17716  All test requests, regardless of whether the patient is an adult or pediatric, <b>must be authorized by a Hematologist</b> by contacting the adult or pediatric Hematologist on call through switchboard.  <u>It is the responsibility of the Hematologist or Pediatrician to communicate their decision to the HATLAB.</u>  For newly diagnosed hemophilia patient. Factor VIII or IX level less than 0.10 U/mL (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Coagulation Factor Inhibitor Assays (Usually VIII and IX) Factor VIII Inhibitor Factor IX Inhibitor	Hemostasis and Thrombosis Laboratory (Victoria Hospital)	2 x 2.7 mL Blue (3.2% Sodium Citrate) top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 1.8 mL Sodium Citrate Coagulation tube: <b>Contact HAT lab ext. 52526 for number of tubes required prior to sampling</b> GENERAL LABORATORY REQUISITION	As required	No inhibitor present	2006-06-01	Factor assay sample can be used if available.  Please direct any questions or concerns to: Hematology Scientist 519-685-8500 x 55402 Pager 17716  All test requests, regardless of whether the patient is an adult or pediatric, <b>must be authorized by a Hematologist by paging the adult or pediatric Hematologist on call through switchboard.</b>  <u>It is the responsibility of the Hematologist or Pediatrician to communicate their decision to the HATLAB.</u>  (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cobalamin (see <u>Vitamin B12, Plasma/Serum</u> )						
Cobalt, 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): 0.3-4.9 nmol/L  Conventional Units: 0.02-0.29 µg/L		Reference Ranges are based on Non-Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:
Cobalt, Serum	Trace Elements	Reference number 368380 - HMMS# 260 - 6 mL Non Additive Royal Blue Vacutainer tube TRACE ELEMENTS REQUISITION	Batched analysis	SI Units (Reported on Patient Chart): 0.5-6.8 nmol/L  Conventional Units: 0.03-0.40 µg/L	2007-03-30	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
Cobalt, Plasma	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): 2.4-8.3 nmol/L  Conventional Units: 0.14-0.49 µg/L	2010-01-15	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
Cobalt,Urine	Trace Elements	24 hour urine collected in <b>new</b> 24 hour urine container or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u>  Random Urine: 1.2-14.1 nmol/L Ageµmol/mol creatinineFemale Male0-110.13-1.680.13-1.6012-190.09-1.020.08-0.9920-290.10-1.150.07-0.8830-390.12-1.390.09-1.0340-490.14-1.660.09-1.0850-590.16-1.960.11-1.2560-690.16-1.930.11-1.3070-790.17-2.010.12-1.41≥800.21-2.470.13-1.60  24 Hour Urine: 1.7-21.2 nmol/d  <u>Conventional Units:</u>  Random Urine: 0.07-0.83 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
Cobalt, Whole blood	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): 1.9-6.6 nmol/L  Conventional Units: 0.11-0.39 µg/L		Reference Ranges are based on Non- Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:
Cocaine (see <u>Cocaine Screen, Urine</u> )						
Cocaine Screen, Urine Cocaine	Core UH & VH	Urine, Random GENERAL LABORATORY REQUISITION	As required	Negative	2008-11-15	
Coccidioides Culture (see <u>Fungus Culture-Dimorphic</u> )						
Coccidioidomycosis (Coccidioides immitis), Coccidioides Serology	Microbiology (VH)	Blood-5 mL Gold or 6 mL Red top Vacutainer tube PUBLIC HEALTH LABORATORY TEST REQUISITION	Referred weekdays to Public Health Laboratory		2010-09-13	
COHB (see <u>Co oximetry</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cold Agglutinin Screen Test	Blood Transfusion	6 mL Pink (EDTA) top Vacutainer tube BLOOD TRANSFUSION REQUISITION or Electronic order	As required Monday-Friday	See report		
Cold Agglutinin Titre & Thermal Amplitude	Blood Transfusion	6 mL Pink (EDTA) top Vacutainer tube BLOOD TRANSFUSION REQUISITION or Electronic order	As required Monday-Friday	See report		



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Colon Cancer (Proband) Hereditary Colorectal/Gastric Cancer	Molecular Diagnostics	Whole Blood-3 x 4 mL Lavender EDTA top Vacutainer tube MOLECULAR DIAGNOSTIC REQUISITION	As Required Monday - Friday 0800 - 1600 h	See report		Genes Tested (hg19;HGVS nomenclature):APC and5UTR(NM_001127510.2), BMPR1A(NM_004329.2), CDH1(NM_004360.3), CDK4(NM_000075.3), CHEK2(NM_007194.3), CTNNA1(NM_001903.2), EPCAM(NM_002354.2:3' large del only), FLCN(NM_144997.5), GREM1(NM_013372.6), MLH1 and5UTR(NM_000249.3), MSH2(NM_000251.2), MSH3(NM_002439.4), MSH6(NM_000179.2), MUTYH(NM_001128425.1), NTHL1(NM_002528.5), PMS2(NM_000535.5), POLD1(NM_001256849.1), POLE(NM_00 (more...))

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
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Combined Cervical/Endocervical Smear (see Gynaecological Conventional Smear for Cytology)

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Complement C3, Plasma C3c	Core	<p><b>Adult:</b> 4.5 mL Green (Lithium Heparin) top Vacutainer</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>GENERAL LABORATORY REQUISITION</p>	Daily	0.90-1.80 g/L	2009-02-27	<p>C3 is normally run in conjunction with C4. Fresh samples have lower C3c than stored samples as C3 breaks down to C3c. Turbidimetric assays not suitable for measurement of highly lipemic or hemolytic samples or samples containing high levels of circulating immune complexes.</p> <p>This test quantitates the amount of C3c in the serum but does not test C3 function. Decreased levels are associated with complement activation of either/both classical and alternative pathway(s), or genetic deficiency. Major clinical manifestations (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
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Complement C2 quantitation (see C2, Serum)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Complement C4, Plasma C4	Core	<p><b>Adult:</b> 4.5 mL Green (Lithium Heparin) top Vacutainer</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>GENERAL LABORATORY REQUISITION</p>	Daily	0.10-0.40 g/L	2009-02-27	<p>Normally run in conjunction with C3 C4 degrades in storage. Turbidimetric assays not suitable for measurement of highly lipemic or hemolytic samples or samples containing high levels of circulating immune complexes.</p> <p>This test quantitates the amount of C4 in the plasma but does not test C4 function. Decreased levels are associated with complement classical pathway activation, decreased or dysfunctional C1 esterase inhibitor or genetic deficiency. Major clinical manifestations include SLE, glomeruloneph (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Complement Components CCOMPG Complement components group test: C1qrs, C5, C6, C7, C8, C9 (Each component may be ordered separately)	Clinical Immunology	<p><b>Age 10-Adult:</b> 6 mL Red top Vacutainer tube and 5 mL Lavender top (K<sub>3</sub>EDTA) tube Require 2 x 1 mL aliquots each of serum and plasma for send out</p> <p><b>Pediatric:</b> 0-2 yrs: 2 x 0.5 Red micropick and 2 x 0.5 Lavender micropick Require 2 x 0.5 mL aliquots each of serum and plasma for send out</p> <p>2-10 yrs: 2 x 4 mL Red top and 2 x 4 mL Lavender top Require 2 x 1 mL ali (more...)</p>	Referred out monthly. Total complement CH50 is performed as a screen to determine the component assay is required.	<p>C1q 83 to 125 mg/L</p> <p>C1r 61 to 162 % of standard</p> <p>C1s 59 to 297 % of standard</p> <p>C5 55 to 113 mg/L</p> <p>C6 28 to 69 mg/L</p> <p>C7 35.3 to 96.5 mg/L</p> <p>C8 49 to 106 mg/L</p> <p>C9 33 to 95 mg/L</p>	2010-01-11	<p><b>This test is available exclusively to SJHC/LHSC physicians.</b></p> <p>CCOMPG is a group test that includes C1qrs, C5, C6, C7, C8, C9. The components can be ordered individually.</p> <p>Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."</p> <p>Group test tha (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Complement components group test: C1qrs, C5, C6, C7, C8, C9 (see <u>Complement Components</u> )						
Complement Total, Serum CH50 TCOM Total Complement Function Assay	Clinical Immunology	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube</p> <p><b>Pediatric:</b> 0-2 years: 2 x 0.5 mL Red or Gold top Microtainer 2-10 years: 3 mL Red top Vacutainer tube</p> <p>Light Green (Li-Heparin) or Lavender (EDTA) top tubes are <b>NOT</b> acceptable GENERAL LABORATORY REQUISITION</p>	Batch analysis	42 95 U/mL	2010-01-11	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Complete Blood Count CBC Leukocyte Count (LKC) Hemoglobin (Hb) Hematocrit (HCT) Mean Cell Volume (MCV) Platelet Count	Core	<p><b>Adult:</b> 4 mL K<sub>2</sub> EDTA (Lavender) Vacutainer tube</p> <p><b>Pediatric Venous:</b> 2 mL Paeds K2 EDTA (Lavender) Vacutainer</p> <p><b>Pediatric (Capillary):</b> 0.5 mL MAP K<sub>2</sub> EDTA (Lavender) Microtube 0.5 mL K<sub>2</sub> EDTA (Lavender) Microtube GENERAL LABORATORY REQUISITION</p>	As required	Normal Ranges adopted through consensus by the three London teaching hospitals. <b>Leukocyte Count (LKC):</b> >18 years: 4.0-10.0 x 10 <sup>9</sup> /L 11-18 years: 4.0-10.0 x 10 <sup>9</sup> /L 3-10 years: 5.0-12.0 x 10 <sup>9</sup> /L 1 month-2 years: 5.0-15.0 x 10 <sup>9</sup> /L < 1 month: 5.0-34.0 x 10 <sup>9</sup> /L <b>Erythrocyte Count (ERC):</b> Males: >18 years: 4.50-6.50 x 10 <sup>12</sup> /L 11-18 years: 4.20-5.60 x 10 <sup>12</sup> /L 3-10 years: 4.00-5.3 (more...)	2011-01-14	



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Comprehensive Autoimmune Encephalitis Panel, Serum/CSF Panel includes: <u>Autoimmune Encephalitis Antibodies</u> Anti-NMDAR Anti-LGI1 Anti-CASPR2 Anti-AMPA1/R2 Anti-GABAR1/B2 Anti-DPPX  <u>Paraneoplastic Antibodies</u> Anti-Hu (ANNA-1) Anti-Ri (ANNA-2) Anti-Yo (PCA-1) Anti-Amphiphysin Anti-CV2 (CRMP5) Anti-Ma2/Ta (PNMA2) Anti-Tr (DNER) Anti-Zic4 Anti-Recoverin Anti-Titin Anti-SOX1  <u>Other Antibody (more...)</u>	Clinical Immunology	<b>Adult:</b> 5 mL Gold or 6 mL Red top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 0.5 mL Red Microtainer 2-10 years: 2 mL Red top Vacutainer tube  CSF sample: Suggest CSF be submitted with serum for testing. CLINICAL IMMUNOLOGY REQUISITION	Batch analysis	Negative	2019-02-26	This test is available to neurologists at LHSC/SJHC and accepted from referred in locations. A single autoantibody test is not diagnostic and should not be used to determine course of treatment. The test result must be evaluated with consideration of clinical presentation, patient history and other laboratory tests.  <b>Antibodies against Associated Neurological Disorders Frequently Associated Tumors</b> NMDAR Anti-NMDAR encephalitis Ovarian teratoma, testicular teratoma LGI1 Limbic encephalitis Thyroid carcinoma, small cell lung cancer, ki (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Concerta™ (see <u>Methylphenidate, Urine</u> )						
Conjugated (see <u>Bilirubin- Direct</u> )						
Coombs' Test (see <u>Direct Antiglobulin Test</u> )						
COOX (see <u>Co oximetry</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Copeptin (Surrogate Measure of Anti-Diuretic Hormone), Plasma/Serum ADH Antidiuretic hormone Vasopressin Arginine Vasopressin AVP ProAVP	Endocrinology	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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><b>Red or Gold top tubes are acceptable.</b></p> <p>Lavender (EDTA) top tubes are <b>NOT</b> preferred. If EDTA plasma is being sent for testing, the laboratory must be informed. GENE (more...)</p>	Monday - Friday 0800-1600	<p><b>ADULT:</b> <b>Osmolality (mOsm/kg) Copeptin Reference Interval (pmol/L)</b> 270-280 ≤ 11.6281-285≤ 13.7286-2901.5- 15.3291-2952.3- 24.5296-3002.4- 28.2</p> <p>From Timper K et al., J Clin Endocrinol Metab 2015; 100(6):2268-2274: a baseline copeptin ≥21.4 pmol/L identified nephrogenic diabetes insipidus with 100% sensitivity and specificity following a combin (more...)</p>	2019-03-04	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Copper, 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): 0-12 years: 10.3-17.5 µmol/L ≥13 years: 9.7-14.6 µmol/L  Conventional Units: 0-12 years: 654-1114 µg/L ≥13 years: 616-929 µg/L	2010-01-18	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
Copper,Plasma	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): 0-3 months:1.4-7.2 µmol/L 4-6 months:3.9-17.3 µmol/L 7-12 months:7.9-20.5 µmol/L 1-5 years:12.6-23.6 µmol/L 6-9 years:13.2-21.4 µmol/L Male 10-13 years:12.6-19.0 µmol/L Female 10-13 years:12.9-18.9 µmol/L Male ≥14 years:11.2-20.6 µmol/L Female ≥14 years:13.5-36.5 µmol/L  Conventional Units: 0-3 months:89-457 µg/L 4-6 months:248-1099 µg/L 7-12 (more...)	2010-07-05	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
Copper, Tissue	Trace Elements	Fresh or frozen tissue is acceptable. TRACE ELEMENTS REQUISITION	Batched analysis	<b>Liver:</b> 0.16-0.55 $\mu$ mol/g  ** Reference range is tissue dependent.		Reference Ranges are based on Non-Occupationally exposed population.  Gold standard for Wilson's Disease-liver biopsy.  Find Interpretive Comment and Clinical Information here:

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Copper,Urine	Trace Elements	24 hour urine collected in <b>new</b> 24 hour urine container or random urine TRACE ELEMENTS REQUISITION	Batched analysis	<u>SI Units:</u>  Random Urine: 0.04-0.19 µmol/L Ageµmol/mol creatinineFemale Male0-114.1-22.54.1-21.512-192.6-13.72.5-13.320-293.0-15.52.3-11.830-393.6-18.72.6-13.840-494.3-22.22.8-14.550-595.0-26.23.2-16.760-695.0-25.93.4-17.570-795.2-27.03.6-18.9≥806.4-33.14.1-21.5  24 Hour Urine: 0.06-0.28 µmol/d  <u>Conventional Units:</u>  Random Urine: 2.3-12.0 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
Copper, Whole Blood Cu	Trace Elements	BD Royal Blue K2 EDTA Vacutainer, Reference # 368381 TRACE ELEMENTS REQUISITION	Batched Analysis	SI Units (Reported on patient chart): Male: 10.8-16.3 umol/L Female: 11.8- 24.6 umol/L  Conventional Units: Male: 683-1036 ug/L Female: 752- 1565 ug/L	2011-09-13	Reference Ranges are based on Non- Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:
Coproporphyrin I (see <u>Porphyryns, 24-Hour Urine, Porphyryns, Urine, Random</u> )						
Coproporphyrin III (see <u>Porphyryns, 24-Hour Urine, Porphyryns, Urine, Random</u> )						
Cord Blood Testing Umbilical Cord Blood Testing	Blood Transfusion	4 mL Lavender or 6 mL Pink (umbilical cord) top Vacutainer tube BLOOD TRANSFUSION REQUISITION or Electronic order	Daily Urgent if indicated.	See report		
CORE (see <u>Hepatitis B Core Antibody</u> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Coronavirus SARS-CoV-2 2019 Diagnostic (COVID)	Microbiology	Bronchial Alveolar Lavage Nasopharyngeal Swab Nasal/Mid-Turbinate swab Sputum Throat swab Tracheal Aspirate LHSC COVID-19 REQUISITION	Testing is performed 7 days per week at PaLM Microbiology. Specimens received on swab media not validated at LHSC will be forwarded to Public Health. -Lower respiratory specimens will be tested in-house -Other requests may be forwarded to PHL for testing		2020-03-05	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Coronavirus SARS-CoV-2 2019 Screen (COVIDSCR)	Microbiology	Bronchial Alveolar Lavage Nasopharyngeal Swab Nasal/Mid-Turbinate swab Sputum Throat swab Tracheal Aspirate LHSC COVID-19 REQUISITION	Testing is performed 7 days per week at PaLM Microbiology. Specimens received on swab media not validated at LHSC will be forwarded to Public Health. - Lower respiratory specimens will be tested in-house - Other requests may be forwarded to PHL for testing		2020-07-13	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cortisol Level Post-Dexamethasone, Plasma/Serum	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	As required	≤ 50 nmol/L	2018-03-06	<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 test is used to measure cortisol level following a dexamethasone suppression test.</p>
Cortisol, 24-Hour Urine	Core	<p>24-hour urine</p> <p>GENERAL LABORATORY REQUISITION</p>	Referred out Monday-Friday	≤ 274 nmol/day	2017-11-07	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cortisol, Plasma/Serum	Core	<p><b>Adult:</b> 4.5 mL Light Green top (Li-Heparin) 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>	As required	<p>6 10 am: 133 537 nmol/L</p> <p>4 8 pm: 68 327 nmol/L</p>	2018-03-06	<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>Oral contraceptives, pregnancy, or estrogen therapy cause elevated plasma cortisol levels due to an increase in binding proteins.</p> <p>Prednisolone, 6-<math>\alpha</math>-methylprednisolone, or prednisone treatment may cause falsely elevated cortisol results.</p> <p>During metyrapon tests, 11-deoxycortisol levels are elevated. Falsely elevated cortisol values may be determined due to cross reactivit (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cortisol, Saliva Salivary Cortisol	Core	Saliva GENERAL LABORATORY REQUISITION	Tuesday afternoons	6 - 10 am collection: < 24.1 nmol/L 4 - 8 pm collection: < 9.7 nmol/L 11:30 pm - 12:30 am collection: < 11.3 nmol/L	2015-11-02	
Cosyntropin Test (see <u>ACTH Stimulation Test, Plasma/Serum</u> )						
Coxiella burnetti Serology (see <u>Q fever Serology</u> )						
CPE Screen (see <u>Carbapenemase Producing Enterobacteriaceae Screen</u> )						
CPK Total (see <u>Creatine Kinase - CK, Plasma</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Creatine Kinase - CK, Plasma CPK Total CK Total	Core	4.5 mL Green (Lithium Heparin) top Vacutainer  <b>Pediatric:</b> 0-2 yrs: Green top Microtainer (BD 365985) < 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	As required	Children:  0 - 5 days: <712 U/L 6 days - 12 months: <295 U/L 1 year - 17 years: <247 U/L  Adult: Male >18 years: <190 U/L Female >18 years: <170 U/L	2008-11-15	Hemolyzed plasma may elevate results.
Creatinine Clearance	Core	4.5 mL Green top Vacutainer and 24 hour urine collection GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	0 min - 124 years: 1.24-2.24 mL/s  Correction for body surface area: 0 min. - 124 years: 1.17-2.33 mL/s/1.73 m <sup>2</sup>	2010-07-13	

Creatinine Trace Elements (see [Trace Elements Creatinine, Urine](#))

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Creatinine, 24-Hour Urine	Core	24 Hour Urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	Male: 8.6-19.4 mmol/d  Female: 6.3-13.4 mmol/d	2008-11-16	
Creatinine, Urine-Random for Trace Elements (see <u>Trace Elements Creatinine, Urine</u> )						
Creatinine, Fluid	Core	5 mL Fluid GENERAL LABORATORY REQUISITION	As required	See report	2008-11-16	
Creatinine, Plasma	Core	4.5 mL Green top Vacutainer  <b>Pediatric:</b> 0-2 yrs: Green top Microtainer (BD 365985) 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	As required	Age/Range: 0-5 years: <53 µmol/L 5-8 years: 30-70 µmol/L 8-12 years: 30-96 µmol/L Male 12 years-adult: 62-120 µmol/L Female 12 years-adult: 55-100 µmol/L  Note that plasma creatinine increases with age.	2008-11-15	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Creatinine,Urine-Random	Core	Random Urine GENERAL LABORATORY REQUISITION	Monday - Friday 0800 - 1600 h	Random Urine (1st morning):  Male: 3.5-25 mmol/L  Female: 2.6-20 mmol/L	2008-11-16	
Creute (see <a href="#">Trace Elements Creatinine, Urine</a> )						
Creutzfeldt-Jakob Disease (see <a href="#">Creutzfeldt-Jakob Disease (CJD) Protein Assay</a> )						
Creutzfeldt-Jakob Disease (CJD) Protein Assay CJD Protein Assay Creutzfeldt-Jakob Disease	Microbiology (VH)	Cerebrospinal Fluid REQUISITION FOR TESTING	Referred out Monday, Tuesday and Wednesday to the National Microbiology Laboratory in Winnipeg.		2006-07-01	Please notify Microbiology (VH) before submitting sample.
CRP (see <a href="#">C-Reactive Protein</a> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryocrit, Serum	Clinical Immunology	2 x 6 mL Red (no gels or serum separator) top Vacutainer tubes GENERAL LABORATORY REQUISITION Order CRYO	As required	0 2% When there is no Cryoglobulin present, the cryocrit is not performed.	2010-01-11	<p>If the cryo develops as a gel rather than flocculation, the crit may be technically impossible to perform.</p> <p>A preliminary report after 48 hours will be generated in Powerchart followed by a final report within 10 days.</p> <p>The final report will include a calculated cryocrit and a characterization identifying the type of cryoglobulin present.</p> <p><u>NOTE:</u> The cryocrit will be used to monitor positive patients as the characterization will only be processed once.</p> <p>The specimen tubes must remain at 37°C (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryofibrinogen	Clinical Immunology	4 x 2.7 mL Light Blue (Sodium Citrate) Vacutainer tubes <b>and</b> 2 x 6 mL Red top Vacutainer tubes GENERAL LABORATORY REQUISITION	Daily	Negative.	2010-01-11	<p>If the cryoglobulin/cryofibrinogen develops as a gel rather than flocculation, the crit may be technically impossible to perform.</p> <p>Cryofibrinogen refers to cold-precipitable complexes of fibrin, fibrinogen and fibronectin. These may occur:</p> <ul style="list-style-type: none"> <li>(i) when blood drawing is slow allowing thrombin generation ex vivo,</li> <li>(ii) in any condition in which increased levels of fibrin occur</li> <li>(iii) in certain dysfibrinogenemias.</li> </ul> <p>Cryoglobulins may be found in serum and plasma but cryofibrinogen is only found in plas (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryofibrinogen Crit	Clinical Immunology	4 x 2.7 mL Light Blue (Sodium Citrate) Vacutainer tubes <b>and</b> 2 x 6 mL Red top Vacutainer tubes GENERAL LABORATORY REQUISITION	As required	0-2%  When there is no cryofibrinogen present, the crit is not performed.	2010-01-11	<p>Characterization is performed on serum only- positive cryofibrinogen plasma will not be characterized.</p> <p>The crit is the calculated relative percentage volume of cryofibrinogen to total sample volume. The crit is performed on all positive cryofibrinogen samples with adequate specimen volumes. The crit may not be calculated on samples with inadequate sample volume.</p> <p>The specimen tubes must remain at 37°C until the plasma and serum have been separated.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryoglobulin Characterization, Serum	Clinical Immunology	2 x 6 mL Red (no gels or serum separator) top Vacutainer tubes GENERAL LABORATORY REQUISITION Order Cryoglobulin. The characterization is part of the evaluation	As indicated	See report	2010-01-11	<p>Characterization will only be processed once per patient. The cryocrit will be used to monitor positive results.</p> <p>Identifies the cryoglobulin type: Monoclonal (Type I) or Mixed (Type II or Type III). The specimen tubes must remain at 37°C until the serum has been separated.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryoglobulin, Serum	Clinical Immunology	2 x 6 mL Red (no gels or serum separator) top Vacutainer tubes GENERAL LABORATORY REQUISITION - Order CRYO	Monday-Friday during regular work hours. No weekends or holidays.	Negative	2010-01-11	<p>If the cryo develops as a gel rather than flocculation, the crit may be technically impossible to perform.</p> <p>A preliminary report after 48 hours will be generated in Powerchart followed by a final report within 10 days.</p> <p>The final report will include a calculated cryocrit and a characterization identifying the type of cryoglobulin present.</p> <p><u>NOTE:</u> The cryocrit will be used to monitor positive patients as the characterization will only be processed once.</p> <p>The specimen tubes must remain a (more...)</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryptococcal Antigen	Microbiology (VH)	Blood or CSF CSF is the preferred specimen. MICROBIOLOGY REQUISITION	Weekdays			
Cryptococcus Culture	Microbiology (VH)	Body Fluids Blood Bone Marrow CSF Respiratory (bronchial wash, sputum, tracheal aspirate) Tissue/Biopsy Material Urine Wound Material (skin scrapings, subcutaneous lesions and abscesses, exudates) MICROBIOLOGY REQUISITION	Daily			Clinical history is important for adequate testing.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cryptosporidium Ova and Parasites	Microbiology (VH)	Faeces MICROBIOLOGY REQUISITION For full work up: PUBLIC HEALTH LABORATORY TEST REQUISITION	Daily		2010-09-13	
Crystal Analysis, Synovial Fluid Crystals (Joint Fluid)	Core	Synovial fluid collected in K <sub>2</sub> or K <sub>3</sub> EDTA  Note: Specimens anticoagulated with heparin and oxalate are <b>not</b> acceptable for crystal analysis. GENERAL LABORATORY REQUISITION	As required  Available STAT-24 hours/day, 7 days/week	No crystals seen	2006-12-27	
Crystals (Joint Fluid) (see <u>Crystal Analysis, Synovial Fluid</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Crystals - Surgical joint specimens	Pathology - UH	Tissue PowerChart: E-order choosing appropriate specimen. See Identification of Clinical Specimens.	Weekdays	See report		
CSF ALB (see <u>Albumin,CSF</u> )						
CSF Analysis (see <u>Cell Count and Differential,CSF</u> )						
CSF Culture	Microbiology (VH)	Cerebrospinal fluid obtained by lumbar puncture, shunt or drain MICROBIOLOGY REQUISITION	Daily		2008-06-05	
CSF IgG (see <u>Immunoglobulin G,CSF</u> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
CSF Index IgG/Alb CSF/Serum Ratio CSFI	Core	<b>Adult:</b> 1.0 mL of CSF and a 5 mL Gold or 6 ml Red top Vacutainer  0-2 years: 0.5 mL Gold or Red Microtainer 2-10 years: 3 mL Gold or Red Vacutainer tube <b>GENERAL            LABORATORY            REQUISITION</b>	Daily	0.25 0.85		
CSF Specific Transferrin (see <u>Beta-2 Transferrin</u> )						
CSFI (see <u>Albumin,CSF, CSF Index, Immunoglobulin G,CSF</u> )						
CTC (see <u>Circulating Tumor Cells</u> )						
ctDNA EGFR (see <u>EGFR ctDNA</u> )						
Cu (see <u>Copper,Whole Blood</u> )						
CYA (see <u>Cyclosporine</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cyanide	Core	4 mL Lavender or Royal Blue top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	< 5 µmol/L	2005-07-01	Referred out Monday - Thursday  Clearly write "CYANIDE" on the tube labels and requisition.
Cyanocobalamin (see Vitamin B12, Plasma/Serum)						
Cyclosporine CYA Neoral	Toxicology/Special Chemistry	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 Microtainer 2-10 yrs: 3 mL Lavender top GENERAL LABORATORY REQUISITION	Samples are tested Monday-Saturday. Specimens received in the Core Laboratory after 10:00am will be processed the next working day.	No established reference range. Concentrations are measured in ng/mL.	2009-02-27	Call the Toxicology/Special Chemistry Laboratory for more information: (519) 685-8500 x 64664 option #3.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cystatin C, Serum	Core	5 mL Gold top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 0.5 mL Red or Gold top Microtainer 2-10 years: 3 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As requested	0.61 - 0.95 mg/L Glomerular Filtration Rate estimated from measured Cystatin C: >90 mL/min	2007-03-08	CYSC eGFR is calculated based on the equation published by Filler G and Lepage N, <i>Pediatr Nephrol</i> 18: 981-985, 2003  CYSC eGFR calculation (Filler G, Lepage N, 2003) eGFR: < 15 mL/min/1.73 m <sup>2</sup> Consistent with kidney failure  eGFR: 15-29 mL/min/1.73 m <sup>2</sup> Consistent with severe chronic kidney disease  eGFR: 30-44 mL/min/1.73 m <sup>2</sup> Moderate to severe decreased kidney function is consistent with chronic kidney disease if confirmed over 3 months  eGFR: 45-59 (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cystic Fibrosis CF	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	2009-03-31	For more information click on: Molecular Diagnostic Laboratory. N/A CFTR related disorders include cystic fibrosis and absence of the vas deferens. Mutations in the CFTR gene can result in complex multisystem disease with morbidity resulting from pulmonary disease precipitated by lower airway inflammation and chronic endobronchial infection. The F508del mutation is a 3-base pair deletion in exon #10 of the CF gene that is associated with 70% of CF chromosomes in the Caucasian population. The American College of Medical Genetics (ACMG) has recommended (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cysticercosis Serology Taenia solium Serology	Microbiology (VH)	5 mL Gold or 6 mL Red top Vacutainer or CSF 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.  PARASRO must be ordered in lab or Infectious Disease Service
Cystine (see <u>Amino Acids, 24-Hour Urine</u> )						
Cystine, Leukocyte Leukocyte Cystine Cystinosis	Biochemical Genetics	2 x 6 mL Green (Sodium or Lithium Heparinized) top Vacutainer tubes GENERAL LABORATORY REQUISITION	Arrangements for test <b>must</b> be made in advance by calling 519-685-8500 Specimen Receiving ext. 71561	≤ 0.200 nmol/mg protein	2008-06-10	
Cystinosis (see <u>Cystine, Leukocyte</u> )						
Cystinuria (see <u>Amino Acids, 24-Hour Urine</u> )						
Cytomegalovirus PCR (Viral Load) (see <u>CMV PCR</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Cytomegalovirus Serology CMV IgM/IgG	Core (UH)	5 mL Gold or 6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	Daily Monday-Friday	See report	2006-07-01	