

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
IC (see <u>Immune Complexes</u> )						
Iduronate-2-Sulfate Sulfatase, Leukocytes/Plasma/Fibroblasts MPSII Hunter Syndrome	Biochemical Genetics	<p>1. 2 x 6 mL Dark Green (Sodium Heparinized) top Vacutainer</p> <p>2. 4.5 mL Green (Lithium Heparin) top Vacutainer tube</p> <p>3. Fibroblasts</p> <p><b>1. &amp; 2.</b> GENERAL LABORATORY REQUISITION</p> <p><b>3.</b> REGIONAL CYTOGENETICS REQUISITION</p>	As required	<p>Leukocyte: 30-53 nmol/mg protein/4 hr.</p> <p>Plasma: 167-475 nmol/ml plasma/4 hr.</p> <p>Fibroblast: 31-110 nmol/mg protein/4 hr.</p>	2008-06-10	
IFE (see <u>Immunofixation Electrophoresis, Serum, Immunofixation Electrophoresis, Urine: Random or 24-Hour Urine</u> )						
IFE Serum (see <u>Immunofixation Electrophoresis, Serum</u> )						
IFES (see <u>Immunofixation Electrophoresis, Serum</u> )						
IFEU24 (see <u>Immunofixation Electrophoresis, Urine: Random or 24-Hour Urine</u> )						
IFEUR (see <u>Immunofixation Electrophoresis, Urine: Random or 24-Hour Urine</u> )						
IgA (see <u>Immunoglobulin A, Plasma/Serum</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
IgD (see <u>Immunoglobulin D,Serum- IgD</u> )						
IgE, Total (see <u>Immunoglobulin E,Serum</u> )						
IGF-1 (see <u>Insulin-Like Growth Factor,Serum</u> )						
IGFBP3 Insulin-Like Growth Factor B.P.3 Insulin-Like Growth Factor Binding Protein 3	Core	6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	2m-5 years: 0.7- 5.2 MG/L 6-8 years: 1.3- 6.5 MG/L 9-11 years: 1.8- 8.4 MG/L 12-13 years: 2.7- 9.5 MG/L 14-16 years: 3.3- 10.0 MG/L 17-19 years: 2.9- 8.7 MG/L 20-39 years: 2.9- 7.8 MG/L 40-49 years: 3.3- 6.7 MG/L 50-70 years: 3.0- 6.9 MG/L >70 years: 2.2- 5.7 MG/L	2012-06-04	Sent out Tuesdays - Thursdays  Test is available ONLY to Endocrinologists from London Health Sciences Centre and St. Joseph's Health Care. Requests from all other physicians within LHSC/SJHC must be authorized.
IGFI (see <u>Insulin-Like Growth Factor,Serum</u> )						
IgG (see <u>Immunoglobulin G, Plasma/Serum</u> )						
IgG Antibodies to double stranded DNA (see <u>Anti double stranded DNA, IgG</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
IgG subclasses IgG subtypes IgG subsets IgG1 IgG2 IgG3 IgG4	Clinical Immunology	6 mL Red top or 5 mL Gold top Vacutainer tube Lithium heparinized plasma may also be accepted <b>Pediatric:</b> 0-2 yrs: Red 1.0 mL 2-10 yrs: Red 2.0 mL GENERAL LABORATORY REQUISITION		<b>Subclass IgG1 g/L:</b>  0-<2 years: 1.94- 8.42 2-<4 years: 3.15- 9.45 4-<6 years: 3.06- 9.45 6-<8 years: 2.88- 9.18 8-<10 years: 4.32-10.20 10-<12 years: 4.23-10.60 12-<14 years: 3.42-11.50 14-<18 years: 3.15-8.55 ≥18 years: 3.82- 9.29  <b>Subclass IgG2 g/L:</b>  0-<2 years: 0.23- 3.00 2-<4 years: 0.36- 2.25 4-<6 ye (more...)	2009-05-13	IgG subclass testing includes IgG1, IgG2, IgG3 and IgG4 as reported values.  Blood samples should be collected by venipuncture, allowed to clot naturally and the serum separated as soon as possible to prevent hemolysis.  Available for order in Powerchart by LHSC and SJHC physicians only.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
IgG subsets (see <a href="#">IgG subclasses</a> )						
IgG subtypes (see <a href="#">IgG subclasses</a> )						
IgG/Alb CSF/Serum Ratio (see <a href="#">CSF Index</a> )						
IgG1 (see <a href="#">IgG subclasses</a> )						
IgG2 (see <a href="#">IgG subclasses</a> )						
IgG3 (see <a href="#">IgG subclasses</a> )						
IgG4 (see <a href="#">IgG subclasses</a> )						
IgM (see <a href="#">Immunoglobulin M, Plasma/Serum</a> )						
IgM antibodies to AGM1 (see <a href="#">Anti GM1, IgM serum</a> )						
IgM antibodies to Asialo GM1 (see <a href="#">Anti GA1 IgM, Serum</a> )						
IgM antibodies to Ganglioside Monosialic Acid (see <a href="#">Anti GM1, IgM serum</a> )						
IgM vs Asialo-GM1 (GA1) (see <a href="#">Anti GA1 IgM, Serum</a> )						
IgM vs GA1 (see <a href="#">Anti GA1 IgM, Serum</a> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Image-Guided Fine Needle Aspirate Cytology Aspiration Biopsy Bone Breast Kidney Liver Lung Lymph Node Pancreas Salivary Gland Soft Tissue Thyroid Other FNA	Cytopathology-UH	<b>Non-Gynaecologica            I: Aspiration            Biopsy</b>  Orange top routine specimen container containing 30 mL Cytolyt solution/specimen material CYTOPATHOLOGY REQUISITION-NON-GYNAECOLOGICAL AREA	Weekdays		2005-08-01	If there is a clinical suspicion of <b>lymphoma</b> , a portion of the first and second pass should be submitted for Flow Cytometry in an appropriate fixative.  Cytopathology Laboratory Room A3-242 UH (519) 685-8500 x 36391/36392  Pager Numbers: Cytology SJHC - 10498 Cytology Victoria - 17227  Clinical history is an important component for diagnostic interpretation.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Imipramine, Serum Tofranil	Core	2 x 6 mL Red top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	Imipramine + Desipramine: 640-1080 nmol/L	2005-07-01	Referred out Monday - Thursday  <b>Toxic:</b> Imipramine + Desipramine : Greater than 1800 nmol/L

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immune Complexes Circulating immune complexes IC CIC	Clinical Immunology	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube or EDTA plasma  <b>Pediatric:</b> 0-2 yrs: Red 1.0 pk. 2-10 yrs: 2 mL Red top GENERAL LABORATORY REQUISITION	Batch Analysis once/20 business days	Negative: ≤19 RU/mL	2010-01-11	This assay DOES NOT quantitate C1q protein.  Results higher than top standard will be reported as >200 RU/mL.  CIC as measured by C1q binding are found sporadically in the normal population as a result of infection and can also be elevated after eating. Results from different technologies, methodologies and manufacturers kits may vary widely due to differences in standardization.  CIC testing is used to aid diagnosis only. CIC results are not diagnostic proof of the presence of absence of disease. Review the results in conj (more...)

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immune Status for Hepatitis B (see <u>Hepatitis B Surface Antibody</u> )						
Immunofixation Electrophoresis, Serum IFE IFE Serum IFES Light Chains	Clinical Immunology	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	Interpretative analysis	2009-02-27	<p>Protein electrophoresis (PEL) is always performed first. The PEL result will determine if IFE is performed. IFE is performed when an abnormal globulin band is detected on PEL that has not been identified previously by IFE. If the band has been identified previously by IFE and the PEL pattern has not changed significantly, the IFE will not be repeated for <math>\geq 4</math> years.</p> <p>IFE uses specific antisera to identify monoclonal immunoglobulins.</p>



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunofixation Electrophoresis, Urine: Random or 24-Hour Urine IFE IFEUR IFEU24 Light Chains Bence Jones Protein	Clinical Immunology	24-hour urine or random urine A 24-hour urine collection is the preferred specimen for analysis of Bence Jones protein (free light chains). If a 24-hour urine is not available, the first voided morning specimen is recommended. GENERAL LABORATORY REQUISITION	Monday - Friday 0800-1600	Interpretative analysis	2009-08-19	<p>Protein electrophoresis (PEL) is always performed first (unless the total protein concentration in the urine sample is &lt; 0.06 g/L, in which case IFE will be performed directly). The PEL result will determine if IFE is performed. IFE is performed when an abnormal globulin band is detected on PEL that has not been identified previously by IFE. If the band has been identified previously by IFE and the PEL pattern has not changed significantly, the IFE will not be repeated for <math>\geq 4</math> years.</p> <p>IFE uses specific antisera to identify monoclonal immunoglobulins.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin A, Plasma/Serum IgA	Core	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube</p> <p>Plasma is also acceptable. Green Vacutainer (Li Heparin) or Lavender (EDTA)</p> <p><b>Pediatric:</b> 0-2 years: Red 0.5 mL Microtainer 2-10 years: 2 mL Red top tube</p> <p>GENERAL LABORATORY REQUISITION</p>	Daily	<p>&lt;1 year: 0.0-0.1 g/L 1-&lt;3 years: 0.0-0.8 g/L 3-&lt;6 years: 0.1-1.4 g/L 6-&lt;14 years: 0.3-2.2 g/L 14-&lt;19years: 0.4-2.9 g/L Adult: 0.7-4.0 g/L</p>	2010-01-11	Serum IgG, IgA, and IgM are tested simultaneously as a group.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin D, Serum- IgD IgD	Core	5 mL Gold top Vacutainer tube  <b>Pediatric:</b> 0-2 yrs: Red 0.5pk. 2-10 yrs: 2 mL Red top GENERAL LABORATORY REQUISITION	Referred out as required	7.7-132.1 mg/L	2010-03-12	

Immunoglobulin E, Allergen Specific (see Allergen Specific IgE, Serum)

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Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin E, Serum IgE, Total	Core	5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube  Plasma is also acceptable. Green Vacutainer (Li Heparin)  <b>Pediatric:</b> 0-2 years: Red 0.5 mL Microtainer 2-10 years: 2 mL Red top tube GENERAL LABORATORY REQUISITION	Batch analysis	0 1 year: ≤15 kU/L 1 6 years: ≤60 kU/L 6 10 years: ≤90 kU/L 10 16 years: ≤200 kU/L >16 years: ≤100 kU/L	2010-01-11	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin G, Plasma/Serum IgG	Core	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube</p> <p>Plasma is also acceptable. Green Vacutainer (Li Heparin) or Lavender (EDTA)</p> <p><b>Pediatric:</b> 0-2 years: Red 0.5 mL Microtainer 2-10 years: 2 mL Red top tube</p> <p>GENERAL LABORATORY REQUISITION</p>	Daily	<p>0-&lt;15 days: 3.2-12.1 g/L 15 days-&lt;1 year: 1.5-6.3 g/L 1-&lt;4 years: 3.2-9.9 g/L 4-&lt;10 years: 5.0-11.7 g/L 10-&lt;19 years: 6.0-13.1 g/L Adult: 7.0-16.0 g/L</p>	2010-01-11	Serum IgG, IgA, and IgM are tested simultaneously as a group.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin G,CSF CSF IgG 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 GENERAL LABORATORY REQUISITION	Daily	10-30 mg/L	2010-01-11	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Immunoglobulin M, Plasma/Serum IgM	Core	<p><b>Adult:</b> 5 mL Gold top Vacutainer tube or 6 mL Red top Vacutainer tube</p> <p>Plasma is also acceptable. Green Vacutainer (Li Heparin) or Lavender (EDTA)</p> <p><b>Pediatric:</b> 0-2 years: Red 0.5 mL Microtainer 2-10 years: 2 mL Red top tube GENERAL LABORATORY REQUISITION</p>	Daily	<p>0-&lt;15 days: 0.0-0.3 g/L 15 days-&lt;13 weeks: 0.1-0.7 g/L 13 weeks-&lt;1 year: 0.1-0.8 g/L</p> <p>1-&lt;19 years: 0.5-1.8 g/L (Female) 0.4-1.4 g/L (Male) Adult: 0.4-2.3 g/L</p>	2010-01-11	Serum IgG, IgA, and IgM are tested simultaneously as a group.
Immunoglobulins, Free light chains (see <u>Serum Free Light Chains</u> )						
Immunoreactive trypsin (see <u>Trypsin/Trypsinogen, Serum</u> )						
Immunoreactive trypsinogen (see <u>Trypsin/Trypsinogen, Serum</u> )						
Infectious Mononucleosis (see <u>Epstein Barr Virus Serology, Heterophile Antibody Screen</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Influenza Virus (see <u>Respiratory Virus Panel (RPCR)</u> )						
Influenza Virus Serology-Test not available Virus Culture (recommended method of testing for Influenza)	Test not available (Various)	Blood-5 mL Gold or 6 mL Red top Vacutainer tube				
Inorganic Phosphate (see <u>Phosphate, 24-Hour Urine, Phosphate,Plasma, Phosphate,Urine-Random</u> )						
Inorganic Phosphate (fluid) (see <u>Phosphate,Fluid</u> )						
Inorganic Phosphorus, PO4 (see <u>Phosphate,Plasma</u> )						



Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
INR International Normalized Ratio PT Prothrombin Time	Core	2.7 mL Blue (3.2% Sodium Citrate) top Vacutainer  <b>Pediatric:</b> 0 months-10 years: 1.8 or 1 mL Blue top (3.2% Sodium Citrate) tube GENERAL LABORATORY REQUISITION	As required	Age/Range: < 5 days: 0.9-1.6 5 days-Adult: 0.9-1.1	2011-01-14	<p><b>PT results will not be released on patients. For the INR based Maddrey Score please use the following link:</b></p> <p>Maddrey Score. This score is based on ISI and PT control values. Please use current ISI of 1.1 and PT control of 11.7 seconds. These values will be updated when necessary. Use MELD score as alternative.</p> <p>INR: <math>\geq 4.5</math>            PTT: <math>\geq 100</math> (for patients NOT on anticoagulants)            Detects abnormalities in the extrinsic pathway. Increased in liver disease, Vitamin K deficiency, obstructive jaundice and hemorrhagic disease of the newborn.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Insulin Antibodies, Serum Anti Insulin	Core	5 mL Gold top Vacutainer tube GENERAL LABORATORY REQUISITION (if approved, a hard copy of the requisition is required)	Referred out as required	Less than 0.4 kU/L	2015-11-26	Referred out Tuesday-Thursday  <b>Can only be ordered by the Specimen Receiving Department of Pathology and Laboratory Medicine after Biochemist's approval.</b>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Insulin, Serum	Core	<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 <b>NOT</b> recommended</p> <p>GENERAL LABORATORY REQUISITION</p>	Monday - Friday 0800-1600	18 - 173 pmol/L	2018-03-06	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.
Insulin-Like Growth Factor B.P.3 (see <u>IGFBP3</u> )						
Insulin-Like Growth Factor Binding Protein 3 (see <u>IGFBP3</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Insulin-Like Growth Factor, Serum Somatomedin C IGFI IGF-1	Endocrinology	5 mL Gold or Red top Vacutainer tube  <b>Pediatric:</b> 0-2 years: 0.5 mL microtainer tube 2-10 years: 2 mL Gold or Red top Vacutainer tube GENERAL LABORATORY REQUISITION	Monday- Friday 0800-1600	Age (years) Male (g/L) Female (g/L) 0-11-100 (more...)	2014-11-17	

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Intact Parathyroid Hormone (see <u>Parathyroid Hormone, Plasma</u> )						
Intact PTH (see <u>Parathyroid Hormone, Plasma</u> )						
Integrated Prenatal Screen (see <u>Maternal Serum Screen (for Open Neural Tube Defect and Down Syndrome Risks)</u> )						
International Normalized Ratio (see <u>INR</u> )						
Intra-operative consultation Frozen Section	Pathology	Specimens are always STAT, fresh and unfixed PowerChart: E-order choosing appropriate specimen. See Identification of Clinical Specimens.	Monday - Friday 0800-1800  After hours, page the Anatomical Pathologist or Resident, Neuropathologist or Resident.	See report		

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Intrinsic Factor Antibodies, Serum Anti Intrinsic Factor	Core (all campuses)	6 mL Red or 5 mL Gold top Vacutainer tube GENERAL LABORATORY REQUISITION	As required	Negative	2000-09-11	<p>Referred out Tuesday - Thursday</p> <p>Results will be reported as NEGATIVE, EQUIVOCAL or POSITIVE. Equivocal results will include a recommendation for a repeat specimen.</p> <p>A NEGATIVE result does not exclude pernicious anemia as only 60% of subjects with pernicious anemia have Intrinsic factor Antibodies. Thus the assay results are not diagnostic and must be interpreted in conjunction with clinical findings and other diagnostic tests. Submit a separate aliquot if Parietal Cell Antibodies is also requested.</p>

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Iodine, Urine: Random or 24-Hour	Core	24 hour urine collected in an <b>unused</b> 24-hour urine container or random urine GENERAL LABORATORY REQUISITION	Referred out Tuesday-Thursday	24-Hour urine: 0.79-3.62 umol/d, Conversion factor ug/d x 0.0079  Random urine: 0.33-2.76 umol/L, conversion factor ug/dL x 0.0788		
Iodine, Plasma	Core	6mL K2-EDTA Royal Blue Vacutainer tube  GENERAL LABORATORY REQUISITION	Referred out Tuesday-Thursday	0.24-0.63 µmol/L  Conversion factor ug/dL x 0.0788		
Ionized Calcium (see <u>Calcium-Ionized, Whole blood</u> )						
IPS (see <u>Maternal Serum Screen (for Open Neural Tube Defect and Down Syndrome Risks)</u> )						
Iron Binding Capacity Saturation (see <u>Unsaturated Iron Binding Capacity</u> )						
Iron Overload (see <u>Unsaturated Iron Binding Capacity</u> )						
Iron Overload Screen (see <u>Transferrin Saturation</u> )						

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Iron, Plasma	Core UH & VH	4.5 mL Green top Vacutainer <b>Pediatric:</b> 0-2 yrs: 0.6 mL Green pk. 2-10 yrs: 3 mL Green top GENERAL LABORATORY REQUISITION	As required	Male: 8-29 µmol/L Female: 7-26 µmol/L	2008-11-15	<p>Plasma samples containing RBC hemolysate may have slightly increased iron values.</p> <p>Useful in confirming the diagnosis of iron-deficiency anemia or hemochromatosis.</p> <p>Assessment of patients with acute iron poisoning. Serum ferritin is the preferred method for assessing iron stores.</p> <p>The concentration of iron in serum/plasma is dependent on the diet and is subject to circadian variations. Values are higher in A.M.</p> <p>Increased levels found with liver damage, hemolytic anemia, pernicious anemia, hemochromat (more...)</p>



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Iron, Tissue	Trace Elements	Fresh or frozen tissue is acceptable TRACE ELEMENTS REQUISITION	Batched analysis	<b>Liver:</b> 3.6-35.8 $\mu$ mol/g  ** Reference range is tissue dependent.		Reference Ranges are based on Non-Occupationally exposed population.  Find Interpretive Comment and Clinical Information here:  Gold standard for diagnosis of haemochromatosis-liver biopsy.

Test Name	Laboratory	Specimen Type	Test Schedule	Reference Range	Effective Date	Comments
Iron,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: 0.02-0.24 µmol/L  µmol/mol creatinine AgeFe maleMale0-112.0-28.42.0-27.112-191.3-17.31.3-16.820-291.5-19.51.1-14.930-391.8-23.61.3-17.440-492.1-28.01.4-18.350-592.5-33.11.6-21.160-692.5-32.61.7-22.170-792.6-34.01.8-23.8≥803.1-41.82.0-27.1  24 Hour Urine: 0.05-0.36 µmol/d  <u>Conventional Units:</u> (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
Islet Cell Antibodies (see <u>Anti Islet Cell Antibodies, Serum</u> )						
Isopropanol (see <u>Alcohol Fractionation (by Gas Liquid Chromatography)</u> )						