
LACTIC ACID

Specimen Requirements: Fasting, arterial specimen preferred. Please note whether arterial or venous. 0.5 mL heparinized plasma. Green top or PST **must be drawn, placed on ice, and spun within 15 minutes. Immediately separate plasma, and refrigerate. Stable at room temp for 8 hours, but refrigeration is preferred. Stable refrigerated for 14 days. Redraw grossly hemolyzed or lipemic specimens.**

Reference Range: 0.5 - 1.6 mmol/L (arterial)
0.7 - 2.1 mmol/L (venous)

Report Time: 24 Hours

Day(s) Set Up: Monday through Sunday

CPT Code: 83605

LACTOSE TOLERANCE

Specimen Requirements: The patient must not have food or drink after midnight until completion of the test. All blood specimens should be collected in green or PST tubes. Separate plasma (0.5 mL minimum for each draw). Avoid hemolysis. Collect a fasting blood glucose specimen. Label specimen "fasting". Collect a stool sample for pH if possible, before the test begins. Test for pH using pH paper. Smoking is prohibited during this test.

Administer a dose of lactose equal to 2 gm/kg or 0.9 gm/lb of body weight. It may be dissolved in a maximum of 400 mL of water. The dose is to be consumed in 15 minutes. If vomiting occurs, the test must be rescheduled.

Collect blood specimens for glucose analysis at 30, 60, 90, and 120 minutes. Time the collection from completion of drinking the lactose solution. Label all specimens appropriately, indicating the hour of collection. All specimens should be sent at the same time. Use pH paper to determine the pH on any stool passed during or within 2 hours after the test.

Reference Range: Most normal individuals will have an increase in blood glucose greater than 25 mg/dL sometime during the course of the test. Persons who are lactose intolerant and approximately 25% of apparently normal individuals have a flat curve with a maximum increase of less than 25 mg/dL.

Caution: **This amount of lactose may cause severe diarrhea and distension in lactase-deficient individuals which may be serious, particularly in infants.**

Report Time: 24 Hours

Day(s) Set Up: Monday through Sunday

CPT Code:	GTT X 3 + Glucose Dose	82951
	GTT, each additional	82952

LDH (Lactic Dehydrogenase)

Specimen Requirements:	1.0 mL plasma (green or PST). Avoid hemolysis.
Reference Range:	313 - 618 U/L Refer to Addendum #5 for additional reference ranges.
Report Time:	24 Hours
Day(s) Set Up:	Monday through Sunday
CPT Code(s):	83615

LDH Fluid

Specimen Requirements:	3 mL of fluid in green top or red top. DO NOT USE PST. Specimen cannot be analyzed if too viscous.
Reference Range:	No reference ranges established
Report Time:	24 Hours
Day(s) Set Up:	Monday through Sunday
CPT Code(s):	83615

LEGIONELLA ANTIGEN URINE

Specimen Requirements:	5 mL random urine collected within 3 days of symptom onset and not diluted by diuretics. Refrigerate until pickup.
Reference Range:	Negative
Report Time:	24 hours
Day(s) Set Up:	Monday through Friday
CPT Codes(s):	87449

LEUKEMIA + LYMPHOMA EVALUATION (LYMPHOCYTE IMMUNOPHENOTYPING)

This profile is designed for use in diagnosis and classification of acute and chronic leukemias and lymphomas in peripheral blood, bone marrow, lymph nodes or any relevant tissue. It identifies cell surface markers and cytoplasmic markers for lymphocytes, granulocytes, monocytes, platelets, erythrocytes and their precursors.

Specimen Requirement:

Peripheral Blood - 5 mL EDTA vacutainer tube. **Specimen must be kept at room temperature and received within 24 hours. If ordering a ZAP 70 for CLL – Specimen must be tested within 24 hours. Must arrive to SMH within 12 hours of collection.**

Note: Preliminary evaluation of peripheral blood for appropriate cell population for flow cytometry is done by CBC and Peripheral Blood Smear Consult. If preliminary evaluation determines that flow cytometry is not appropriate, a CBC and/or

Peripheral Blood Smear Consult will be charged.

Bone Marrow - 5 mL EDTA or sodium or lithium heparin vacutainer tube. **Specimen must be kept at room temperature and received within 24 hours.**

Note: Preliminary evaluation of Bone Marrow aspirates is done by a pathologist. If preliminary evaluation determines that a Leukemia/Lymphoma may not be appropriate, the ordering physician will be contacted and the order for Leukemia/Lymphoma cancelled.

Lymph Node or other Site - Fresh tissue measuring 0.5-1.0 ccm, in RPMI (flow media) or similar tissue culture media. If not available, transport in sterile saline ASAP. **Specimen should be refrigerated at 4⁰C and received within 24 hours.** See "Transportation" - Overnight Courier

Reference Range: Not Applicable.
All appropriate markers necessary for complete identification of cells will be run. The interpretation will attempt to indicate the significance of the findings in light of current literature and other findings in the case. If you have a need for immunophenotyping for an application other than Leukemia/Lymphoma, please contact the Flow Cytometry lab at (608) 258-6309 to determine the best way to order the test and handle the specimen.

Day(s) Set Up: Monday through Friday.
For same day processing, samples must arrive at St. Mary's by 1PM. If a case is of a critical nature, please contact the St Mary's Flow Lab at (608) 258-6309 for assistance.

CPT Code(s): 88184 Flow 1st Marker Technical
88185 Flow Additional Marker Technical
88187 Flow 2-8 Marker Interpretation
88188 Flow 9-15 Marker Interpretation
88189 Flow 16+ Marker Interpretation

LEUKOCYTE ALKALINE PHOSPHATASE WITH COUNT

Specimen Requirements: Heparin green top (no gel) and lavender top tube. Needs to arrive within 8 hours of collection.

Reference Range: 20 - 140

Report Time: 48 Hours

Day(s) Set Up: Monday through Friday

CPT Code(s): 85540

LH (Luteinizing Hormone)

Specimen Requirements: 1 mL serum (SST or red). **Freeze if stored longer than 48 hours.**

Reference Range:

Male:		1.5 - 9.3 mIU/mL
Female:	Follicular Phase	1.9 - 12.5 mIU/mL
	Midcycle	8.7 - 76.3 mIU/mL

Luteal Phase 0.5 - 16.9 mIU/mL
Post Menopausal 15.9 - 54.0 mIU/mL

Report Time: 24-96 Hours
Day(s) Set Up: Monday through Friday
CPT Code(s): 83002

LIPASE

Specimen Requirements: 1 mL serum (red or SST).
Reference Range: 23 -208 U/L
Report Time: 24 Hours
Day(s) Set Up: Monday through Sunday
CPT Code(s): 83690

LIPASE FLUID

Specimen Requirements: 1 mL fluid (red or SST).
Reference Range: No reference range established
Report Time: 24 Hours
Day(s) Set Up: Monday through Sunday
CPT Code(s): 83690

LIPID PROFILE (CORONARY RISK PANEL) (revised 4/1/08)

Includes: Cholesterol, LDL Cholesterol, Triglyceride, HDL, and non-HDL

Specimen Requirements: 2 mL plasma (green or PST) **Fasting 12-14 hours required.**

Reference Range:

Cholesterol		
Desirable	<200 mg/dL	
Borderline High	200-240 mg/dL	
High	>240 mg/dL	
LDL Cholesterol	<100 mg/dL	= Optimal
(calculated)	100-129 mg/dL	= Near Optimal
	130-159 mg/dL	= Borderline High
	160-189 mg/dL	= High
	> 190 mg/dL	= Very High
Triglyceride	<150 mg/dL	= Desirable
	150-199 mg/dL	= Borderline High
	200 - 499 mg/dL	= High
	>500 mg/dL	= Very High
HDL	Male	>40 mg/dL Desirable
	Female	>50 mg/dL Desirable
Non-HDL	Depends on individual patient risk category	

Report Time: 24 Hours

Day(s) Set Up: Monday through Friday

CPT Code(s): 80061

LITHIUM

Specimen Requirements: 1.0 mL serum (red or SST). Freeze if stored longer than 24 hours.
Redraw grossly hemolyzed specimens.

Reference Range: Therapeutic: 0.6 - 1.2 mmol/L

Report Time: 24 Hours

Day(s) Set Up: Monday through Sunday

CPT Code(s): 80178

LYME ANTIBODY SCREEN

All positive and equivocal samples are confirmed by Western Blot at an additional charge.
(Quest)

Specimen Requirements: 3 mL serum (red or SST) Avoid hemolysis and lipemia.
Not available on CSF or fluids

Reference Range: Negative

Report Time: 24 - 48 Hours

Day(s) Set Up: Monday, Wednesday, Friday

CPT Codes(s): 86618

LYTES (NA K CL CO₂)

Specimen Requirements: 1.0 mL plasma (green or PST). Fasting preferred.
Avoid hemolysis.

Reference Range:

Sodium	136 - 145 mmol/L
Potassium	3.5 - 5.1 mmol/L
Chloride	98 - 107 mmol/L
CO ₂	22 - 31 mmol/L

Refer to Addendum #5 for additional reference ranges.

Report Time: 24 Hours

Day(s) Set Up: Monday through Sunday

CPT Code(s): 80051