

# **BRATTLEBORO MEMORIAL HOSPITAL**

## **2024 LAB GUIDE TEST MENU**

**STAT TESTING MENU FOR ED AND INPATIENTS ONLY (2 Pages)  
60 Minute In-Lab Turnaround Time (TAT) Unless Further Noted**

**BLOOD BANK**

1. Compatibility testing (leuko-reduced packed cells)
2. Type and Screen

**CHEMISTRY**

1. Ammonia
2. Basic Metabolic Panel: Sodium, Potassium, Chloride, CO<sub>2</sub>, Creatinine, BUN, Glucose, and Calcium
3. Beta-hydroxybutyrate (ketone)
4. Bilirubin (Total, Neonates)
5. Blood Urea Nitrogen (BUN)
6. Calcium
7. Creatinine
8. CSF (Glucose and Protein)
9. Electrolytes: Sodium (Na), Potassium (K), Chloride (Cl), CO<sub>2</sub>
10. Fluid pH (non-pleural)
11. Glucose
12. HCG Serum (Qualitative and Quantitative)
13. Iron
14. Lactic Acid
15. Lipase
16. Liver Panel: ALB, ALT, AST, T. Bil., Alk Phos., T. Protein, D. Bil
17. Magnesium
18. NT- Pro BNP
19. Therapeutic Drug Assay:

Acetaminophen  
Digoxin  
Gentamycin  
Salicylate

Tobramycin  
Valproic Acid  
Vancomycin

19. Troponin-T (30 min TAT)
20. Ethanol
21. Lipase

**HEMATOLOGY**

1. Cerebrospinal Fluid Cell Count
2. Complete Blood Count (CBC)
3. D-dimer
4. Fetal Fibronectin
5. Fibrinogen
6. Heparin, Unfractionated and Low Molecular Weight
7. Partial Thromboplastin Time (PTT)
8. Prothrombin Time (PT/INR)

### **MICROBIOLOGY**

1. Spinal Fluid Culture set up and Gram Stain of sediment
2. STAT Gram Stains (Intra-operative)
3. Wet prep
4. Rapid Strep A Antigen Test
5. Rapid Influenza A & B Antigen test
6. Rapid RSV Antigen test
7. Legionella antigen on urines
8. Streptococcus pneumoniae antigen on urines
9. Sars-CoV-2/COVID-19 (90 minutes)

### **SEROLOGY**

1. Monospot Test
2. Rapid HIV (for needlesticks and prenatal screens only)

### **URINALYSIS**

1. Complete Urinalysis
2. Drugs of Abuse Urine Screen including Fentanyl
3. Urine HCG (Qualitative)

## OutPatient STAT Requests

Outpatient STAT test results will be available by computer, print or fax within 2 hours of the receipt of the specimen into the lab. Fax and print servers are programmed to deliver STAT results outside of the regular schedule.

## ABO GROUP AND RH TYPE

<b><u>TEST NAME:</u></b>	ABO GROUP AND RH TYPE
<b><u>CPT CODE:</u></b>	86900 & 86901
<b><u>SPECIMEN REQUIREMENT:</u></b>	EDTA vacutainer tube (pink top)
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood sample.
<b><u>METHOD:</u></b>	Agglutination
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same Shift</li><li>• 30 minutes for STATs</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To identify a person's blood type for any reason: compatibility, testing, prenatal workup.
<b><u>STORAGE REQUIREMENTS:</u></b>	Room temperature or at 1- 8°C.

## ACETAMINOPHEN (TYLENOL)

<b><u>TEST NAME:</u></b>	ACETAMINOPHEN (TYLENOL)
<b><u>CPT CODE:</u></b>	80302
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	10-30 ug/mL
<b><u>CRITICAL VALUE:</u></b>	>150 ug/mL
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>COLLECTION REQUIREMENTS:</u></b>	Acetaminophen specimens should not be drawn earlier than 4 hours after ingestion. If the time of ingestion is not known, 2 or more blood samples taken at two or three hour intervals may be used to estimate acetaminophen half-life and assess toxicity.
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Drug toxicity, monitoring therapeutic levels.
<b><u>LIMITATIONS:</u></b>	<b>Alcohol and Phenobarbital may interfere by accelerating Acetaminophen toxicity.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 2 days after testing.</li></ul>

## ALANINE AMINOTRANSFERASE (ALT OR SGPT)

<b><u>TEST NAME:</u></b>	ALANINE AMINOTRANSFERASE (ALT or SGPT)
<b><u>CPT CODE:</u></b>	84460 (ALT)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females $\leq$ 33 U/L Males $\leq$ 41 UL
<b><u>METHOD:</u></b>	UV without P5P
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Liver function
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Samples will be capped and held for 3 days after testing.

## ALBUMIN

**TEST NAME:**

ALBUMIN

**CPT CODE:**

82040 (ALB)

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

3.5 - 5.2 g/dL

**METHOD:**

Colorimetric (Bromocresol green)

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily

**TURNAROUND TIME:**

Same shift testing.

**GENERAL USE OF TEST:**

Nutritional status, blood oncotic pressure.

**LIMITATIONS:**

- Albumin concentrations vary with posture.
- Results from an upright posture may be approximately 0.3 g/dL higher than those from a recumbent posture.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.



## ALKALINE PHOSPHATASE

<b><u>TEST NAME:</u></b>	ALKALINE PHOSPHATASE
<b><u>CPT CODE:</u></b>	84075
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females: 35 – 105 IU/L Males: 40 – 130 IU/L
<b><u>METHOD:</u></b>	PNPP, AMP Buffer
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Liver function, bone disease.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## AMMONIA

**TEST NAME:**

AMMONIA

**CPT CODE:**

82140

**SPECIMEN REQUIREMENT:**

- **AMMONIA: The specimen of choice is 5 mL lavender tube.**
- Collect by standard venipuncture techniques and keep on ice.
- **Centrifuge specimen immediately.**
- Test immediately once cap is removed.
- Store at 2° - 8°C in a tightly stoppered plain transport tube.

**REFERENCE RANGE:**

Females 11-51 µmol/L

Males 16-60 µmol/L

**METHOD:**

Enzymatic with Glutamate Dehydrogenase

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

- Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Ammonia-hepatic failure, liver necrosis and Reyes Syndrome.

**LIMITATIONS:**

**Failure to place sample on ice after collection or failure to promptly separate cells and plasma can result in falsely elevated levels of ammonia.**

**SPECIMEN PREPARATION:**

Centrifuge specimen and remove the plasma from cells within 15 minutes of collection.

**ADD-ON REQUIREMENTS**

Samples will be capped and held for 15 minutes after testing.

## AMYLASE

**TEST NAME:**

AMYLASE

**CPT CODE:**

82150

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL tiger top tube serum tube.

**REFERENCE RANGE:**

28 - 100 U/L

**METHOD:**

G7, PNP, Blocked

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

- Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Pancreatitis, obstruction in pancreatic duct and macroamylasemia.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen, separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## ANTIBODY SCREEN

<b><u>TEST NAME:</u></b>	<b>ANTIBODY SCREEN (Indirect Coombs Test)</b>
<b><u>CPT CODE:</u></b>	86850
<b><u>SPECIMEN REQUIREMENT:</u></b>	Pink EDTA vacutainer tube
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood sample.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>CRITICAL VALUE:</u></b>	Antibody detection on STAT request.
<b><u>METHOD:</u></b>	Tube Method
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• 60 minutes for STATs</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To determine if sensitization to red cell antigens has occurred. If screen is positive, antibody identification will be performed.
<b><u>PATIENT PREPARATION:</u></b>	An armband is required on the patient so that positive patient identification can be established.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 14 days after testing.

## ASPARTATE AMINOTRANSFERASE (AST or SGOT)

<b><u>TEST NAME:</u></b>	ASPARTATE AMINOTRANSFERASE (AST or SGOT)
<b><u>CPT CODE:</u></b>	84450
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Female <32 IU/L Male <40 IU/L
<b><u>METHOD:</u></b>	UV without P5P
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Cardiac function or liver function.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## BASIC METABOLIC PANEL

<b><u>TEST NAME:</u></b>	<b>BASIC METABOLIC PANEL (Na, K, Cl, CO<sub>2</sub>, Gluc, Bun, Calcium &amp; Creatinine)</b>
<b><u>CPT CODE:</u></b>	80048
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL red top tube.
<b><u>REFERENCE RANGE:</u></b>	See individual tests
<b><u>CRITICAL VALUE:</u></b>	See individual tests
<b><u>METHOD:</u></b>	See individual tests
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of various serum biochemistry constituents.
<b><u>LIMITATIONS:</u></b>	<b>Hemolyzed or lipemic specimens.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## BETA HYDROXYBUTYRATE (QUANTITATIVE)

<b><u>TEST NAME:</u></b>	BETA HYDROXYBUTYRATE (QUANTITATIVE)
<b><u>CPT CODE:</u></b>	82010
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL plasma from a green top tube (heparin).
<b><u>REFERENCE RANGE:</u></b>	0.02 – 0.27 mmol/L
<b><u>METHOD:</u></b>	Enzymatic
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily or STAT</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• If ordered STAT, within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To diagnose Diabetic Ketoacidosis (DKA) and monitor the results of treatment.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen, separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## BILIRUBIN, DIRECT

<b><u>TEST NAME:</u></b>	<b>BILIRUBIN, DIRECT</b>
<b><u>CPT CODE:</u></b>	82248
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	0.0 – 0.3 mg/dL
<b><u>METHOD:</u></b>	Diazotization
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Liver function test useful in the diagnosis of jaundice due to liver disease, hemolytic anemia.
<b><u>LIMITATIONS:</u></b>	<b>Specimen must be protected from light.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b>STORAGE REQUIREMENTS</b>	Room Temp: 2 days Refrigerated: 7 days



## BILIRUBIN, TOTAL

<b><u>TEST NAME:</u></b>	BILIRUBIN, TOTAL
<b><u>CPT CODE:</u></b>	82247
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	< 1.3 mg/dL
<b><u>CRITICAL VALUE</u></b>	≥ 13.0 mg/dL
<b><u>METHOD:</u></b>	Colorimetric diazo method
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Liver function test useful in the diagnosis of jaundice due to liver disease, hemolytic anemia.
<b><u>LIMITATIONS:</u></b>	<b>Specimen must be protected from light.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## C-REACTIVE PROTEIN (High Sensitivity- Cardiac Risk)

<b><u>TEST NAME:</u></b>	<b>C-REACTIVE PROTEIN (High Sensitivity)</b>
<b><u>CPT CODE:</u></b>	86141
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Low Risk < 1.0 ng/dL Average Risk 1 – 3 ng/dL High Risk > 3 ng/dL
<b><u>METHOD:</u></b>	Turbidimetry
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Used in evaluation of myocardial infarction, stress, trauma, infection, inflammation, surgery and neoplastic proliferation.
<b><u>LIMITATIONS:</u></b>	<b>Hemolyzed or lipemic specimens should not be used.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be held for 7 days after testing.</li></ul>

## C-REACTIVE PROTEIN (Inflammatory)

<b><u>TEST NAME:</u></b>	<b>C-REACTIVE PROTEIN (Inflammatory)</b>
<b><u>CPT CODE:</u></b>	86140
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	0 – 5 mg/L
<b><u>METHOD:</u></b>	Immunoturbidimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Used in evaluation of stress, trauma, infection, inflammation and surgery.
<b><u>LIMITATIONS:</u></b>	<b>Hemolyzed or lipemic specimens should not be used.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be held for 7 days after testing.</li></ul>

## **CALCIUM**

**TEST NAME:**

**CALCIUM**

**CPT CODE:**

82310

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

8.6 – 10.2 mg/dL

**CRITICAL VALUE:**

<7.0 or >14.0 mg/dL

**METHOD:**

BAPTA

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing
- Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Evaluation of calcium metabolism.

**LIMITATIONS:**

- Recumbent patients may have 0.2 – 0.3 mg/dL lower levels.
- Blood from patients on EDTA therapy cannot be used.
- Blood from patients on Hypaque radiographic contrast agent cannot be used.
- Blood collected w/stasis may have calcium concentrations 15% higher.
- Protective gloves manufactured with calcium carbonate powders may cause elevated test results because of contamination of sample handling supplies. Use powder-free gloves; handle supplies with clean hands.
- **Note:** Gloves labeled as powder-free may contain some contaminating powder agents on the inside of the gloves.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## CALCIUM, URINE

<b><u>TEST NAME:</u></b>	<b>CALCIUM, URINE (24 Hours)</b>
<b><u>CPT CODE:</u></b>	82340
<b><u>SPECIMEN REQUIREMENT:</u></b>	Total 24-hour urine collected in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	24-hour urine: 100 – 300 mg/TV
<b><u>METHOD:</u></b>	BAPTA
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of calcium excretion, parathyroid disorders, renal tubular disease, bone disease and Vitamin D intoxication.
<b><u>PATIENT PREPARATION:</u></b>	Low calcium diet for 3 days.
<b><u>SPECIMEN PREPARATION:</u></b>	The specimen of choice is 24-hour collection, no preservative, refrigerate during collection and keep refrigerated until analysis.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## CARBAMAZEPINE

<b><u>TEST NAME:</u></b>	<b>CARBAMAZEPINE</b> (TEGRETOL)
<b><u>CPT CODE:</u></b>	80156
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 0.5 mL serum from a 5 mL plain red top tube.</li><li>• <b>Do not collect in an SST tube.</b></li></ul>
<b><u>REFERENCE RANGE:</u></b>	8 - 12 µg/mL
<b><u>CRITICAL VALUE:</u></b>	>15 µg/mL
<b><u>METHOD:</u></b>	Electroimmunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>COLLECTION REQUIREMENTS:</u></b>	<ul style="list-style-type: none"><li>• <i>Trough:</i> Immediately prior to next oral dose.</li><li>• <i>Peak:</i> Draw 3 hours after oral dose.</li></ul>
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Monitor therapeutic drug levels.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## CARBON DIOXIDE, TOTAL

<b><u>TEST NAME:</u></b>	CARBON DIOXIDE, TOTAL
<b><u>CPT CODE:</u></b>	82374
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube. Ordered as part of BMP or CMP
<b><u>REFERENCE RANGE:</u></b>	22 – 29 mmol/L
<b><u>CRITICAL VALUE:</u></b>	<15 or >40 mmol/L
<b><u>METHOD:</u></b>	Enzymatic
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	Same shift testing. Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of acid-base status.
<b><u>SPECIMEN PREPARATION:</u></b>	Collect specimen using standard lab procedures. Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 24 hours after testing.

## CELL COUNT, BODY FLUID

<b><u>TEST NAME:</u></b>	<b>CELL COUNT, BODY FLUID</b> (RBC, WBC, Total Cell Count & Differential when needed)
<b><u>CPT CODE:</u></b>	89051
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 0.5 mL cerebrospinal fluid collected in sterile screw cap tubes, which are labeled #1, #2, #3 and #4.</li><li>• Cell counts will be performed on tube #4. (<b><u>See note below</u></b>)</li></ul>
<b><u>REFERENCE RANGE:</u></b>	0 – 10 cells/mm <sup>3</sup>
<b><u>METHOD:</u></b>	Manual using hemocytometer or Automated
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of cellular exudation into cerebral spinal space.
<b><u>LIMITATIONS:</u></b>	<b>If WBC is less than 10 cell/mm<sup>3</sup>, a differential will not be performed.</b>
<b><u>ADD-ON REQUIREMENTS</u></b>	Cell count must be performed immediately due to rapid cell lysis on standing.

**Note:** If the physician collects 3 tubes of cerebrospinal fluid, the cell count will be done on tube #3.



## CHLORIDE

<b><u>TEST NAME:</u></b>	CHLORIDE
<b><u>CPT CODE:</u></b>	82435
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube. Ordered as part of BMP or CMP.
<b><u>REFERENCE RANGE:</u></b>	98 – 107 mmol/L
<b><u>METHOD:</u></b>	Ion Selective Electrode, indirect
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Decrease in overhydration, chronic respiratory acidosis and congestive heart failure.</li><li>• Increase in dehydration, renal tubular acidosis and excessive infusion of normal saline.</li></ul>
<b><u>LIMITATIONS:</u></b>	<b>Grossly hemolyzed specimens should be rejected for analysis.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

**CHLAMYDIA TROCHOMATIS/NEISSERIA GONORRHEA/ TRICHOMONAS  
VAGINALIS (CT/GC/TV) PCR PANEL**

<b><u>TEST NAMES:</u></b>	<b>Chlam//GC and Chlam/GC/TV</b>
<b><u>CPT CODE:</u></b>	87491/87591/87661
<b><u>SPECIMEN REQUIREMENT:</u></b>	UVE SWAB (Female genitalia) Urine (Male and Female genitalia). See Specimen Collection Guide for details
<b><u>REFERENCE RANGE:</u></b>	negative
<b><u>METHOD:</u></b>	Polymerase Chain Reaction (PCR)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Batched
<b><u>TURNAROUND TIME:</u></b>	2-3 days
<b><u>GENERAL USE OF TEST:</u></b>	Determination of Chlamydia, Gonorrhea and Trichomonas infection in patients with female genitalia. Determination of Chlamydia and Gonorrhea infection in patients with male genitalia.
<b><u>PATIENT PREPARATION:</u></b>	See details in Specimen Collection Guide
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Maintain at refrigerated or room temperature (2 - 30°C)</li><li>• Transport to the laboratory within 2 hours.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Not applicable

## CHOLESTEROL

<b><u>TEST NAME:</u></b>	CHOLESTEROL
<b><u>CPT CODE:</u></b>	82465
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<200 mg/dL
<b><u>METHOD:</u></b>	Enzymatic
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Increase in inherited defect lipoprotein metabolism, endocrine disease, renal disease and decreased liver function impairment.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is preferred.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

**The National Cholesterol Education Program (NCEP) has published reference cholesterol values for cardiovascular risk to be:**

Less than 200 mg/dL	Low risk
201 – 239 mg/dL	Borderline risk
240 mg/dL and greater	High risk

## CHOLESTEROL, HIGH DENSITY

<b><u>TEST NAME:</u></b>	CHOLESTEROL, HIGH DENSITY (HDL)
<b><u>CPT CODE:</u></b>	83718
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL of serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	40 - 60 mg/dL [NCEP guidelines]
<b><u>METHOD:</u></b>	Direct measure-PEG
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Suspected coronary heart disease.
<b><u>LIMITATIONS:</u></b>	<b>Fasting is preferred.</b>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## CHOLESTEROL, LDL

<b><u>TEST NAME:</u></b>	<b>CHOLESTEROL, LDL</b> (Calculated from total cholesterol, triglyceride and HDL cholesterol)
<b><u>CPT CODE:</u></b>	(LDL)
<b><u>SPECIMEN REQUIREMENT:</u></b>	1.0 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<100 mg/dL
<b><u>METHOD:</u></b>	<i>Calculation:</i> LDL Cholesterol = T cholesterol – HDL – Triglyceride/5
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Prediction of risk of coronary arterial atherosclerosis.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is preferred.
<b><u>LIMITATIONS:</u></b>	<b>LDL cannot be accurately calculated on samples that have triglyceride levels greater than 400 mg/dL.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## CLOSTRIDIODES DIFFICILE ANTIGEN AND TOXIN

<b><u>TEST NAME:</u></b>	CLOSTRIDIODES DIFFICILE ANTIGEN AND TOXIN
<b><u>CPT CODE:</u></b>	87324, 87449
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 1.0 gm/ml of fresh unformed fecal specimen collected in a sterile 4 oz. plastic screw top container or in Cary-Blair media.</li><li>• <b>Formed stool will be rejected.</b></li><li>• &gt;1 sample within 7 days is not recommended.</li><li>• Samples will not be accepted for “test of cure”.</li><li>• Samples received within 10 days of an initial positive result will be rejected.</li><li>• Patients must be &gt;2 years of age (infants have a high carriage rate).</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative for C. difficile Antigen and Toxin.
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>GENERAL USE OF TEST:</u></b>	Diagnosis of antibiotic-associated pseudomembranous colitis. <b>Both antigen and toxin are tested and resulted.</b>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>A positive or negative result cannot, on its own, establish the presence of C. difficile disease.</b></li><li>• <b>Assay does not distinguish between viable and nonviable organisms.</b></li><li>• <b>This test detects but does not differentiate the NAP1 strain from other toxigenic strains of C. difficile.</b></li></ul>
<b><u>SPECIMEN COLLECTION:</u></b>	<ul style="list-style-type: none"><li>• Stool material must be submitted. A <b>rectal swab</b> does not provide sufficient material for testing and is <b>not acceptable.</b></li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Specimen may be stored at 2° - 8°C for up to 5 days.

## COMPLETE BLOOD COUNT (CBC)

**TEST NAME:** COMPLETE BLOOD COUNT (CBC)  
(WBC, RBC, Hgb, Hct, MCV, MCH, MCHC, RDW, MPV, PLT, Automated Differential) Manual differential performed when established criteria are met.

**CPT CODE:** 85025

**SPECIMEN REQUIREMENT:**

- 3 mL lavender top tube (EDTA).
- Minimum of 1 mL required **OR** 250 µL lavender microtainer.

**REFERENCE RANGE:** Reference range listed on report.

**CRITICAL VALUES:**

TEST	“low” critical value	“high” critical value
WBC (Newborn)	< 4.0 K/µL	> 30.0 K/µL
WBC (Adult)	< 1.0 K/µL	> 20.0 K/µL
Platelets (Adult)	< 40 K/µL	None
Blasts, Differential	Present	Present
Hemoglobin, (Newborn)	< 9.7 g/dL	> 22.3 g/dL
Hematocrit, (Newborn)	< 29 %	> 67 %
Hemoglobin, (Adult)	< 8.0 g/dL	> 20.0 g/dL
Hematocrit, (Adult)	< 24 %	> 60 %

**METHOD:** Direct current, electrical impedance, light scatter and fluorescence.

**LAB SECTION PERFORMING TEST:** Hematology

**AVAILABILITY:** Daily or STAT

**TURNAROUND TIME:**

- Same shift of collection.
- STAT: 60 minutes.

**GENERAL USE OF TEST:** Evaluation of peripheral blood parameters.

**SPECIMEN REQUIREMENT:**

- Collect specimen using standard lab procedures.
- Gently invert tube several times **immediately** after collection.
- **Do not centrifuge.**

**ADD-ON REQUIREMENTS** Sample must be analyzed within 24 hours of collection when stored at room temperature or within 72 hours when stored at 2° - 8°C.

## COMPREHENSIVE METABOLIC PANEL

<b><u>TEST NAME:</u></b>	COMPREHENSIVE METABOLIC PANEL (Total Protein, Albumin, T. Bilirubin, Ca, Alk Phos, BUN, Creat, AST, Gluc, Na, K, Cl, CO <sub>2</sub> , Anion GAP, eGFR, ALT)
<b><u>CPT CODE:</u></b>	80053
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	See individual tests.
<b><u>CRITICAL VALUES:</u></b>	See individual tests.
<b><u>METHOD:</u></b>	See individual tests.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• If ordered STAT: 60 minutes from receipt in laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of various serum biochemistry constituents.
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Collect specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>



## CONSULTATION, INTRAOPERATIVE

<b><u>TEST NAME:</u></b>	<b>CONSULTATION, INTRAOPERATIVE (Pathology Consultation During Surgery)</b>
<b><u>CPT CODE:</u></b>	88329, 88331, 88332, 88333
<b><u>SPECIMEN REQUIREMENT:</u></b>	Surgical tissue.
<b><u>COLLECTION REQUIREMENT:</u></b>	Fresh tissue.
<b><u>REFERENCE RANGE:</u></b>	Normal tissue.
<b><u>METHOD:</u></b>	Gross and macroscopic examination; consultation.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Anatomic Pathology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>Monday through Friday 8:00 AM to 4:30 PM.</li><li>Notify Pathology Aide 2 weeks prior (257-8371).</li></ul>
<b><u>TURNAROUND TIME:</u></b>	15 – 20 minutes.
<b><u>GENERAL USE OF TEST:</u></b>	To evaluate specimen adequacy; determine course of surgery.
<b><u>ADD-ON REQUIREMENTS</u></b>	Immediately deliver to Anatomic Pathology for Pathologist examination.

## CORD BLOOD EVALUATION

<b><u>TEST NAME:</u></b>	CORD BLOOD EVALUATION
<b><u>CPT CODE:</u></b>	86900 / 86901 / 86880 / 86850
<b><u>SPECIMEN REQUIREMENT:</u></b>	Special blue cap tubes.
<b><u>COLLECTION REQUIREMENT:</u></b>	Baby and mother's name, and identification labels, date of specimen collection on blood sample(s) and initials of individual collecting the blood sample.
<b><u>REFERENCE RANGE:</u></b>	<ul style="list-style-type: none"><li>• Direct Coombs negative.</li></ul>
<b><u>CRITICAL VALUE:</u></b>	Direct Coombs positive.
<b><u>METHOD:</u></b>	Agglutination
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Day shift only, routine testing
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Routine turnaround time is same day testing.</li><li>• To determine ABO or Rh incompatibility between mother and newborn.</li><li>• To identify Hemolytic Disease of the Newborn (HDN). If direct antiglobulin test and/or ABO group mismatch</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	
<b><u>PATIENT PREPARATION:</u></b>	Obtain cord blood samples free of contamination with Wharton's Jelly.
<b><u>LIMITATIONS:</u></b>	<b>If blood sample is grossly contaminated with Wharton's Jelly, the test may be invalid.</b>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 14 days after testing.

## CORTISOL

**TEST NAME:**

CORTISOL

**CPT CODE:**

82533

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

- Morning hours 6-10 a.m.: 6.02 - 18.4 µg/dL
- Afternoon hours 4-8 p.m.: 2.68 - 10.5 µg/dL

**METHOD:**

Electrochemiluminescence immunoassay

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Routine – Same shift
- STAT – 60 minutes

**GENERAL USE OF TEST:**

- Diagnose human diseases which are caused by the overproduction of cortisol in Cushing's syndrome (CS), deficiency of adrenal steroid excretion in Addison's disease, and for therapy monitoring

**LIMITATIONS:**

When performed in serum and plasma, the assay is unaffected by icterus (bilirubin < 1026 µmol/L or < 60 mg/dL), hemolysis (Hb < 1.2 mmol/L or < 1.9 g/dL), lipemia (Intralipid < 2700 mg/dL) and biotin (< 123 nmol/L or < 30 ng/mL).

Samples should not be taken from patients receiving therapy with high biotin doses (i.e. > 5 mg/day) until at least 8 hours following the last biotin administration. Analyte-specific antibodies, streptavidin or ruthenium, may interfere.

The time of sample collection must be taken into account when interpreting results due to the cortisol secretion circadian rhythm. Severe stress can also give rise to elevated cortisol levels.

**ADD-ON REQUIREMENTS**

Samples will be capped and held for 5 days after testing.

## CREATININE

<b><u>TEST NAME:</u></b>	CREATININE
<b><u>CPT CODE:</u></b>	82565
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<i>Male:</i> 0.7 – 1.2 mg/dL <i>Female:</i> 0.5 – 0.9 mg/dL
<b><u>CRITICAL VALUE:</u></b>	>7.4 mg/dL
<b><u>METHOD:</u></b>	Jaffé (Alkaline picrate-kinetic rate blanked, IFCC-IDMS)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Kidney function, shock, dehydration
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## CREATININE, 24-HOUR URINE

<b><u>TEST NAME:</u></b>	CREATININE, 24-HOUR URINE
<b><u>CPT CODE:</u></b>	82570
<b><u>SPECIMEN REQUIREMENT:</u></b>	Total 24-hour urine collection with no preservative in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	24-hour range: Females: 800 – 2800 mg/TV Males: 1000 – 2000 mg/TV
<b><u>METHOD:</u></b>	Jaffé (Alkaline picrate-kinetic rate blanked, IFCC-IDMS)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Renal function.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Precisely timed and completely collected specimen is necessary.</li><li>• No preservative necessary.</li><li>• Refrigerate specimen during collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Refrigerate at 2° - 8°C up to 3 days.

## CREATININE CLEARANCE, 24-HOUR

<b><u>TEST NAME:</u></b>	<b>CREATININE CLEARANCE, 24-HOUR</b> (Includes Serum and Urine Creatinine Measurement)
<b><u>CPT CODE:</u></b>	82575
<b><u>SPECIMEN REQUIREMENT:</u></b>	Total 24-hour urine collection with no preservative in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	<i>Male:</i> 10 – 110 mL/min <i>Female:</i> 70 – 110 mL/min
<b><u>METHOD:</u></b>	Jaffé (Alkaline picrate-kinetic rate blanked, IFCC-IDMS)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Glomerular filtration.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Precisely timed and completely collected specimen is necessary.</b></li><li>• <b>Blood collection should be drawn within 48 hours of stated urine collection.</b></li><li>• <b>No preservative necessary for urine; refrigerate specimen during collection.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect serum creatinine specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Refrigerate at 2° - 8°C up to 3 days.

## CREATINE KINASE

<b><u>TEST NAME:</u></b>	CREATINE KINASE
<b><u>CPT CODE:</u></b>	82550
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females 26 – 192 U/L Males 39 - 308 U/L
<b><u>METHOD:</u></b>	NAC activated
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Myocardial infarction; skeletal muscular disease.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room Temp: 2 days</li><li>• Refrigerated: 7 days</li></ul>

## CROSSMATCH

<b><u>TEST NAME:</u></b>	<b>CROSSMATCH (COMPATIBILITY TESTING)</b>
<b><u>CPT CODE:</u></b>	86922
<b><u>SPECIMEN REQUIREMENT:</u></b>	EDTA vacutainer tube.
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood samples.
<b><u>REFERENCE RANGE:</u></b>	Compatible unit.
<b><u>METHOD:</u></b>	Agglutination.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Day shift for routines.</li><li>• Within 60 minutes for STAT requests.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To determine compatibility of red cell units required for transfusion. Phenotyping of blood units and the patient may need to occur to find compatible units of blood.
<b><u>PATIENT PREPARATION:</u></b>	A patient armband is required to establish positive patient identification.
<b><u>LIMITATIONS:</u></b>	Crossmatched units will only be held for 72 hours.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 14 days after testing.



## CRYSTALS, FLUID

<b><u>TEST NAME:</u></b>	CRYSTALS, FLUID
<b><u>CPT CODE:</u></b>	89060
<b><u>SPECIMEN REQUIREMENT:</u></b>	2 mL fluid transferred to a lavender top tube (EDTA).
<b><u>REFERENCE RANGE:</u></b>	No crystals seen.
<b><u>METHOD:</u></b>	Polarization Microscopy
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Pathology consultation
<b><u>AVAILABILITY:</u></b>	M – F 8:30 – 3:30 pm
<b><u>TURNAROUND TIME:</u></b>	Daily on weekdays.
<b><u>GENERAL USE OF TEST:</u></b>	Identification of monosodium urate and calcium pyrophosphate crystals.

## CULTURE, BODY, FLUID

<b><u>TEST NAME:</u></b>	CULTURE, BODY FLUID
<b><u>CPT CODE:</u></b>	87075/ 87206
<b><u>SPECIMEN REQUIREMENT:</u></b>	Aseptically obtained body fluid submitted in anaerobic transport tube, anaerobic blood culture bottle or capped syringe.
<b><u>REFERENCE RANGE:</u></b>	Negative for aerobic and anaerobic bacteria.
<b><u>METHOD:</u></b>	Classical culture; ID by biochemical strip.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No limitations.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• 48 hours for preliminary negative results</li><li>• Five days for final negative results.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To identify infections in body cavities or bursa fluid suspected of harboring anaerobic bacteria.
<b><u>PATIENT PREPARATION:</u></b>	Standard sterile prep of aspiration site.
<b><u>SPECIMEN PREPARATION:</u></b>	Specimen may be collected by drainage tube or by syringe aspiration.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Place in sterile cup immediately after collection.</li><li>• Receipt in the lab within 1 hour of collection is preferable.</li><li>• Maximum allowable transport is 72 hours with 2° - 8°C maintained if testing will be delayed beyond 24 hours (or room temperature if in blood culture bottle).</li></ul>

## CULTURE, ANAEROBIC, MISCELLANEOUS

<b><u>TEST NAME:</u></b>	CULTURE, ANAEROBIC, MISCELLANEOUS
<b><u>CPT CODE:</u></b>	87075
<b><u>SPECIMEN REQUIREMENT:</u></b>	Swab or tissue taken from affected area submitted in anaerobic transport tube.
<b><u>REFERENCE RANGE:</u></b>	Subject to interpretation.
<b><u>METHOD:</u></b>	Classical culture; ID by biochemical strip.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No limitations.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• 48 hours for preliminary negative results.</li><li>• 72 hours for final negative results.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To identify infection of abscess or inflamed lesion suspected of anaerobic colonization.
<b><u>PATIENT PREPARATION:</u></b>	Avoid contamination from surrounding tissue.
<b><u>LIMITATIONS:</u></b>	<b>Aeration of specimen.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Specimen may be collected on a sterile swab or by surgical biopsy depending on site of lesion.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Place E-swab in transport media immediately after collection.</li><li>• Receipt in the lab within 1 hour of collection is preferable.</li><li>• Maximum allowable transport is 72 hours with 2° - 8°C maintained if testing will be delayed beyond 24 hours (or room temperature if in blood culture bottle).</li></ul>

## CULTURE, BLOOD ROUTINE (ADULT)

<b><u>TEST NAME:</u></b>	CULTURE, BLOOD ROUTINE (ADULT)
<b><u>CPT CODE:</u></b>	87040
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• A blood culture set consists of 2 bottles from one site – one bottle for the aerobic culture and another bottle for the anaerobic culture.</li></ul>
<b><u>PATIENT/SITE PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Aseptic venipuncture procedure.</li><li>• Follow phlebotomy procedure</li></ul>
<b><u>LABELING:</u></b>	<ul style="list-style-type: none"><li>• Follow Phlebotomy Procedure</li></ul>
<b><u>REFERENCE RANGE:</u></b>	No growth.
<b><u>CRITICAL VALUE:</u></b>	<ul style="list-style-type: none"><li>• Positive</li></ul>
<b><u>METHOD:</u></b>	CO <sub>2</sub> detection; Bactec 9240.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restrictions.
<b><u>TURNAROUND TIME:</u></b>	Five days for negative bacterial findings.
<b><u>GENERAL USE OF TEST:</u></b>	Clinical symptoms and signs consistent with possible sepsis. Identification of bacteria from blood. Antimicrobial sensitivity studies of most bacterial isolates.
<b><u>PATIENT PREPARATION:</u></b>	Cleanse venipuncture site with alcohol followed by iodine on children less than 2 months of age. Allow iodine to sit on skin 1-2 minutes prior to venipuncture. Do not palpate vein after skin preparation.
<b><u>LIMITATIONS:</u></b>	Systemic antimicrobial therapy.
<b><u>STORAGE REQUIREMENTS:</u></b>	Transport to Laboratory ASAP Do not refrigerate.

## CULTURE, BLOOD (PEDIATRIC)

<b><u>TEST NAME:</u></b>	CULTURE, BLOOD (PEDIATRIC)
<b><u>CPT CODE:</u></b>	87040
<b><u>SPECIMEN REQUIREMENT:</u></b>	Blood – 0.5 to 3.0 mL Place blood directly into Bactec PedsPlus Bottle. No fungal cultures on Bactec Bottle – contact Laboratory for special tubes.
<b><u>REFERENCE RANGE:</u></b>	No growth.
<b><u>CRITICAL VALUE:</u></b>	Positive
<b><u>METHOD:</u></b>	CO2 detection, Bactec 9240.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restrictions.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Five days for negative bacterial findings.</li><li>• Three weeks for negative fungal findings.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Clinical symptoms and signs consistent with possible sepsis.</li><li>• Identification of bacteria from blood.</li><li>• Antimicrobial sensitivity studies of most bacterial isolates.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Cleanse venipuncture site with alcohol followed by iodine on children less than 2 months of age.</li><li>• Allow iodine to sit on skin 1-2 minutes prior to venipuncture.</li><li>• Do not palpate vein after skin preparation.</li></ul>
<b><u>LIMITATIONS:</u></b>	<b>Systemic antimicrobial therapy.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Aseptic venipuncture procedure.
<b><u>STORAGE REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Transport to laboratory ASAP.</li><li>• <b>Do not refrigerate.</b></li></ul>

## CULTURE, FUNGUS, BODY FLUIDS

<b><u>TEST NAME:</u></b>	<b>CULTURE, FUNGUS BODY FLUIDS</b>
<b><u>CPT CODE:</u></b>	87102
<b><u>SPECIMEN REQUIREMENT:</u></b>	Body fluids placed in a sterile 4 oz. plastic screw-top container, syringe with needle removed, tube or bottle.
<b><u>REFERENCE RANGE:</u></b>	Negative for fungal growth.
<b><u>METHOD:</u></b>	Classical culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Day shift Monday – Sunday.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• <i>Culture</i>: 4 weeks for negative report.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Establish presence of viable fungus in body fluids.
<b><u>PATIENT PREPARATION:</u></b>	Standard sterile prep of aspiration site.
<b><u>LIMITATIONS:</u></b>	<b>A single negative culture does not rule out the presence of fungal infection.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	May be aspirated by syringe or drained by tube into a sterile container.
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 8°C until tested.

## CULTURE, ROUTINE BRONCHIAL OR TRACHEAL ASPIRATES

<b><u>TEST NAME:</u></b>	<b>CULTURE, ROUTINE BRONCHIAL OR TRACHEAL ASPIRATES</b>
<b><u>CPT CODE:</u></b>	87070
<b><u>SPECIMEN REQUIREMENT:</u></b>	Transtracheal aspiration or bronchoscopy specimen without preservation (2 mL preferred but any quantity will be acceptable) submitted in sterile transtracheal tube or sterile bronchoscopy tube.
<b><u>REFERENCE RANGE:</u></b>	No growth or normal respiratory flora.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restriction.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary reports are issued at 24 hours.</li><li>• Cultures with normal flora or no growth are reported after 72 hours.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Diagnosis of respiratory infection.</li><li>• Isolation, identification and susceptibility testing of significant isolates.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	Standard preparation by physician.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Susceptibility testing will be performed only if relevant.</b></li><li>• <b>If anaerobes are suspected, please submit a transtracheal aspiration specimen using anaerobic transport tube. Transtracheal aspiration is the specimen of choice and the only specimen acceptable for anaerobic culture of the respiratory tract.</b></li><li>• <b>Prior antimicrobial therapy can result in negative findings.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen collected by physician.</li><li>• Specimen must be transported to the laboratory within 6 hours of collection if not refrigerated.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 8°C until tested.

## CULTURE – ROUTINE, CATHETER TIP

<b><u>TEST NAME:</u></b>	<b>CULTURE, ROUTINE CATHETER TIP</b>
<b><u>CPT CODE:</u></b>	87070
<b><u>SPECIMEN REQUIREMENT:</u></b>	Catheter tip segment, approximately 2 inches long, submitted in a sterile container.
<b><u>REFERENCE RANGE:</u></b>	No growth.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restriction.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Culture plates read daily.</li><li>• Negative reported at 72 hours.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Assess the microbiological status of the IV site and distinguish true infection from colonization in cases of potential line-related bacteremia.
<b><u>PATIENT PREPARATION:</u></b>	Standard nursing prep for IV line.
<b><u>LIMITATIONS:</u></b>	<b>Contamination of the tip during removal can affect results.</b>
<b><u>STORAGE REQUIREMENTS</u></b>	Transport to laboratory within 1 hour or refrigerate at 2° - 8°C.



## CULTURE – ROUTINE, CEREBROSPINAL FLUID

<b><u>TEST NAME:</u></b>	<b>CULTURE, ROUTINE CEREBROSPINAL FLUID (CSF)</b>
<b><u>CPT CODE:</u></b>	87070 / 87205
<b><u>SPECIMEN REQUIREMENT:</u></b>	Cerebrospinal fluid (2.0 mL preferred, but any quantity will be acceptable) submitted in sterile tube (disposable spinal tap tray is available from Central Service).
<b><u>REFERENCE RANGE:</u></b>	No growth.
<b><u>CRITICAL VALUE:</u></b>	Positive culture.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• No restrictions.</li><li>• Gram stain performed STAT in all cases.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• <i>Stain</i>: Available within 24 hours.</li><li>• <i>Culture</i>: Preliminary report issued at 24 hours and 48 hours; cultures with no growth are reported after 72 hours; reports of cultures from which pathogens are isolated require a minimum of 72 hours for completion.</li><li>• Positive gram stain / culture will be reported verbally immediately upon recognition.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Determine bacterial agent of CNS infection.</li><li>• Gram stain, isolation, identification and susceptibility testing of bacteria from cerebrospinal fluid.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	Standard preparation of the aspiration site by physician.
<b><u>LIMITATIONS:</u></b>	<b>Prior antimicrobial therapy can result in negative findings.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen collected by physician.</li><li>• Specimen must be transported to the laboratory ASAP.</li><li>• Contamination with normal flora from skin or other body surfaces should be avoided.</li><li>• Specimen must not be refrigerated.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Transport to the laboratory ASAP; do not refrigerate.

## CULTURE – REPRODUCTIVE (2Pages)

**TEST NAME:** CULTURE, ROUTINE, GENITAL SITES

**CPT CODE:** 87070

**SPECIMEN REQUIREMENT:** Culturette swab or 1 mL fluid of genital area, prostatic secretions, etc., fluid aspiration, tissue any quantity submitted in:

**REFERENCE RANGE:** No growth, normal vaginal flora, normal skin flora.

**METHOD:** Classical Culture, see limitations below.

**LAB SECTION PERFORMING TEST:** Microbiology

**AVAILABILITY:** No restrictions.

**TURNAROUND TIME:**

- Preliminary report issued at 24 hours; cultures with no growth or with normal flora for the site are reported after 48 hours.
- No  $\beta$ -Strep is reported at 72 hours (pregnant females only).

**GENERAL USE OF TEST:**

- Determine bacterial agent of genital tract infection.
- Isolation, identification and susceptibility testing of significant isolates.
- Refer to Vaginosis Pathogens by DNA Probe for common causes of vaginosis.

**LIMITATIONS:**

- **Recommended test method for vaginosis is Wet Prep. Routine vaginal culture orders will be converted to Gram stain unless specific information is provided to justify the full culture. Results will be in standard graded form with vaginosis likelihood noted.**
- **Rapidly growing aerobic organisms that predominate may mask the presence or prevent the growth of slower growing pathogenic types.**
- **Susceptibility testing will be performed if relevant.**
- **Neisseria gonorrhoeae requires special handling.**
- **Please refer to the appropriate procedure in this guide. Anaerobic cultures on these specimens are not indicated unless specimen is obtained by needle aspiration of a thoroughly decontaminated closed site (abscess, cavity, etc.).**

**TEST NAME:**

**CULTURE, REPRODUCTIVE**

**LIMITATIONS CONT:**

- **Prior antimicrobial therapy can result in negative findings.**

**SPECIMEN PREPARATION:**

- Aseptic technique.
- Specimen must be transported to the laboratory within 6 hours of collection if not refrigerated.

**STRAGE REQUIREMENTS**

Store at 2° - 8°C if testing will be delayed beyond 24 hours.

## CULTURE – ROUTINE, MISCELLANEOUS SITES (2Pages)

<b><u>TEST NAME:</u></b>	CULTURE, ROUTINE, WOUND
<b><u>CPT CODE:</u></b>	87070
<b><u>SPECIMEN REQUIREMENT:</u></b>	2 mL or small piece of surgical tissue, biopsy material or swab submitted in a sterile 4 oz. plastic screw-top container or culturette. Moisten tissue sample with sterile saline.
<b><u>REFERENCE RANGE:</u></b>	No growth or normal flora.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• No restrictions.</li><li>• Tissue specimens that require grinding are processed day shift; Monday – Sunday.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary report issued at 24 hours; cultures with no growth or with normal flora are reported after 48 hours.</li><li>• Reports on specimens from which pathogens are isolated require a minimum of 48 hours for completion.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Determine bacterial agent of infection.</li><li>• Isolation, identification and susceptibility testing of significant isolates.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	Sterile preparation of the aspiration or biopsy site by physician.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Only fast growing non-fastidious aerobic organisms are screened for and identified. Susceptibility testing will be performed, if relevant.</b></li><li>• <b>If anaerobes are suspected, please submit properly collected specimen in anaerobic transport tube.</b></li><li>• <b>Prior antimicrobial therapy can result in negative findings.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen must be transported to the laboratory within 6 hours of collection if not refrigerated.</li><li>• Contamination with normal flora from skin, rectum, vaginal tract or other body surfaces must be avoided.</li></ul>

**TEST NAME:**

**CULTURE, ROUTINE, MISCELLANEOUS SITES**

**SPECIMEN PREPARATION CONT:**

- Tissue/biopsy material must be kept moist by the addition of sterile saline.

**STORAGE REQUIREMENTS**

Store at 2° - 8°C if testing will be delayed beyond 24 hours.

## CULTURE, ROUTINE SPUTUM (2 Pages)

<b><u>TEST NAME:</u></b>	CULTURE, ROUTINE SPUTUM
<b><u>CPT CODE:</u></b>	87070
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 2 mL (minimum) sputum, first morning preferred. However, any single random specimen may be submitted.</li><li>• Only one acceptable quality specimen per day for three consecutive days will be processed.</li><li>• Submit in sterile 4 oz. plastic container.</li><li>• Small number of epithelial cells</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Normal upper respiratory flora.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restriction.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary reports are issued at 24 hours.</li><li>• Cultures with no growth or normal flora are reported after 48 hours.</li><li>• Reports on specimens from which pathogens are isolated require at least 48 hours for completion.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Diagnosis of bacterial respiratory infections.</li><li>• Identification and susceptibility testing of significant isolates.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	The patient should be instructed to remove dentures, rinse mouth and gargle with water.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>All fast growing, non-fastidious pathogenic aerobic organisms in quantities greater than “rare” will be identified. Susceptibility testing will be performed, if relevant.</b></li><li>• <b>Specimens received on patients who are unable to produce sputum truly representing the lower respiratory tract.</b></li><li>• <b>Prior antimicrobial therapy.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Patient should be instructed to cough deeply and expectorate sputum into container.</li><li>• Specimen must be transported to laboratory within 1 hour of collection if not refrigerated.</li></ul>

**TEST NAME:**

**CULTURE, ROUTINE SPUTUM**

**STORAGE REQUIREMENTS**

Store at 2° - 8°C until tested.

## CULTURE – ROUTINE THROAT

<b><u>TEST NAME:</u></b>	CULTURE, ROUTINE THROAT
<b><u>CPT CODE:</u></b>	87060
<b><u>SPECIMEN REQUIREMENT:</u></b>	Throat 1 swab; submitted in a sterile culturette.
<b><u>REFERENCE RANGE:</u></b>	Normal throat flora.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restrictions.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary reports are issued at 24 hours.</li><li>• Cultures with no growth or normal flora are reported after 48 hours.</li><li>• Group A beta Strep may be detected at 24 or 48 hours.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Diagnosis of carrier state of Group A beta Strep or pharyngitis.</li><li>• Isolation and identification of Group A beta hemolytic Strep. <u>H. influenzae</u>, <u>C. albicans</u> and predominating quantities of other potential pathogens will be noted if present.</li><li>• Susceptibility testing is not routinely performed on any isolate.</li></ul>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Presence or absence of normal throat flora will be reported.</b></li><li>• <b>If isolation of <u>N. gonorrhoeae</u> is required, see Culture, Special for <u>Neisseria gonorrhoeae</u>.</b></li><li>• <b>Prior antimicrobial therapy can result in negative findings.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Use a tongue depressor and, with the culturette swab, firmly swab both tonsillar areas and the posterior pharynx.</li><li>• Specimens must be transported to the laboratory within 6 hours of collection if not refrigerated.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 8°C if testing will be delayed beyond 24 hours.



## CULTURE, ROUTINE URINE (2 pages)

<b><u>TEST NAME:</u></b>	CULTURE, ROUTINE URINE (2 pages)
<b><u>CPT CODE:</u></b>	87086
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL (minimum) urine submitted in a sterile 4 oz. urine container, <b>OR</b> 5 mL (minimum) urine in a sterile culture preservative tube.
<b><u>REFERENCE RANGE:</u></b>	<ul style="list-style-type: none"><li>• No growth.</li><li>• Growth levels are subject to interpretation dependent upon actual level, number of bacterial types and mode of specimen required &gt;100,000/cc of a single organism is generally significant.</li></ul>
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No submission restriction.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary reports available at 24 hours.</li><li>• Cultures with no growth will be reported after 48 hours.</li><li>• Reports on specimens from which an organism has been isolated require 48 hours for completion.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Diagnosis of urinary tract infections.</li><li>• Quantitation, identification and susceptibility testing of significant aerobic bacterial isolates.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	Contamination with skin flora must be avoided.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Anaerobic organisms will not be isolated.</b></li><li>• <b>Workup of organisms is dependent on colony count, number and type of organisms in the specimen and the collection method.</b></li><li>• <b>Prior antimicrobial therapy can result in negative findings.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Deliver to the laboratory within 2 hours of collection if not refrigerated; within 24 hours of collection if refrigerated.</li></ul>

**TEST NAME:**

**CULTURE, ROUTINE URINE**

**SPECIMEN PREPARATION CONT:**

- Clean catch, mid-void, catheterized and suprapubic puncture specimens are to be collected as per Nursing Procedure Manual.
- Collection method **must** be indicated on the requisition.

**STORAGE REQUIREMENTS**

Store at 2° - 8°C until tested 24 hours; 48 hours at room temperature if in urine culture transport tube.

## CULTURE – SPECIAL, MRSA

<b><u>TEST NAME:</u></b>	CULTURE, SPECIAL MRSA
<b><u>CPT CODE:</u></b>	87081
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Inpatient/ED Nares – MRSA only.</li><li>• Pre-Op Nares – MRSA and MSSA</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative for MRSA.
<b><u>METHOD:</u></b>	Classical Culture (Selective Chromogenic Agar)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• No restrictions on collection or processing.</li><li>• Please note limitations below.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Final report available in 24 hours.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Isolation, identification of the presence of methicillin resistant <u>Staphylococcus aureus</u> .
<b><u>PATIENT PREPARATION:</u></b>	Avoid contamination from surrounding tissue.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Cultures will be screened for MRSA only. No other pathogens will be reported.</b></li><li>• <b>Cultures for MRSA screening should only be ordered in conjunction with Infection Control guidelines for nosocomial control of this organism.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• <u>Nasal</u>: swab both nares.</li><li>• Submit specimens to laboratory within 6 hours of collection if unrefrigerated.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 8°C until tested.

**CULTURE – SPECIAL, THROAT FOR BETA HEMOLYTIC STREPTOCOCCI  
(GROUP A)**

<b><u>TEST NAME:</u></b>	<b>CULTURE, SPECIAL, THROAT FOR BETA HEMOLYTIC STREPTOCOCCI (Group A)</b>
<b><u>CPT CODE:</u></b>	87081
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 swab, throat, submitted in a sterile culturette.
<b><u>REFERENCE RANGE:</u></b>	Negative for beta hemolytic streptococci.
<b><u>METHOD:</u></b>	Classical Culture.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	No restrictions.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Preliminary reports available at 24 hours.</li><li>• Cultures with no beta streptococci will be reported after 48 hours.</li><li>• Reports on specimens from which beta streptococci Group A has been isolated may require 48 hours for completion.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Rule out beta streptococci Group A as a causative agent of pharyngitis.</li><li>• Isolation and presumptive identification of Group A beta hemolytic streptococci.</li></ul>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Culture will be screened for beta streptococci Group A only and predominant growth of other Beta Strep.</b></li><li>• <b>Recent use of antibacterial mouth wash.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Use a tongue depressor and, with the culturette swab, firmly swab both tonsillar areas and the posterior pharynx.</li><li>• The specimen must be transported to the laboratory within 6 hours of collection if not refrigerated.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 8°C if testing will be delayed beyond 24 hours.

## VAGINAL/RECTAL SPECIMENS FOR GROUP B BETA STREP PCR

<b><u>TEST NAME:</u></b>	PRENATAL STREP B PCR
<b><u>CPT CODE:</u></b>	87653
<b><u>SPECIMEN REQUIREMENT:</u></b>	Moist swabs of vaginal and rectal sites submitted together.
<b><u>REFERENCE RANGE:</u></b>	Negative.
<b><u>METHOD:</u></b>	Polymerase Chain Reaction (PCR)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	PCR Laboratory
<b><u>AVAILABILITY:</u></b>	No restrictions.
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• 48 hours</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Monitor carrier state of child-bearing females for Group B beta strep.
<b><u>LIMITATIONS:</u></b>	Performance of the BD MAX GBS assay was established with vaginal- rectal specimens collected from antepartum women using swabs in non-nutritive transport medium (e.g. Amies or Stuart) and enriched in Lim Broth. Use of the BD MAX GBS assay for clinical specimen types other than those specified has not been evaluated and performance characteristics are not established. (BD).
<b><u>SPECIMEN PREPARATION:</u></b>	The specimen must be transported to the laboratory day of collection and kept between 2 – 30 °C.
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 2° - 30°C.

## D-DIMER

**TEST NAME:**

D-DIMER

**CPT CODE:**

85379

**SPECIMEN REQUIREMENT:**

Plasma from one full blue top tube (sodium citrate).

**REFERENCE RANGE:**

<0.5 µg/mL FEU.

**METHOD:**

High sensitivity latex agglutination.

**LAB SECTION PERFORMING TEST:**

Hematology

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- STAT specimens will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Elevated levels are seen in conditions such as pulmonary embolism and deep vein thrombosis.

**ADD-ON REQUIREMENTS**

Samples will be capped and held for 3 days after testing.

## DIGOXIN (LANOXIN)

<b><u>TEST NAME:</u></b>	DIGOXIN (LANOXIN)
<b><u>CPT CODE:</u></b>	80162
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	0.8 – 2.0 ng/mL
<b><u>CRITICAL VALUE:</u></b>	>2.5 ng/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Diagnosis of digoxin toxicity or insufficient dosage.
<b><u>LIMITATIONS:</u></b>	<b>Specimen collected from patient on Dig-A-Bind.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 24 hours after testing.</li></ul>

## DIRECT ANTIGLOBULIN (DIRECT COOMBS) TEST

<b><u>TEST NAME:</u></b>	DIRECT ANTIGLOBULIN (Direct Coombs) TEST
<b><u>CPT CODE:</u></b>	86880
<b><u>SPECIMEN REQUIREMENT:</u></b>	EDTA vacutainer tube
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood sample.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>CRITICAL VALUE:</u></b>	Positive test detected on cord blood or recently transfused patient.
<b><u>METHOD:</u></b>	Agglutination using polyspecific antihuman globulin and/or anti-IgG and anti-C3 monospecific reagents.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• <i>Routine:</i> Same shift testing</li><li>• <i>STAT:</i> 60 minutes</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• For the detection of antibody bound in vivo to the patient's red cells.</li><li>• An eluate and/or antibody identification techniques may be required to find the source of a positive direct antiglobulin test.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 14 days after testing.



## DRUGS OF ABUSE IN URINE - MEDICAL EVALUATION ONLY

**TEST NAME:**

**DRUGS OF ABUSE IN URINE  
(Medical Evaluation Only)**

Urine Screen (Qualitative) for:

	Lowest Detectable Concentrations
PCP	Phencyclidine 25 ng/mL
BZO	Benzodiazepines 150 ng/mL
BUP	Bupenorprhine 10 ng/mL
COC	Cocaine 150 ng/mL
AMP	Amphetamines 500 ng/mL
THC	Tetrahydrocannabinol 50 ng/mL
OPI	Opiates 100 ng/mL
BAR	Barbiturates 200 ng/mL
MTHD	Methadone 200 ng/mL
MET	Methamphetamine 500 ng/mL
OXCD	Oxycodone 100 ng/mL
TCA	Tricyclics 300 ng/mL
FENT	Fentanyl 1 ng/mL

**CPT CODE:**

80307

**SPECIMEN REQUIREMENT:**

10 mL of freshly voided urine.

**REFERENCE RANGE:**

Negative

**METHOD:**

Immunoassay

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

- Daily
- Use of this test is limited to medical evaluations of patients.

**TURNAROUND TIME:**

- Same shift testing.
- STAT specimens will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

This test provides **only** a preliminary test result for the qualitative detection of the major metabolites of the noted drugs of abuse stated above.

**NOTE:** A more specific alternate chemical method **must** be used in order to obtain a confirmed quantitative result via a Reference Laboratory.

**LIMITATIONS:**

- **Additional substances in the urine sample may interfere with the test and cause erroneous results.**

**ADD-ON REQUIREMENTS**

Samples will be capped and held for 7 days after testing.

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## ELECTROLYTES, BLOOD

**TEST NAME:** ELECTROLYTES, BLOOD  
(Sodium, Potassium, Chloride & Carbon Dioxide)

**CPT CODE:** 80051

**SPECIMEN REQUIREMENT:** 0.5 mL serum from a 5 mL serum separator tube.

**REFERENCE RANGE:**

Na:	137 – 145 mmol/L
K:	3.5 – 5.1 mmol/L
Cl	98 – 107 mmol/L
CO <sub>2</sub>	22 – 29 mmol/L
AGAP	10 – 18 mmol/L

**CRITICAL VALUE:**

Na	= <125 or >160 mmol/L
K	= <3.0 or >6.0 mmol/L
CO <sub>2</sub>	= <15 or >40 mmol/L

**METHOD:** Ion Selective Electrode, indirect

**LAB SECTION PERFORMING TEST:** Chemistry

**AVAILABILITY:** Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- STAT specimens will be resultd within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:** Electrolyte balance

**LIMITATIONS:** Hemolyzed specimens elevate potassium levels.

**SPECIMEN PREPARATION:**

- Collect specimens using standard lab procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS** Samples will be capped and held for 7 days after testing.

## ENTERIC BACTERIAL PATHOGEN PANEL

<b><u>TEST NAME:</u></b>	<b>ENTERIC BACTERIAL PANEL STOOL FOR ENTERIC PATHOGENS</b>
<b><u>CPT CODE:</u></b>	87045
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 2 grams (or 2 mL) minimum fresh random stool best for Salmonella, swab of rectal mucosa is preferred for Shigella. Swab of stool is not acceptable.</li><li>• The laboratory will process up to 3 specimens per patient.</li><li>• Submit stool in Cary Blair medium.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative for Shigella, ETEC, Shigatoxin, Campylobacter species and Salmonella species
<b><u>METHOD:</u></b>	Polymerase Chain Reaction (PCR)
<b><u>LAB SECTION PERFORMING</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Consult Pathologist and Infection Control for enteric pathogen request on patients with diarrheal onset >3 days post admission.
<b><u>TURNAROUND TIME:</u></b>	24 – 48 hours.
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Diagnosis of bacteria enteritis.</li></ul>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Specimen will be routinely screened for Salmonella, Shigella and E. coli 0157.</b></li><li>• <b>Excessive delay in processing and prior anti- microbial therapy can result in negative findings.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen must be less than 24 hours old if unrefrigerated and in Cary Blair medium if stool (<b>swab of stool is unacceptable</b>).</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at 25° for 24 hours until tested. Specimens in Cary Blair medium can be stored at room temperature or at 2-8 degrees Celsius up to 5 days.

## ERYTHROCYTE SEDIMENTATION RATE (ESR)

<b><u>TEST NAME:</u></b>	Erythrocyte Sedimentation Rate (ESR)
<b><u>CPT CODE:</u></b>	85652
<b><u>SPECIMEN REQUIREMENT:</u></b>	1.0 mL from a 5 mL EDTA tube.
<b><u>REFERENCE RANGE:</u></b>	<i>Female &lt; 20 mm/hr</i> <i>Male &lt; 15 mm/hr</i>
<b><u>METHOD:</u></b>	Westergren
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To assess acute tissue damage, chronic inflammation of chronic infection.
<b><u>LIMITATIONS:</u></b>	<b>Anemias and paraproteinemias invalidate results. Reportable range 0 – 120 mm/hr. Results higher than 120 mm/hr will be reported as &gt;120 mm/hr.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Gently invert tube six times <b>immediately</b> after collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Specimens must be tested within 8 hours of collection if stored at room temperature and within 12 hours if stored in a refrigerator.</li></ul>

## ESTRADIOL

<b><u>TEST NAME:</u></b>	ESTRADIOL
<b><u>CPT CODE:</u></b>	82670
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Male: 26 to 61 pg/mL Non-pregnant females: Follicular: 12-233 pg/mL Ovulation: 41-398 pg/mL Luteal: 22-341 pg/mL Postmenopausal: <5 -138 pg/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Used to assess gonadal dysfunction including delayed puberty, amenorrhea and menopause.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room temperature: 12 hours</li><li>• Refrigerated: 2 days.</li></ul>

## ETHANOL

**TEST NAME:**

**ETHANOL (ALCOHOL)  
(Medical Evaluation Only)**

**CPT CODE:**

80320

**SPECIMEN REQUIREMENT:**

0.5 mL plasma from a 5 mL serum tube.

**REFERENCE RANGE:**

None detected.

**METHOD:**

Enzymatic

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

- Daily.
- Has STAT capability for ED and Inpatients only.

**TURNAROUND TIME:**

- Same shift testing.
- STAT specimens will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Quantitative measurement of ethanol.

**PATIENT PREPARATION:**

*Venipuncture:* Do not use alcohol prep or any other volatile disinfectants to cleanse draw site.

**SPECIMEN PREPARATION:**

- Deliver tightly stopped tube to laboratory.
- Centrifuge specimens; remove serum/plasma from cells within 2 hours of collection.
- **Assay immediately after opening the sample tube.**

**STORAGE REQUIREMENTS:**

Room Temp: 2 days  
Refrigerated: 7 days

## FECAL IMMUNOCHEMICAL TEST

<b><u>TEST NAME:</u></b>	IMMUNOCHEMICAL FECAL OCCULT BLOOD (FIT)
<b><u>CPT CODE:</u></b>	82274
<b><u>SPECIMEN REQUIREMENT:</u></b>	Stool dried on FIT card
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Immunochemical Chromatography
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Screen for lower gastrointestinal pathologies such as colorectal cancers and large adenomas that bleed.</li></ul>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Intermittently bleeding lesions and non-uniformity of distribution of blood in feces.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Dried specimen. Patient does not need dietary restrictions.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Not applicable.</li></ul>

## FERRITIN

**TEST NAME:**

FERRITIN

**CPT CODE:**

82728 (FERR)

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

Females (17 – 60 yrs) 13 – 150 ng/mL

Males (20 – 60 yrs) 30 – 400 ng/mL

**METHOD:**

Electrochemiluminescence

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily

**TURNAROUND TIME:**

Same shift testing.

**GENERAL USE OF TEST:**

- Depletion of iron stores (anemia).
- Also aids in diagnosis of diseases affecting iron metabolism (hemochromatosis).

**LIMITATIONS:**

- **Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.**

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Room temperature: 24 hours
- Refrigerated: 7 days.



## FETAL BLEED SCREEN

<b><u>TEST NAME:</u></b>	FETAL BLEED SCREEN
<b><u>CPT CODE:</u></b>	85461
<b><u>SPECIMEN REQUIREMENT:</u></b>	EDTA vacutainer tube
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood sample.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Immune rosetting
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	Test performed with post-partum Rhogam,
<b><u>TURNAROUND TIME:</u></b>	24 hours
<b><u>GENERAL USE OF TEST:</u></b>	<p>Variable amounts of fetal blood enter the maternal circulation at time of delivery.</p> <p>In order to assure that a sufficient dose of Rh immune globulin is administered to D negative mothers who deliver D positive babies, this screening test is performed.</p>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>This test can be performed ONLY on Rh negative women.</b></li><li>• <b>Results from Weak D positive women will be falsely positive.</b></li><li>• <b>A positive screening test needs to be followed up with a Kleihauer-Betke test to determine the amount of Rh immune globulin to be administered.</b></li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing.</li></ul>

## FETAL FIBRONECTIN

<b><u>TEST NAME:</u></b>	FETAL FIBRONECTIN
<b><u>CPT CODE:</u></b>	82731 (FFIB)
<b><u>SPECIMEN REQUIREMENT:</u></b>	Specimen collected from the posterior fornix of the vagina using the Adeza Biomedical Specimen Collection Kit.
<b><u>REFERENCE RANGE:</u></b>	N/A
<b><u>METHOD:</u></b>	Lateral flow, solid phase immunochromatographic assay.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	Same shift of collection or 60 minutes if STAT.
<b><u>GENERAL USE OF TEST:</u></b>	Detection of fetal fibronectin as an aid in assessing the risk of pre-term delivery.
<b><u>SPECIMEN COLLECTION:</u></b>	After collection, submerge the tip of the applicator swab in the tube of buffer, break the shaft even with the top of the tube, cap and push down tightly to secure the top.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Grossly bloody samples will be rejected.</b></li><li>• <b>A positive result may be observed for patients with cervical disruptions caused by, but not limited to, events such as sexual intercourse, digital cervical examination or vaginal probe ultrasound.</b></li><li>• <b>Results of this test should be used in conjunction with information from the clinical evaluation and other diagnostic procedures.</b></li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	If not tested within 8 hours, refrigerate at 2° - 8°C within 3 days of collection or frozen with 3 months of collection.

## FIBRINOGEN

<b><u>TEST NAME:</u></b>	<b>FIBRINOGEN</b>
<b><u>CPT CODE:</u></b>	85384 (FIBR)
<b><u>SPECIMEN REQUIREMENT:</u></b>	Plasma from one full blue top tube (sodium citrate).
<b><u>REFERENCE RANGE:</u></b>	200 – 400 mg/dL
<b><u>METHOD:</u></b>	Photometric detection.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	60 minutes
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Fibrinogen is an acute phase reactant as well as the focal point in the coagulation process.</li><li>• Consumption of fibrinogen is a major and clinically threatening aspect of disseminated intravascular coagulation.</li></ul>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Hemolysis, icteric or lipemic specimens.</b></li><li>• <b>Incomplete filling of vacutainer tube.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Mix immediately after drawing.</li><li>• Centrifuge at 2500g for 10 minutes.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 3 days after testing.

## FOLIC ACID

<b><u>TEST NAME:</u></b>	FOLIC ACID
<b><u>CPT CODE:</u></b>	82746
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL serum from 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females: 4.8 – 37.3 ng/mL Males: 4.5 – 32.2 ng/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Folate is an essential vitamin vital to cell growth and DNA synthesis. Folate deficiency can lead to megaloblastic anemia followed by severe neurological problems.
<b><u>PATIENT PREPARATION:</u></b>	Fasting preferred.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Patient's true folate status may be masked by whole blood transfusions.</li><li>• Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</li></ul>
<b><u>INTERFERENCE:</u></b>	Hemolysis
<b><u>SPECIMEN PREPARATION:</u></b>	Centrifuge and separate serum/plasma from cells immediately after collection.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room temperature: 2 hours</li><li>• Refrigerated: 2 days.</li></ul>

## FOLLICLE STIMULATING HORMONE

<b><u>TEST NAME:</u></b>	FOLLICLE STIMULATING HORMONE
<b><u>CPT CODE:</u></b>	83001
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<u>FSH (mIU/mL)</u> <i>Adult Male (19-65):</i> 1.5 – 12.4 mIU/mL <i>Adult Female:</i> Normal Follicular 3.5 – 12.5 mIU/mL Norm Pre-Ovulatory Peak 4.7 – 21.5 mIU/mL Normal Luteal 1.7 – 7.7 mIU/mL Post Menopausal 25.8 – 134.8 mIU/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Assessment of pituitary function and to distinguish between primary and secondary gonadal failure.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>FSH values vary widely during the different phases of the normal female menstrual cycle.</b></li><li>• <b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 2 days after testing.

## FRESH FROZEN PLASMA (FFP)

<b><u>TEST NAME:</u></b>	FRESH FROZEN PLASMA (FFP)
<b><u>CPT CODE:</u></b>	P9017
<b><u>SPECIMEN REQUIREMENT:</u></b>	Pink EDTA vacutainer tube if blood type is not on file.
<b><u>COLLECTION REQUIREMENT:</u></b>	Two unique patient identifiers, date of specimen collection and initials of individual collecting the blood sample.
<b><u>METHOD:</u></b>	Thawing is performed using a 37°C water bath.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	STAT on all 3 shifts (call Blood Bank with urgency at ext. 8311).
<b><u>TURNAROUND TIME:</u></b>	60 minutes
<b><u>GENERAL USE OF TEST:</u></b>	For the treatment of coagulation deficiencies or to replace depleted coagulation factors.
<b><u>PATIENT PREPARATION:</u></b>	Refer to Transfusion Therapy Protocol.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Fresh frozen plasma is administered as ABO compatible without regard to Rh type.</li><li>• Fresh frozen plasma is good for only 24 hours after thawing. If not used, the product must be discarded (wasted).</li></ul>

## FROZEN TISSUE SECTION: RAPID SCREEN FOR MALIGNANCY

<b><u>TEST NAME:</u></b>	<b>FROZEN TISSUE SECTION: RAPID SCREEN FOR MALIGNANCY</b>
<b><u>CPT CODE:</u></b>	88331, 88332, 88333, 88334 (CPT codes vary based upon testing performed.)
<b><u>SPECIMEN REQUIREMENT:</u></b>	Fresh tissue (excluding bone and calcified tissue).
<b><u>COLLECTION REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Operative diagnosis and source must be provided.</li><li>• If an infectious disease is suspected, a warning must be stated on the requisition and specimen label.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Results interpreted by consulting Pathologist.
<b><u>METHOD:</u></b>	Cryotomy, Microscopy
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Anatomic Pathology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Contact OR Director.</li><li>• Scheduled with Pathology Aide 2 weeks in advance</li></ul>
<b><u>TURNAROUND TIME:</u></b>	Approximately 1 hour.
<b><u>GENERAL USE OF TEST:</u></b>	Provisional histologic diagnosis and aid to surgical therapy.
<b><u>LIMITATIONS:</u></b>	<b>Occasional false negative result.</b>

## GAMMA GLUTAMYL TRANSPEPTIDASE

<b><u>TEST NAME:</u></b>	GAMMA GLUTAMYL TRANSPEPTIDASE
<b><u>CPT CODE:</u></b>	82977
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females: 5 - 36 U/L Males: 8 – 61 U/L
<b><u>METHOD:</u></b>	Enzymatic colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Liver function.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>



## GENTAMICIN

**TEST NAME:**

GENTAMICIN

**CPT CODE:**

80170

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5mL serum tube.

**REFERENCE RANGE:**

*Trough:* < 2.0 µg/mL

*Peak:* 6.0 – 12.0 µg/mL

*Random:* 0.0 – 13.0 µg/mL

**CRITICAL VALUE:**

*Trough:* >2.0 µg/mL

*Peak:* >12.0 µg/mL

*Random:* >13.0 µg/mL

**METHOD:**

Immunoturbidimetric

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

To monitor antibiotic therapy and to test for insufficient or toxic serum levels of gentamicin.

**PATIENT PREPARATION:**

- a. Time of peak serum concentration  
If given IM: 60 minutes  
If given IV: 30 minutes after a 30 minute infusion
- b. Obtain trough level immediately before the 3rd dose.

**SPECIMEN PREPARATION:**

- Collect specimen using standard laboratory procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## GIARDIA ANTIGEN, STOOL

<b><u>TEST NAME:</u></b>	GIARDIA ANTIGEN, STOOL
<b><u>CPT CODE:</u></b>	87329
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 10 gm of stool in transport container with 10% formalin.</li><li>• A single specimen is adequate.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative for Giardia antigen.
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Daily on Day Shift
<b><u>GENERAL USE OF TEST:</u></b>	Detection of Giardia infection of the intestinal tract.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• <u>Preserved</u> specimens stored at room temperature (22° - 27°C).</li></ul>

## GLUCOSE, FASTING

<b><u>TEST NAME:</u></b>	GLUCOSE, FASTING
<b><u>CPT CODE:</u></b>	82947
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	70 – 100 mg/dL
<b><u>CRITICAL VALUE:</u></b>	Less than 1 month: <35 or >200 mg/dL Older than 1 month: <50 or >500 mg/dL
<b><u>METHOD:</u></b>	Hexokinase
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of carbohydrate metabolism.
<b><u>PATIENT PREPARATION:</u></b>	Fasting, if indicated.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room temperature: 8 hours</li><li>• Refrigerated: 3 days.</li></ul>

## GLUCOSE, RANDOM

<b><u>TEST NAME:</u></b>	GLUCOSE, RANDOM
<b><u>CPT CODE:</u></b>	82947
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Less than 1 month: 40 – 99 mg/dL 1 month or older: 70 – 100 mg/dL
<b><u>CRITICAL VALUE:</u></b>	<50 or >500 mg/dL
<b><u>METHOD:</u></b>	Hexokinase
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Carbohydrate metabolism disorders.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room temperature: 8 hours</li><li>• Refrigerated: 3 days.</li></ul>

## GLUCOSE, SPINAL FLUID

<b><u>TEST NAME:</u></b>	GLUCOSE, SPINAL FLUID
<b><u>CPT CODE:</u></b>	82945 (GLCS)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL spinal fluid in a sterile plastic CSF screw cap tube (#2).
<b><u>REFERENCE RANGE:</u></b>	40 – 70 mg/dL
<b><u>METHOD:</u></b>	Hexokinase
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Diagnosis of central nervous system disorders.
<b><u>LIMITATIONS:</u></b>	<b>Grossly bloody specimen; bacterial contamination.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	If specimen is cloudy or bloody, centrifuge and remove the supernatant within 60 minutes of collection.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Room temperature: 8 hours</li><li>• Refrigerated: 3 days.</li></ul>

## GLUCOSE TOLERANCE

<b><u>TEST NAME:</u></b>	<b>GLUCOSE TOLERANCE</b>
<b><u>CPT CODE:</u></b>	82947, 82950 – Standard Oral 82951, 82952 – Standard Gestational 82950 – Gestational Screen
<b><u>SPECIMEN REQUIREMENTS:</u></b>	0.5 mL serum from a 5 mL serum tube for each level.
<b><u>REFERENCE RANGE:</u></b>	<u>2 Hr PC:</u> 75 – 139 mg/dL <u>1 Hour Post 50 gm:</u> 75 – 139 mg/dL <u>Standard GTT:</u> Fasting: 70 – 100 mg/dL 1 Hour: 90 – 170 mg/dL 2 Hours: 75 – 135 mg/dL 3 Hours: 70 – 110 mg/dL 4 Hours: 70 – 110 mg/dL 5 Hours: 70 – 110 mg/dL <u>Gestational GTT per the ACOG:</u> Fasting: <95 mg/dL 1 Hour: <180 mg/dL 2 Hour: <155 mg/dL 3 Hour: <140 mg/dL
<b><u>CRITICAL VALUE:</u></b>	<50 or >500 mg/dL
<b><u>METHOD:</u></b>	Hexokinase
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>Monday through Friday.</li><li>This test is only available on the BMH campus.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	Results will be reported upon completion of tolerance test.
<b><u>GENERAL USE OF TEST:</u></b>	Endocrine disorders, carbohydrate metabolism.
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>Fasting; no smoking.</li><li>Administer Glucola after baseline results are received.</li><li>Patient can drink water.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>Collect specimen using standard laboratory procedures.</li><li>Centrifuge specimen; separate serum from cells within 2 hours of collection..</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>Room temperature: 8 hours</li><li>Refrigerated: 3 days.</li></ul>

## GRAM STAIN

**TEST NAME:**

GRAM STAIN

**CPT CODE:**

87205

**SPECIMEN REQUIREMENT:**

- Same specimen as for routine culture of site (specify site of material) or slide material.
- If culture is also requested, a second swab must be submitted.
- 2 mL (minimum) or 1 swab or 1 slide.
- Sterile containers for fluids; culturette swab for other material.

**REFERENCE RANGE:**

No organisms seen; mixed morphology suggestive of normal flora for site or specimen contamination.

**METHOD:**

Microscopic examination

**LAB SECTION PERFORMING TEST:**

Microbiology

**AVAILABILITY:**

- Routine: Day shift; Monday through Sunday

**TURNAROUND TIME:**

- Routine requests reported by end of day shift.

**GENERAL USE OF TEST:**

To determine presence or absence of bacteria, yeast, neutrophils and epithelial cells.

**PATIENT PREPARATION:**

Same as routine culture of specific site.

**LIMITATIONS:**

- **Organism isolation and identification will only be performed if routine culture is requested.**
- **Antimicrobial therapy can result in atypical forms or false negative results.**
- **Gram stains of sites where normal flora cannot be differentiated from pathogens (throat, stool) are normally not performed.**
- **Gram stains of blood and urine generally do not provide useful results.**

**SPECIMEN PREPARATION:**

- Same procedure as for routine culture of the specific site.
- Specimens must be collected to avoid contamination with skin, adjacent structures and non-sterile surfaces.

**ADD-ON REQUIREMENTS**

Same as for culture requirements for specimen site.

## HCG QUALITATIVE- PREGNANCY TEST

<b><u>TEST NAME:</u></b>	HCG QUALITATIVE, PREGNANCY TEST
<b><u>CPT CODE:</u></b>	84703 (HCG)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL from a 5mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Assay reported as positive or negative.
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Serology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of pregnancy
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• .Refrigerated: 48 hours</li></ul>



<b><u>TEST NAME:</u></b>	<b>HCG, BETA (QUANTITATIVE)</b>
<b><u>CPT CODE:</u></b>	84702 (QHCG)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Non-pregnant females: < 5 mIU/mL.
<b><u>METHOD:</u></b>	Chemiluminescent immunoassay.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"> <li>• Same shift testing.</li> <li>• If ordered STAT, within 60 minutes of receipt in the laboratory.</li> </ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"> <li>• Hydatidiform mole.</li> <li>• Choriocarcinoma.</li> <li>• Ectopic pregnancy.</li> <li>• Threatened or missed abortion.</li> </ul>
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"> <li>• Collect specimen using standard lab procedures.</li> <li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li> </ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held 3 days after testing.

## HCG, URINE

<b><u>TEST NAME:</u></b>	HCG, URINE
<b><u>CPT CODE:</u></b>	84703
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL of urine.
<b><u>REFERENCE RANGE:</u></b>	<25 mIU/mL negative ≥25 mIU/mL positive
<b><u>METHOD :</u></b>	Immunoassay.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift of collection.</li><li>• If ordered STAT, within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of pregnancy.
<b><u>SPECIMEN PREPARATION:</u></b>	Submit urine in a clean, dry container.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Refrigerated: 48 hours</li></ul>

## HEMOGLOBIN A1C

<b><u>TEST NAME:</u></b>	HEMOGLOBIN A1C
<b><u>CPT CODE:</u></b>	83036 (A1C)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL whole blood (EDTA) from a lavender top tube.
<b><u>REFERENCE RANGE:</u></b>	4.5 – 5.7%
<b><u>METHOD:</u></b>	Immunoturbidimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing on Days and Evenings.
<b><u>GENERAL USE OF TEST:</u></b>	Monitor diabetic patient.
<b><u>LIMITATIONS:</u></b>	<b>Hemoglobin variants may interfere.</b>
<b><u>ADD-ON REQUIREMENTS</u></b>	Whole blood samples are stable for 7 days at 2 - 8°C.

## HEPATITIS A IGM

<b><u>TEST NAME:</u></b>	HEPATITIS A IMMUNOGLOBULIN M (Hepatitis A IgM)
<b><u>CPT CODE:</u></b>	86709
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To aid in the diagnosis of an acute or recently acquired Hepatitis A infection
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Room Temp: 2 hours Refrigerated: 7 days

## HEPATITIS B CORE IGM

<b><u>TEST NAME:</u></b>	HEPATITIS B CORE IMMUNOGLOBULIN M (Anti HBc IgM)
<b><u>CPT CODE:</u></b>	86705
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	In vitro qualitative determination of Hepatitis B Core IgM antibodies (anti-HBc IgM)
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Refrigerated: 7 days

## HEPATITIS B SURFACE ANTIBODY

<b><u>TEST NAME:</u></b>	HEPATITIS B SURFACE ANTIBODY (HBsAb)
<b><u>CPT CODE:</u></b>	86706
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Immune or Non-immune depending on vaccination status.
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<p>To determine susceptibility to Hepatitis B virus prior to or following HBV vaccination or where vaccination status is unknown.</p> <p>To monitor the course of disease following acute hepatitis B infection</p>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Refrigerated: 6 days

## HEPATITIS B SURFACE ANTIGEN

<b><u>TEST NAME:</u></b>	HEPATITS B SURFACE ANTIGEN (HBsAg)
<b><u>CPT CODE:</u></b>	87340
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li><li>• STAT</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of Hepatitis B Surface Antigen
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Room Temp: 6 days Refrigerated: 7 days

## HEPATIS B SURFACE ANTIGEN CONFIRMATORY TEST

<b><u>TEST NAME:</u></b>	HEPATITS B SURFACE ANTIGEN (HBsAg)
<b><u>CPT CODE:</u></b>	87341
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li><li>• STAT</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of Hepatitis B Surface Antigen
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Room Temp: 6 days Refrigerated: 7 days



## HEPATITIS C ANTIBODY

<b><u>TEST NAME:</u></b>	HEPATITIS C ANTIBODY (HCV)
<b><u>CPT CODE:</u></b>	86803
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum tubes.
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Electrochemilumescence
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	To aid in the presumptive diagnosis of HCV infection in persons with signs and symptoms and in persons at risk for hepatitis C infection.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Room Temp: 3 days Refrigerated: 7 days

## HUMAN IMMUNODEFICIENCY VIRUS

<b><u>TEST NAME:</u></b>	<b>HUMAN IMMUNODEFICIENCY VIRUS (STAT HIV) (Needlesticks and prenatal Mothers with unknown HIV status only)</b>
<b><u>CPT CODE:</u></b>	86703
<b><u>SPECIMEN REQUIREMENT:</u></b>	Serum and EDTA tubes. (Serum is required for follow-up testing if required.)
<b><u>REFERENCE RANGE:</u></b>	Non-Reactive
<b><u>METHOD:</u></b>	Immunochromatography
<b><u>LAB SECTIONS PERFORMING TEST:</u></b>	Serology and Hematology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily.</li><li>• STAT for ED and Birthing Center Inpatients only.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of HIV 1 and 2 antibodies and p24 antigen.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimens using standard laboratory procedures.</li><li>• Centrifuge serum tube within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS:</u></b>	Room Temp: 2 days Refrigerated: 7 days

## INFLUENZA VIRUS A&B ANTIGEN DETECTION

<b><u>TEST NAME:</u></b>	<b>INFLUENZA VIRUS A&amp;B ANTIGEN DETECTION</b>
<b><u>CPT CODE:</u></b>	87804 x 2
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 0.5 – 3.0 ml nasopharyngeal washings. Aspirate material from nasopharynx is acceptable.</li><li>• E swabs are acceptable.</li><li>• Laboratory <b>will not</b> collect this specimen.</li><li>• Submit to laboratory within 1 hour of collection.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Enzyme immunomembrane filter assay.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Routine testing available Monday – Sunday.</li><li>• STAT 24/7</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Direct qualitative assay for Influenza Virus A & B antigen in nasopharyngeal washings in patients with symptoms consistent with influenza infection.
<b><u>PATIENT PREPARATION:</u></b>	None
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Assay is not a culture method.</b></li><li>• <b>Both viable and non-viable influenza will be detected.</b></li><li>• <b>Sensitivity of flu A Ag is 96% and flu B Ag is 98% compared to culture.</b></li><li>• <b>Specimens, which test negative for both flu A and flu B antigens, can be sent for culture with a physician order.</b></li><li>• <b>Influenza infection is seasonal. Testing should be confined to the period December – March.</b></li></ul>
<b><u>SPECIAL PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Sterile saline is introduced into and recovered from nasopharynx via tubing and syringe or bulb.</li><li>• Washings are transferred to tube containing viral transport media.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Store 2° - 8°C until tested (up to 72 hours).</li></ul>

## IRON

**TEST NAME:**

IRON

**CPT CODE:**

83540

**SPECIMEN REQUIREMENT:**

1 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

Females: 37-145 µg/dL

Males: 59 - 158 µg/dL

**METHOD:**

Ferrozine-no deproteinization

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

- Daily

**TURNAROUND TIME:**

- Routine, same shift testing.
- Results of specimens for total iron studies requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Evaluation of iron metabolism.

**PATIENT PREPARATION:**

Fasting is recommended.

**LIMITATIONS:**

**Contraindicated during iron therapy.**

**SPECIMEN PREPARATION:**

- Collect specimen using standard laboratory procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## KOH PREPARATION

<b><u>TEST NAME:</u></b>	<b>KOH PREPARATION</b>
<b><u>CPT CODE:</u></b>	87220
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Skin scrapings collected from the outer, growing edge of suspected fungal lesions.</li><li>• Visible (up to 50 or more) amount of skin flakes, submitted in sterile, dry container with tight fitting top.</li><li>• <b>Finger nails are acceptable but not swabs.</b></li></ul>
<b><u>REFERENCE RANGE:</u></b>	No fungal elements seen.
<b><u>METHOD:</u></b>	Microscopic examination.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Results read day shift; Monday – Sunday.
<b><u>TURNAROUND TIME:</u></b>	24 hours
<b><u>GENERAL USE OF TEST:</u></b>	Direct examination of skin scraping for the presence of fungal elements.
<b><u>PATIENT PREPARATION:</u></b>	Same as for culture of specific site.
<b><u>LIMITATIONS:</u></b>	<b>KOH preparations may be negative when culture is positive.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Specimen will be divided for fungal culture and KOH preparation and other ordered cultures, volume permitting.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Avoid moisture.</li><li>• Refrigeration not required.</li></ul>

## LACTATE DEHYDROGENASE

<b><u>TEST NAME:</u></b>	LACTATE DEHYDROGENASE
<b><u>CPT CODE:</u></b>	83615
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Females 135 – 214 U/L Males 135 – 225 U/L
<b><u>METHOD:</u></b>	Lactate to pyruvate
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Cardiac and liver disorder, hematologic disorders, certain tumors.
<b><u>LIMITATIONS:</u></b>	<b>Hemolyzed samples should not be used; hemolysis will cause falsely elevated results.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing.</li></ul>

## LACTIC ACID

**TEST NAME:**

LACTIC ACID

**CPT CODE:**

83605

**SPECIMEN REQUIREMENT:**

- 1 mL plasma from a grey top tube (sodium fluoride/potassium oxalate).
- If possible, collect specimen without applying a tourniquet.
- Centrifuge specimen within 15 minutes of collection and remove plasma.

**REFERENCE RANGE:**

- 0.5 – 2.2 mmol/L

**METHOD:**

Colorimetric

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

Same shift testing.

- STAT specimens in 60 minutes.

**GENERAL USE OF TEST:**

- Detection of tissue hypoxia, diabetes mellitus,
- malignancies, glycogen storage disease, ethanol, methanol or salicylate ingestion and metabolic acidosis.

**PATIENT PREPARATION:**

The patient should avoid any exercise of the arm or hand before or during collection of specimen.

**SPECIMEN PREPARATION:**

Collect specimen using standard laboratory procedures.

- Centrifuge specimen; remove plasma from cells within 15 minutes of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 8 hours after testing.

## LEGIONELLA ANTIGEN, URINE

**TEST NAME:** LEGIONELLA ANTIGEN, URINE

**CPT CODE:** 87449

**SPECIMEN REQUIREMENT:**

- Urine voided into a sterile container

**REFERENCE RANGE:** Negative for Legionella antigen.

**METHOD:** Immunoassay

**LAB SECTION PERFORMING TEST:** Serology

**AVAILABILITY:** STAT OR Routine on all shifts

**TURNAROUND TIME**

- Results of routine specimens collected by 9:00 PM will be reported by 7:00 AM.
- Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:** Detection of Legionella antigen in urine.

**ADD-ON REQUIREMENTS**

- The specimens can be stored at room temperature (59-86°F, 15-30°C) if assayed within 24 hours of collection. Alternatively, specimens may be stored at 2-8°C for up to 14 days before testing.



## LEUKOCYTE REDUCED RED BLOOD CELLS

<b><u>TEST NAME:</u></b>	LEUKOCYTE REDUCED RED BLOOD CELLS
<b><u>CPT CODE:</u></b>	P9016
<b><u>SPECIMEN REQUIREMENT:</u></b>	EDTA vacutainer tube is required for a crossmatch.
<b><u>COLLECTION REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Two unique patient identifiers on tube label, date of specimen collection and initials of individual collecting the blood sample.</li><li>• The patient must be positively identified using a Securline blood band.</li></ul>
<b><u>METHOD:</u></b>	Tube Method.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Blood Bank
<b><u>AVAILABILITY:</u></b>	STAT on all 3 shifts.
<b><u>TURNAROUND TIME:</u></b>	1 hour.
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Indicated for any patient who requires a packed red cell product.</li><li>• Indicated for treatment of symptomatic anemia in patients who require only an increase of oxygen carrying capacity and red blood cells mass.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	Refer to Transfusion Therapy Protocol.

## LIPID PANEL STANDARD

<b><u>TEST NAME:</u></b>	LIPID PANEL STANDARD (CARDUAC) (HDL, Cholesterol, Triglycerides, and LDL)
<b><u>CPT CODE:</u></b>	80061
<b><u>SPECIMEN REQUIREMENT:</u></b>	2.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	See individual tests.
<b><u>METHOD:</u></b>	See individual tests.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	See individual tests.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is preferred.
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Collect specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## LIPASE

**TEST NAME:**

LIPASE

**CPT CODE:**

83690

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

13 – 60 U/L

**METHOD:**

Enzymatic colorimetric

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- STAT specimens in 60 minutes.

**GENERAL USE OF TEST:**

Acute pancreatitis; obstruction of pancreatic duct.

**SPECIMEN PREPARATION:**

- Collect specimen using standard laboratory procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## LITHIUM

**TEST NAME:**

LITHIUM

**CPT CODE:**

80178 (LI)

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

0.6 – 1.2 mmol/L

**CRITICAL VALUE:**

>1.6 mmol/L

**METHOD:**

Colorimetric

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Therapeutic monitoring of lithium.

**SPECIMEN PREPARATION:**

- Collect specimen using standard laboratory
- Centrifuge specimen; separate serum from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

Samples will be capped and held for 7 days.

## LIVER FUNCTION PANEL

<b><u>TEST NAME:</u></b>	<b>LIVER FUNCTION PANEL</b> (Alb, ALT, AST, T. Bil, Alk Phos, DBil, T Protein)
<b><u>CPT CODE:</u></b>	80076
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	See individual tests.
<b><u>METHOD:</u></b>	See individual tests.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT results will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of various serum biochemistry constituents.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## LOW MOLECULAR WEIGHT HEPARIN (2 pages)

<b><u>TEST NAME:</u></b>	HEPARIN, LOW MOLECULAR WEIGHT, ANTI-Xa
<b><u>CPT CODE:</u></b>	85520
<b><u>SPECIMEN REQUIREMENT:</u></b>	Plasma from a full blue top tube (sodium citrate).
<b><u>REFERENCE RANGE:</u></b>	LMWH therapeutic range: 0.50-1.00 IU/mL for twice daily dosing* LMWH therapeutic range: 1.00-2.00 IU/mL for once daily dosing* LMWH prophylactic range: 0.10-0.30 IU/mL (*sample obtained 4-6 hours following subcutaneous injection)
<b><u>CRITICAL VALUE</u></b>	>2.0 IU/mL
<b><u>METHOD:</u></b>	Photo-Optical
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Monitoring Therapy with Low Molecular Weight Heparin
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Clotted specimen.</b></li><li>• <b>Improper labeling.</b></li><li>• <b>Specimen greater than 4 hours old.</b></li><li>• <b>Incomplete filling of vacutainer.</b></li><li>• <b>Grossly, hemolyzed, icteric or lipemic specimen.</b></li><li>• <b>Anticoagulant therapy should be noted on requisition.</b></li></ul>

**TEST NAME:**

**LOW MOLECULAR WEIGHT HEPARIN, ANTI-Xa**

**SPECIMEN PREPARATION:**

- **Mix immediately after drawing.**
- **Centrifuge at 3500 g for 10 minutes.**
- **Remove plasma within 24 hours of venipuncture.**

**ADD-ON REQUIREMENTS**

**Samples will be capped and held for 24 hours after testing.**

## LUTEINIZING HORMONE

**TEST NAME:**

LUTEINIZING HORMONE

**CPT CODE:**

83002 (LH)

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGES:**

Women

Follicular phase	2.4	12.6	mIU/mL
Ovulation phase	14.0	95.6	mIU/mL
Luteal phase	1.0	11.4	mIU/mL
Postmenopause	7.7	58.5	mIU/mL

Men

1.7 8.6 mIU/mL

**METHOD:**

Electrochemiluminescence

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily

**TURNAROUND TIME:**

Same shift testing.

**GENERAL USE OF TEST:**

- Regulation of menstrual cycle.
- Maintenance of pregnancy.
- Assessment of hypothalamic function and pituitary function.
- To distinguish between primary or secondary gonadal failure.

**LIMITATIONS:**

**Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.**

**SPECIMEN PREPARATION:**

- Collect specimen using standard laboratory procedures.
- Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days.



## MAGNESIUM

<b><u>TEST NAME:</u></b>	<b>MAGNESIUM</b>
<b><u>CPT CODE:</u></b>	83735 (MG)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	1.6 – 2.6 mg/dL
<b><u>CRITICAL VALUE:</u></b>	<1.0 mg/dL or >4.9 mg/dL
<b><u>METHOD:</u></b>	Colorimetric Endpoint
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of metabolic disorders.
<b><u>LIMITATIONS:</u></b>	<b>Protective gloves manufactured with magnesium stearate (talc) powder may cause elevated test results because of contamination of sample handling supplies.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## MAGNESIUM, URINE

<b><u>TEST NAME:</u></b>	MAGNESIUM, URINE
<b><u>CPT CODE:</u></b>	83735 (MG)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL urine from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	72.9- 121.5 mg/24 hr
<b><u>METHOD:</u></b>	Colorimetric Endpoint
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of metabolic disorders.
<b><u>LIMITATIONS:</u></b>	<b>Protective gloves manufactured with magnesium stearate (talc) powder may cause elevated test results because of contamination of sample handling supplies.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## MALARIA SMEAR

<b><u>TEST NAME:</u></b>	<b>MALARIA SMEAR</b>
<b><u>CPT CODE:</u></b>	87207
<b><u>SPECIMEN REQUIREMENT:</u></b>	3 – 5 mL whole blood (EDTA) in lavender top vacutainer and blood smears from finger stick (capillary puncture).
<b><u>REFERENCE RANGE:</u></b>	No parasite observed.
<b><u>CRITICAL VALUE:</u></b>	Presence of malaria parasites.
<b><u>METHOD:</u></b>	Examination of peripheral smear.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• All shifts</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Suspected malarial disease.</li><li>• Microscopic examination of thick and thin blood smears for blood borne parasites.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	None
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>A single negative result does not rule out the presence of Malaria organisms.</b></li><li>• <b>Multiple samples over a 36-hour period are recommended.</b></li><li>• <b>Antimalarial chemotherapy; improper timing of collection.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	Venipuncture or capillary collection should take place just prior to or at onset of chills.
<b><u>STORAGE REQUIREMENTS</u></b>	Smears should be made immediately to avoid prolonged contact of the organisms with EDTA.

## MICROALBUMIN

<b><u>TEST NAME:</u></b>	<b>MICROALBUMIN (Quantitative)</b>
<b><u>CPT CODE:</u></b>	82043
<b><u>SPECIMEN REQUIREMENT:</u></b>	Random urine with no preservative collected in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	<20 µg/mg Creatinine
<b><u>METHOD:</u></b>	Albumin: Immunoturbidometric assay Creatinine: Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	All shifts
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Aids in the diagnosis of kidney and intestinal disease.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing

## MONONUCLEOSIS, SCREEN

<b><u>TEST NAME:</u></b>	MONONUCLEOSIS, SCREEN
<b><u>CPT CODE:</u></b>	86308
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Dipstick
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Serology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Results of routine specimens collected by 9:00 PM will be reported by 7:00 AM.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	The detection of heterophile antibodies related to infectious mononucleosis.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing.</li></ul>

## OCCULT BLOOD, GASTRIC

<b><u>TEST NAME:</u></b>	OCCULT BLOOD, GASTRIC
<b><u>CPT CODE:</u></b>	82271
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL gastric contents submitted in a clean, sealed container.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Buffered guaiac slide test.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Rapid screening test designed for detection of occult blood in gastric aspirate or vomitus.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Test results should be used only in conjunction with other information relevant to the clinical status of the patient.</b></li><li>• <b>A positive test result may suggest the need for more careful monitoring of the patient.</b></li><li>• <b>Many foods can produce a positive test result. Therefore, a positive result does not always indicate the presence of human blood.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	Specimen must be labeled with patient's full name, room number, date, medical record number, and date, time and initial of collection personnel.
<b><u>ADD-ON REQUIREMENTS</u></b>	Test immediately after collection. If not possible, store gastric secretions at room temperature for 24 hours or up to 5 days at 2° - 8°C.

## OCCULT BLOOD, STOOL (2 pages)

<b><u>TEST NAME:</u></b>	OCCULT BLOOD, STOOL
<b><u>CPT CODE:</u></b>	82270
<b><u>SPECIMEN REQUIREMENT:</u></b>	Fresh random stool submitted in a clean, sealed container.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Buffered guaiac slide test.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Routine screening procedure for occult blood in stool.
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Patient should not eat red meats, including processed meats and liver, melon, radishes, horseradish, turnips, aspirin or Vitamin C in excess of 250 mg/day for a period of 2 days prior to collection of specimen.</li><li>• Oral medications, such as aspirin, indomethacin, reserpine, phenylbutazone, corticosteroids and heavy alcohol consumption may cause irritation or bleeding of the gastrointestinal tract and should be discontinued for 3 days prior to and during the test period.</li></ul> <p><b>NOTE:</b> Roughage in the diet can increase test accuracy by uncovering silent lesions that bleed intermittently.</p>
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Vitamin C intact may cause false negatives.</b></li><li>• <b>Results obtained cannot be considered conclusive evidence of the presence of gastrointestinal bleeding or pathology.</b></li><li>• <b>False negative tests may be obtained since most bleeding occurs intermittently.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	Specimen must be labeled with patient's full name, room number, date, medical record number, and date, time and initial of collection personnel.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Test immediately after collection. If not possible, store the stool sample at 2° - 8°C for up to 5 days.</li></ul>

**STORAGE REQUIREMENTS CONT:**

- Hemocult cards with stool applied can be stored at room temperature for up to 10 days following collection of the stool sample.



## PARTIAL THROMBOPLASTIN TIME, ACTIVATED APPT

<b><u>TEST NAME:</u></b>	PARTIAL THROMBOPLASTIN TIME, ACTIVATED, APPT
<b><u>CPT CODE:</u></b>	85730
<b><u>SPECIMEN REQUIREMENT:</u></b>	Plasma from a full blue top tube (sodium citrate).
<b><u>REFERENCE RANGE:</u></b>	Reference range listed on report.
<b><u>CRITICAL VALUE:</u></b>	>119 seconds.
<b><u>METHOD:</u></b>	Photo optical
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT = 60 min.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Measurement of intrinsic coagulation system.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Heparin therapy should be noted on requisition.</li><li>• Clotted specimen, inadequate filling of tube, specimen greater than 4 hours old, improper labeling, grossly hemolyzed, icteric or lipemic specimens, specimen drawn above an IV.</li><li>• Drugs that may interfere include Zosyn (piperacillin/tazobactam), Alteplase, Thrombin, Protamine sulfate, Clopidogrel bisulfate, Tenecteplase, Tranexamic acid.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Mix well immediately after drawing.</li><li>• Centrifuge at 3500 g for 10 minutes within four hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• <b>Note:</b> Plasma from heparinized patients must be centrifuged within 1 hour of collection and tested within 4 hours of collection.</li></ul>

## pH, BODY FLUIDS

<b><u>TEST NAME:</u></b>	pH, BODY FLUIDS
<b><u>CPT CODE:</u></b>	82800
<b><u>SPECIMEN REQUIREMENT:</u></b>	Body fluid submitted in green top tube (heparin). <b>No Pleural Fluids.</b>
<b><u>REFERENCE RANGE:</u></b>	Should be interpreted with regard to fluid type submitted.
<b><u>METHOD:</u></b>	Dipstick
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Determine pH of clinical specimen.
<b><u>STORAGE REQUIREMENTS</u></b>	Refrigerate at 2° - 8°C for up to a week.

## PHENYTOIN (DILANTIN)

<b><u>TEST NAME:</u></b>	PHENYTOIN (DILANTIN)
<b><u>CPT CODE:</u></b>	80185
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 0.5 mL serum from a 5 mL plain red top tube.</li><li>• <b>Do not collect in SST tube.</b></li></ul>
<b><u>REFERENCE RANGE:</u></b>	10 – 20 µg/mL
<b><u>CRITICAL VALUE:</u></b>	>30 µg/mL
<b><u>METHOD:</u></b>	Kinetic interaction of microparticles in a solution (KIMS)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STATs will be resultd within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Monitor phenytoin levels to ensure appropriate therapy.
<b><u>PATIENT PREPARATION:</u></b>	<i>Trough:</i> One hour prior to next dose.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for at least 4 days after testing.</li></ul>

## PHOSPHORUS, BLOOD

<b><u>TEST NAME:</u></b>	PHOSPHORUS, BLOOD
<b><u>CPT CODE:</u></b>	84100
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	2.5 – 4.5 mg/dL
<b><u>CRITICAL VALUE:</u></b>	<1.1 mg/dL
<b><u>METHOD:</u></b>	Phosphomolybdate UV
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Measurement of phosphorus is used in the diagnosis and treatment of parathyroid gland and kidney diseases, and Vitamin D imbalance.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing.</li></ul>

## PHOSPHORUS, URINE

<b><u>TEST NAME:</u></b>	PHOSPHORUS, URINE
<b><u>CPT CODE:</u></b>	84105
<b><u>SPECIMEN REQUIREMENT:</u></b>	Random urine or 24-hour urine collected with no preservative in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	18 yrs. and up: 400 – 1300 mg/24 hrs.
<b><u>METHOD:</u></b>	Phosphomolybdate UV
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Measurement of phosphorus is used in the diagnosis and treatment of parathyroid gland and kidney diseases, and Vitamin D imbalance.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• No preservatives necessary.</li><li>• Refrigerate specimen during collection and until analysis.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 4 days hours after testing

## PINWORM PREPARATION

<b><u>TEST NAME:</u></b>	PINWORM PREPARATION
<b><u>CPT CODE:</u></b>	87208
<b><u>SPECIMEN REQUIREMENT:</u></b>	Special collection containers obtained from the Microbiology Laboratory.
<b><u>COLLECTION REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• <b>Pinworm eggs are very infectious. Be sure to secure the container.</b></li></ul>
<b><u>REFERENCE RANGE:</u></b>	No pinworm ( <u>Enterobius vermicularis</u> ) eggs seen.
<b><u>METHOD:</u></b>	Microscopic examination
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Day shift, Monday – Sunday.
<b><u>TURNAROUND TIME:</u></b>	Same day
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• To detect cases of enterobiasis.</li><li>• Pinworm identification.</li><li>• One negative result does not rule out the possibility of parasitic infection.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	None
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Examination for pinworm only.</b></li><li>• <b>Tests will not detect other parasites.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen is best obtained a few hours after the person retires, perhaps at 10:00 or 11:00 PM <b>OR</b> first thing in the morning before a bowel movement or bath.</li><li>• Remove the lid and <b>paddle</b> assembly from the vial provided. Do not disconnect the <b>paddle</b> from the lid. Touch the sticky side of the <b>paddle</b> to the folds of skin around the anus.</li><li>• If any worms are visible, be sure to capture them on the tape.</li><li>• Secure the vial and send to the laboratory.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	No refrigeration required.

## PLATELETS

**TEST NAME:**

PLATELETS

**CPT CODE:**

P9035

**SPECIMEN REQUIREMENT:**

EDTA or plain red top vacutainer tube if blood type is not on file.

**COLLECTION REQUIREMENT:**

Two unique patient identifiers on tube label, date of specimen collection and initials of individual collecting the blood sample.

**METHOD:**

Leukoreduced plateletpheresis products used.

**LAB SECTION PERFORMING TEST:**

Blood Bank

**AVAILABILITY:**

M-F: Order by 11:00 am to received platelets by 4:00 pm.  
Other Times: Contact Blood Bank at extension 8311.

**TURNAROUND TIME:**

60 minutes

**GENERAL USE OF TEST:**

To correct platelet deficiencies if clinical indicated.

**PATIENT PREPARATION:**

Refer to Transfusion Therapy Protocol.

## POTASSIUM

<b><u>TEST NAME:</u></b>	POTASSIUM
<b><u>CPT CODE:</u></b>	84132
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	3.5 – 5.1 mmol/L
<b><u>CRITICAL VALUE:</u></b>	<3.0 mmol/L or >6.0 mmol/L
<b><u>METHOD:</u></b>	Ion Selective Electrode, indirect
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Electrolyte balance
<b><u>LIMITATIONS:</u></b>	<b>Hemolysis falsely increases potassium.</b>
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• The patient should avoid any exercise of the arm or hand before or during collection because opening and closing the fist increases concentrations by 10 to 20%.</li><li>• <b>Do not draw from an arm receiving IV.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>



## POTASSIUM, URINE

<b><u>TEST NAME:</u></b>	POTASSIUM, URINE
<b><u>CPT CODE:</u></b>	84133)
<b><u>SPECIMEN REQUIREMENT:</u></b>	Total random urine or 24-hour urine collected with no preservative in a plastic container obtained from the laboratory.
<b><u>COLLECTION REQUIREMENT:</u></b>	See 24-hour urine collection procedure.
<b><u>REFERENCE RANGE:</u></b>	25 – 125 mmol/24 hours
<b><u>METHOD:</u></b>	Ion Selective Electrode, indirect
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Renal function.</li><li>• Disorders of aldosterone secretion.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## PREALBUMIN

**TEST NAME:**

PREALBUMIN

**CPT CODE:**

84134

**SPECIMEN REQUIREMENT:**

0.5 mL serum from 5 mL serum tube.

**REFERENCE RANGE:**

20 - 40 mg/dL

**METHOD:**

Immunoturbidimetric

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

All shifts.

**TURNAROUND TIME:**

Same shift testing.

**GENERAL USE OF TEST:**

Aids in the assessment of the patient's nutritional status.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 2 days after testing.

## Pro-BNP

<b><u>TEST NAME:</u></b>	Pro-BNP (N-terminal pro B-type natriuretic peptide)
<b><u>CPT CODE:</u></b>	83880
<b><u>SPECIMEN REQUIREMENT:</u></b>	1.0 mL from a lavender EDTA tube.
<b><u>REFERENCE RANGE:</u></b>	0-75 yr: <125 pg/mL > 75 yr: <450 pg/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Aid in the diagnosis and assessment of severity of congestive heart failure.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Concentrations may be elevated in patients:</b><ul style="list-style-type: none"><li>➢ who are experiencing a heart attack</li><li>➢ who are candidates for renal dialysis</li><li>➢ who have had renal dialysis</li></ul></li><li>• <b>This test has been formulated to minimize the effects of antibodies on the assay. However, clinicians should carefully evaluate results from patients suspected of having such antibodies.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	Centrifuge sample and remove plasma within 7 hours of collection.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples are capped and held for 6 days after testing.</li></ul>

## PROSTATE SPECIFIC ANTIGEN, TOTAL

<b><u>TEST NAMES:</u></b>	PROSTATE SPECIFIC ANTIGEN, DIAGNOSTIC PROSTATE SPECIFIC ANTIGEN, SCREENING
<b><u>CPT CODES:</u></b>	<u>Diagnostic PSA</u> 84153, <u>Screening PSA</u> 84153 G0103 (if appropriate)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL green top or serum separator tube
<b><u>REFERENCE RANGE:</u></b>	PSA, less than 4.0 ng/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Biopsy is necessary for diagnosis of cancer.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Serum PSA measurement is not an absolute test for malignancy. The PSA value should be used in conjunction with information available from clinical evaluation and other diagnostic procedures.</li><li>• Specimens obtained from patients undergoing prostate manipulation procedures may give erroneous results.</li><li>• Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 5 days after testing.

## PROTEIN, CEREBROSPINAL FLUID

<b><u>TEST NAME:</u></b>	PROTEIN, CEREBROSPINAL FLUID
<b><u>CPT CODE:</u></b>	84157
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL cerebrospinal fluid collected in a sterile plastic CSF screw cap tube (#1).
<b><u>REFERENCE RANGE:</u></b>	12 – 45 mg/dL
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Diagnosis of cerebrospinal fluid pathological processes.
<b><u>LIMITATIONS:</u></b>	<b>Presence of hemoglobin may elevate levels.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	If specimen is cloudy or bloody, centrifuge and remove the supernatant within 4 hours of collection.
<b><u>STORAGE REQUIREMENTS</u></b>	1 day at 20-25 °C 6 days at 4-8 °C.

## PROTEIN, TOTAL

<b><u>TEST NAME:</u></b>	PROTEIN, TOTAL
<b><u>CPT CODE:</u></b>	84155
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	6.6 – 8.7 g/dL
<b><u>METHOD:</u></b>	Biuret, serum blank, end point
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Detection of hypo and hyperproteinemia.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days.</li></ul>

## PROTEIN, URINE 24-HOUR

<b><u>TEST NAME:</u></b>	PROTEIN, URINE 24-HOUR
<b><u>CPT CODE:</u></b>	84156
<b><u>SPECIMEN REQUIREMENT:</u></b>	Random urine or a 24-hour urine collected with no preservatives in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	42 – 255 mg/24 hours
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Detection of clinically significant proteinuria.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• No preservatives necessary.</li><li>• Collect timed specimens on ice or refrigerate specimen during collection.</li><li>• Urine samples should not be collected after intense physical exertion, or acute fluid load or deprivation.</li><li>• Collect specimens prior to administration of contrast media.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	Centrifuge specimen before analysis to remove particulate matter.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• 1 day at 20-25 °C</li><li>• 7 days at 4-8 °C</li></ul>

## PROTHROMBIN TIME

<b><u>TEST NAME:</u></b>	PROTHROMBIN TIME
<b><u>CPT CODE:</u></b>	85610
<b><u>SPECIMEN REQUIREMENT:</u></b>	Plasma from a full blue top tube (sodium citrate).
<b><u>REFERENCE RANGE:</u></b>	Reference range listed on report.
<b><u>CRITICAL VALUE:</u></b>	>40 secs.
<b><u>METHOD:</u></b>	Photo-Optical
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• STAT: 60 minutes</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of extrinsic coagulation system and Vitamin K dependent factors. Monitoring or warfarin.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Clotted specimen.</b></li><li>• <b>Improper labeling.</b></li><li>• <b>Specimen greater than 4 hours old.</b></li><li>• <b>Incomplete filling of vacutainer.</b></li><li>• <b>Grossly, hemolyzed, icteric or lipemic specimen.</b></li><li>• <b>Anticoagulant therapy should be noted on requisition.</b></li><li>• <b>Drugs that may interfere include Zosyn (piperacillin/tazobactam ), Alteplase, Thrombin, Protamine sulfate, Clopidogrel bisulfate, Tenecteplase, Tranexamic acid.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Mix immediately after drawing.</li><li>• Centrifuge at 3500 g for 10 minutes.</li><li>• Remove plasma within 24 hours of venipuncture.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 24 hours after testing.



## RAPID UREASE SCREEN FOR HELICOBACTER PYLORI

<b><u>TEST NAME:</u></b>	RAPID UREASE
<b><u>CPT CODE:</u></b>	87072
<b><u>SPECIMEN REQUIREMENT:</u></b>	Gastric biopsy sample consisting of 1-3 mm tissue.
<b><u>COLLECTION REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Physician obtains gastric biopsy sample.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Test run day shift Monday – Friday</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Approximately 24 hours after receipt by the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Screening test for Helicobacter pylori.
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Standard endoscopy preparation.</li><li>• Patient should not have taken antibiotics or bismuth salts for at least three weeks prior to endoscopy.</li></ul>
<b><u>LIMITATIONS:</u></b>	<b>False negative results may occur with low numbers of H. pylori, usage of antibiotics or bismuth salts within three weeks of sample collection.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Direct inoculation into H. pylori medium

<b><u>TEST NAME:</u></b>	<b>RPR</b>
<b><u>CPT CODE:</u></b>	86592
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	Non-reactive
<b><u>METHOD:</u></b>	Charcoal particle agglutination on 18 mm circle cards.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Serology
<b><u>AVAILABILITY:</u></b>	Daily.
<b><u>TURNAROUND TIME:</u></b>	Weekly.
<b><u>GENERAL USE OF TEST:</u></b>	Screening test for syphilis.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"> <li>• Collect specimen using standard laboratory procedures.</li> <li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li> </ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"> <li>• Samples will be capped and held for at least 7 days after testing.</li> </ul>

## RESPIRATORY SYNCYTIAL VIRUS ANTIGEN DETECTION

<b><u>TEST NAME:</u></b>	RESPIRATORY SYNCYTIAL VIRUS (RSV) ANTIGEN DETECTION
<b><u>CPT CODE:</u></b>	87807
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Test only performed on pediatric patients 5 years or younger.</li><li>• 0.5 – 3.0 ml nasopharyngeal washings. Aspirate</li><li>• Nylon flocked swabs are acceptable.</li><li>• Sample must be from nasopharynx. Anterior nares and throat samples <b>are not</b> acceptable.</li><li>• Submit in viral transport media (obtain from Microbiology).</li><li>• Laboratory <b>will not</b> collect this specimen.</li><li>• Submit to laboratory within 1 hour of collection or on ice.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Enzyme immunomembrane filtering assay.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily</li><li>• STAT testing is available 24/7.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Direct qualitative assay for RSV antigen in nasopharyngeal washings in patients with symptoms consistent with RSV infection.
<b><u>PATIENT PREPARATION:</u></b>	None
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Assay is not a culture method.</b></li><li>• <b>Both viable and non-viable RSV will be detected.</b></li><li>• <b>RSV infection is seasonal. Testing should be confined to the fall, winter and early spring months.</b></li></ul>
<b><u>SPECIAL PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Sterile saline is introduced into and recovered from nasopharynx via tubing and syringe or bulb.</li><li>• Washings are transferred to tube containing viral transport media.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Store 2° - 8°C until tested.</li></ul>

## RETICULOCYTE COUNT

<b><u>TEST NAME:</u></b>	RETICULOCYTE COUNT
<b><u>CPT CODE:</u></b>	85045 (RETC) Flow Cytometry
<b><u>SPECIMEN REQUIREMENT:</u></b>	3 mL whole blood (EDTA) from lavender top tube <b>OR</b> 250 mL from a lavender microtainer.
<b><u>REFERENCE RANGE:</u></b>	<i>Females:</i> 0.5 – 1.7% <i>Males:</i> 0.51 – 1.81%
<b><u>METHOD:</u></b>	Flow cytometry
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of erythropoietic activity.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>Recently transfused patients.</b></li><li>• <b>Clotted specimen.</b></li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Specimens for flow cytometry may be stored at 2° - 8°C for up to 72 hours.</li></ul>

## RHEUMATOID FACTOR

<b><u>TEST NAME:</u></b>	RHEUMATOID FACTOR (RA)
<b><u>CPT CODE:</u></b>	86431
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<14 IU/mL Samples with over-range results diluted to endpoint.
<b><u>METHOD:</u></b>	Immunoturbidimetric assay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Special Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Detection of rheumatoid arthritis.
<b><u>SPECIAL PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen and separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## RUBELLA IGG

<b><u>TEST NAME:</u></b>	RUBELLA IGG
<b><u>CPT CODE:</u></b>	86762
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	A reactive result is an indication of previous exposure to Rubella, either by prior infection or by vaccination.).
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Determination of Immune status.
<b><u>SPECIAL PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen and separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing.</li></ul>

## SARS-COV-2 NUCLEIC ACID BY POLYMERASE CHAIN REACTION (PCR)

<b><u>TEST NAME:</u></b>	COVID-19
<b><u>CPT CODE:</u></b>	87635
<b><u>SPECIMEN REQUIREMENT:</u></b>	Purple top Nasopharyngeal Swab in Viral Transport Medium
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	PCR
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	Monday to Friday
<b><u>TURNAROUND TIME:</u></b>	24 hours
<b><u>GENERAL USE OF TEST:</u></b>	Detection of .covid-19
<b><u>SPECIAL PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Store Specimen at 2 – 8 °C if not brought to the lab immediately.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Not Applicable</li></ul>

## SALICYLATE

<b><u>TEST NAME:</u></b>	SALICYLATE
<b><u>CPT CODE:</u></b>	80302
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	3 - 10 mg/dL
<b><u>CRITICAL VALUE:</u></b>	>30 mg/dL
<b><u>METHOD:</u></b>	Enzymatic
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Monitor therapeutic drug level.</li><li>• Salicylate toxicity and poisoning.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• <i>Trough:</i> Immediately prior to next oral dose.</li><li>• <i>Peak:</i> 2 – 6 hours after dose.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>



## SEMEN ANALYSIS

<b><u>TEST NAME:</u></b>	<b>SEMEN ANALYSIS</b>
<b><u>CPT CODE:</u></b>	89320
<b><u>SPECIMEN REQUIREMENT:</u></b>	Single, total ejaculate submitted within 30-60 minutes in a clean 4 oz. plastic screw top container.
<b><u>REFERENCE RANGE:</u></b>	<i>Fluid volume:</i> 1.5 – 5 ml <i>Sperm count:</i> 20,000,000 to 150,000,000/ml
<b><u>METHOD:</u></b>	Manual count & normal morphology determination.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Monday to Friday: 7 am – 12 pm.
<b><u>TURNAROUND TIME:</u></b>	24 – 48 hours (for abnormal [manual] morphology).
<b><u>GENERAL USE OF TEST:</u></b>	Quantitative and qualitative examination of seminal fluid in the diagnosis of male infertility.
<b><u>PATIENT PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Patient should abstain from sexual activity for the three days prior to specimen collection.</li><li>• Patient should receive our instruction sheet.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen is deposited directly into container.</li><li>• Exact time of collection must be noted on container or requisition.</li><li>• Specimen must be kept at body temperature while being transported to the laboratory.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Keep sample warm; <b>do not refrigerate.</b>

## SEMEN, ANALYSIS, POST VASECTOMY

<b><u>TEST NAME:</u></b>	<b>SEMEN ANALYSIS POST VASECTOMY</b>
<b><u>CPT CODE:</u></b>	89300
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Fluid volume: 1.5 – 5 ml</li><li>• Single, total ejaculate submitted within 12 – 18 hours in a clean plastic screw top container.</li><li>• Submission within 2 – 4 hours is preferred.</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Sperm absent
<b><u>METHOD:</u></b>	Microscopic examination
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Monday to Friday: 7 am – 12 pm.
<b><u>TURNAROUND TIME:</u></b>	Same day
<b><u>GENERAL USE OF TEST:</u></b>	Determine presence or absence of sperm after vasectomy procedure.
<b><u>PATIENT PREPARATION:</u></b>	Patient should abstain from sexual activity for the three days prior to specimen collection.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Specimen is deposited directly into container.</li><li>• Time of collection must be noted on container or requisition.</li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Keep sample warm.</li><li>• <b>Do not refrigerate.</b></li></ul>

## STREPTOCOCCUS PNEUMONIAE ANTIGEN, URINE

<b><u>TEST NAME:</u></b>	STREP PNEUMONIAE ANTIGEN, URINE
<b><u>CPT CODE:</u></b>	87899
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• Urine voided into a sterile container</li></ul>
<b><u>REFERENCE RANGE:</u></b>	Negative for Streptococcus pneumoniae antigen.
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Serology
<b><u>AVAILABILITY:</u></b>	STAT OR Routine on all shifts
<b><u>TURNAROUND TIME</u></b>	<ul style="list-style-type: none"><li>• Results of routine specimens collected by 9:00 PM will be reported by 7:00 AM.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of Strep pneumoniae antigen in urine.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• The specimens can be stored at room temperature (59-86°F, 15-30°C) if assayed within 24 hours of collection. Alternatively, specimens may be stored at 2-8°C for up to 14 days before testing.</li></ul>

## SODIUM

<b><u>TEST NAME:</u></b>	SODIUM
<b><u>CPT CODE:</u></b>	84295
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	136 – 145 mmol/L
<b><u>CRITICAL VALUE:</u></b>	<125 OR >160 mmol/L
<b><u>METHOD:</u></b>	Ion Selective Electrode, indirect
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Electrolyte balance.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## SODIUM, URINE

<b><u>TEST NAME:</u></b>	SODIUM, URINE
<b><u>CPT CODE:</u></b>	84300
<b><u>SPECIMEN REQUIREMENT:</u></b>	Random urine or 24-hour urine collected with no preservative in a plastic container obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	40 - 220 mmol/24 hours
<b><u>METHOD:</u></b>	Direct Ion Selective Electrode
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Renal function.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• No preservations necessary.</li><li>• Refrigerate during collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing</li></ul>

## STREP A ANTIGEN DETECTION, RAPID

<b><u>TEST NAME:</u></b>	STREP A ANTIGEN DETECTION, RAPID
<b><u>CPT CODE:</u></b>	87880
<b><u>SPECIMEN REQUIREMENT:</u></b>	2 throat swabs submitted in culturette.
<b><u>REFERENCE RANGE:</u></b>	Negative
<b><u>METHOD:</u></b>	Lateral flow immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Microbiology
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• No restrictions.</li><li>• STAT on physician request.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	60 minutes
<b><u>GENERAL USE OF TEST:</u></b>	<ul style="list-style-type: none"><li>• Rapid, direct detection of viable and non-viable group A strep antigen.</li><li>• Culture will be automatically ordered and performed on all patients with negative antigen results.</li></ul>
<b><u>PATIENT PREPARATION:</u></b>	None
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• <b>The rapid test is less sensitive as compared to culture in our laboratory.</b></li><li>• <b>This does not differentiate between carriers and those with infection.</b></li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Use a tongue depressor and, with the culturette swab, firmly swab both tonsillar areas and the posterior pharynx.</li><li>• Specimen must be transported to laboratory within 72 hours of collection.</li><li>• <b>Do not use calcium alginate, cotton tipped or wooden shafted swabs.</b></li></ul>
<b><u>STORAGE REQUIREMENTS</u></b>	Store at room temperature until tested; <b>do not refrigerate.</b>

## T3, FREE

<b>TEST NAME:</b>	T3, Free
<b>CPT CODE:</b>	84481
<b>SPECIMEN REQUIREMENT:</b>	00.5 mL serum from 5 mL serum tube.
<b>REFERENCE RANGE:</b>	2.0 pg/mL – 4.4 pg/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Evaluate thyroid function.
<b><u>LIMITATIONS:</u></b>	<ul style="list-style-type: none"><li>• Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</li></ul>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## T3, TOTAL

<b><u>TEST NAME:</u></b>	T3, TOTAL
<b><u>CPT CODE:</u></b>	84480 (TT3)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL plain red top tube.
<b><u>REFERENCE RANGE:</u></b>	80 – 200 ng/dL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Evaluate thyroid function.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>



## T4, TOTAL

<b><u>TEST NAME:</u></b>	T4, TOTAL
<b><u>CPT CODE:</u></b>	84336
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL plain red top tube.
<b><u>REFERENCE RANGE:</u></b>	4.5 – 11.7 µg/dL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Evaluate thyroid function.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## T4, FREE

<b><u>TEST NAME:</u></b>	T4, FREE
<b><u>CPT CODE:</u></b>	84339
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL plain red top tube.
<b><u>REFERENCE RANGE:</u></b>	0.93 1.70 ng/dL
<b><u>METHOD:</u></b>	Chemiluminescent immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Evaluate thyroid function.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 7 days after testing.

## THEOPHYLLINE

**TEST NAME:**

THEOPHYLLINE (AMINOPHYLLINE)

**CPT CODE:**

80198 (THEO)

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL tiger top tube (SST) **OR**  
0.5 mL plasma from a green top tube (heparin).

**REFERENCE RANGE:**

10 – 20 µg/mL

**CRITICAL VALUE:**

>25 µg/mL

**METHOD:**

Kinetic interaction of microparticles in solution (KIMS)

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

- Same shift testing.
- Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.

**GENERAL USE OF TEST:**

Monitor therapeutic drug level.

**PATIENT PREPARATION:**

- *Trough:* Immediately prior to next dose.

- *Peak:*

<u>Route of Administration</u>	<u>Collection Time After Dose</u>
IVP .....	60 min.
Oral (rapid release) .....	2 hrs.
Oral (slow release)	
- Child .....	2 hrs.
- Adult: .....	6 hrs.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 7 days after testing.

## THYROID STIMULATING HORMONE

<b><u>TEST NAME:</u></b>	<b>THYROID STIMULATING HORMONE (Ultrasensitive TSH)</b>
<b><u>CPT CODE:</u></b>	84443 (TSH3)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	0.27 – 4.2 $\mu$ IU/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Differential diagnosis of primary hypothyroidism from secondary hypothyroidism.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## TOBRAMYCIN

<b><u>TEST NAME:</u></b>	<b>TOBRAMYCIN (NEBCIN)</b>
<b><u>CPT CODE:</u></b>	80200: Random
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<i>See Pharmacy</i>
<b><u>CRITICAL VALUE:</u></b>	<i>See Pharmacy</i>
<b><u>METHOD:</u></b>	Immunoassay
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	To monitor antibiotic therapy; test for insufficient or toxic levels of tobramycin.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 3 days after testing.</li></ul>

## TOTAL IRON BINDING CAPACITY

<b><u>TEST NAME:</u></b>	TIBC
<b><u>CPT CODE:</u></b>	83550
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	112 - 225 µg/dL
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily</li></ul>
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Routine, same shift testing.</li><li>• Results of specimens for total iron studies requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of iron metabolism.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is recommended.
<b><u>LIMITATIONS:</u></b>	<b>Contraindicated during iron therapy.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard laboratory procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 3 days after testing.</li></ul>

## TRIGLYCERIDES

<b><u>TEST NAME:</u></b>	TRIGLYCERIDES
<b><u>CPT CODE:</u></b>	84478 (TRIG)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<150 mg/dL
<b><u>METHOD:</u></b>	Enzymatic
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Hyper or hypolipidemia.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is preferred.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## TROPONIN T (High Sensitivity)

<b>TEST NAME:</b>	<b>TROPONIN-T</b>
<b><u>CPT CODE:</u></b>	84484
<b><u>REFERENCE RANGE:</u></b>	< Both Genders <19 ng/L
<b><u>CRITICAL VALUE:</u></b>	$\geq 52$ ng/L <ul style="list-style-type: none"><li>• <b>Due to release kinetics of cardiac Troponin T, an initial result may not be definitive in diagnosing MI. Serial cardiac troponin measurements are suggested.</b></li></ul>
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	<ul style="list-style-type: none"><li>• Daily or STAT</li><li>• Same shift testing.</li></ul>
<b><u>TURNAROUND TIME:</u></b>	STAT specimens will be reported within 30 minutes of receipt in the laboratory.
<b><u>GENERAL USE OF TEST:</u></b>	<p>Cardiac specific marker, which is released after AMI or ischemic damage. In contrast to ST-elevation myocardial infarction (STEMI), the diagnosis of non-ST elevation myocardial infarction (NSTEMI) relies heavily upon elevated cardiac troponin (cTn) concentrations in the appropriate clinical context.</p> <p>ST-elevation myocardial infarction (STEMI), the diagnosis of non-ST</p>
<b><u>INTERPRETATION</u></b>	<ul style="list-style-type: none"><li>• <b>Troponins are released during myocyte necrosis. While they are cardiac specific, they are not specific for MI and detectable levels may be seen in other disease states that involve the heart muscle (e.g. arrhythmia, pericarditis, pulmonary embolism and Takotsubo cardiomyopathy), so that ACC/ESC/AHA guidelines and the Universal Definition of MI recommend serial sampling with a rise or fall in troponin to distinguish between acute and chronic CTN elevations. Results should be interpreted in conjunction with clinical presentation including medical history, signs and symptoms, ECG data and biomarker concentrations.</b></li></ul>



## TROPONIN T (High Sensitivity) continued

### LIMITATIONS:

- In rare cases, interference due to extremely high titers of antibodies to analyte-specific antibodies, streptavidin or ruthenium can occur. For diagnostic purposes, the results should always be assessed in conjunction with the patient's medical history, clinical examination and other findings.

### SPECIMEN PREPARATION:

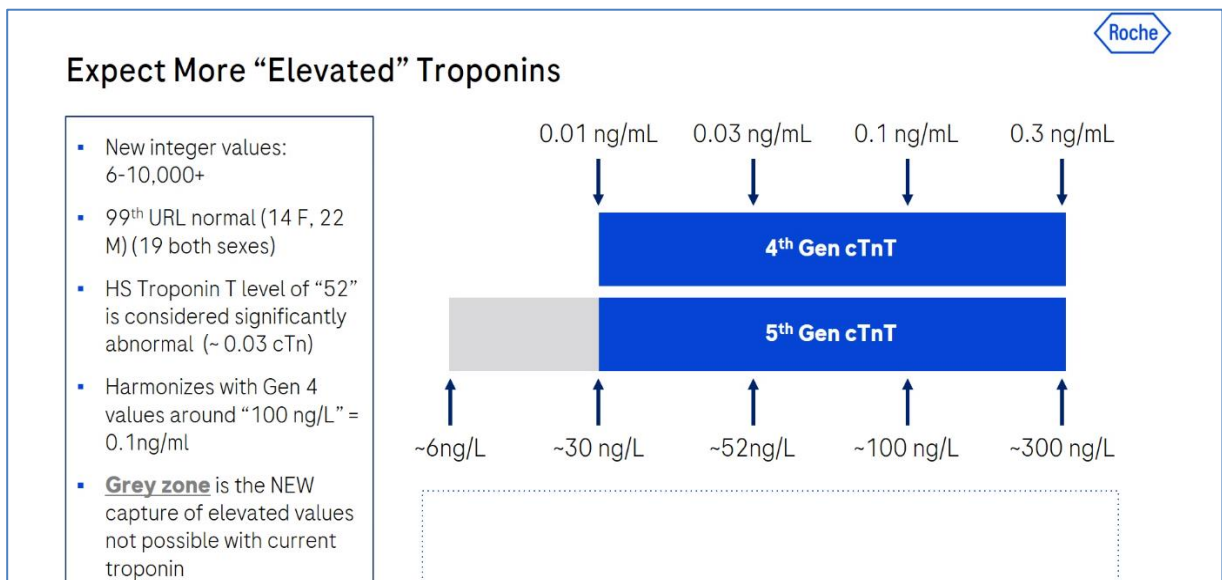
- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate plasma from cells within 2 hours of collection.

### ADD-ON REQUIREMENTS

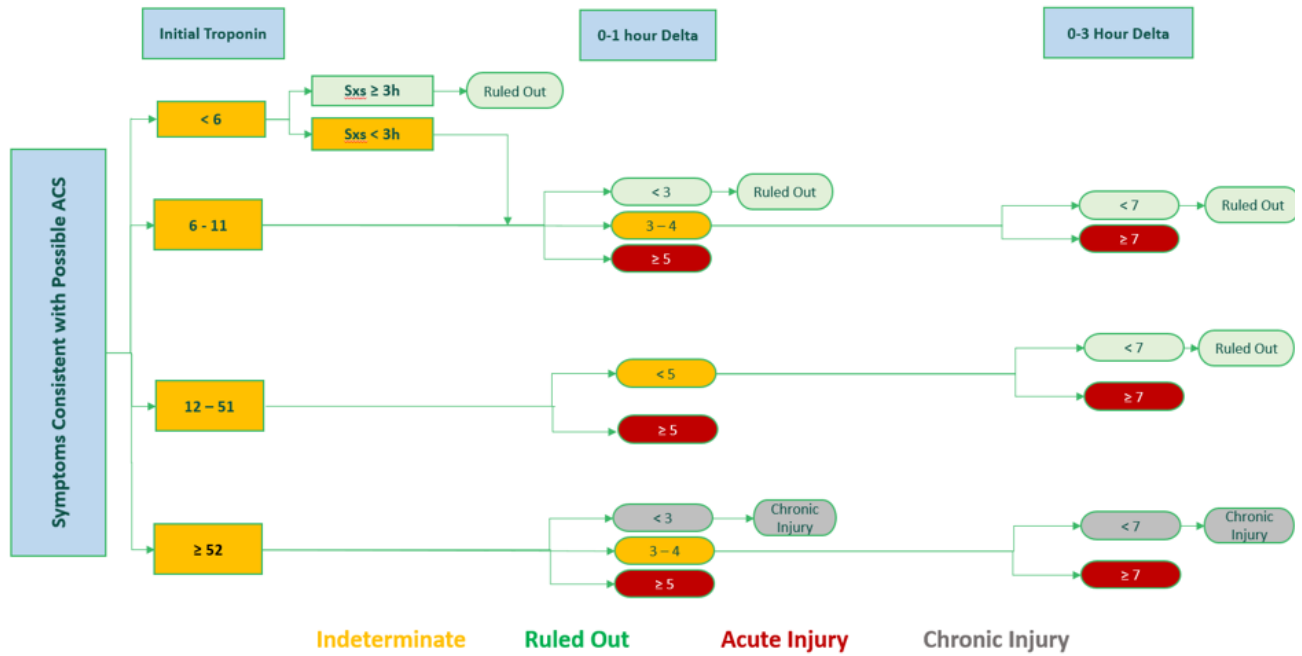
- Specimens may be stored for up to 24 hours at 2° - 8°C.
- Freeze at -20°C or colder for prolonged storage (up to 12 months) prior to analysis.

### ADDITIONAL INFORMATION

#### Comparison of 4<sup>th</sup> and 5<sup>th</sup> Generation Troponin (Roche Diagnostics)

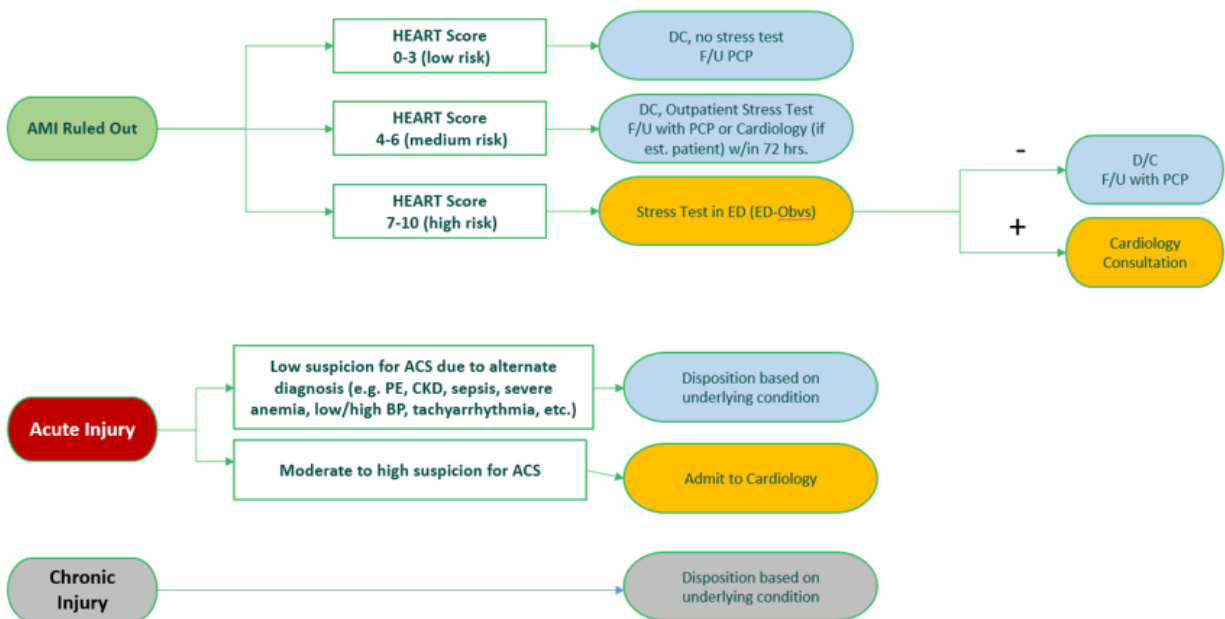


## TROPONIN T (High Sensitivity) continued



ECG done with each troponin. Troponin units ng/L. Disposition requires integration of clinical decision pathway and clinical judgement.

## Disposition Guideline



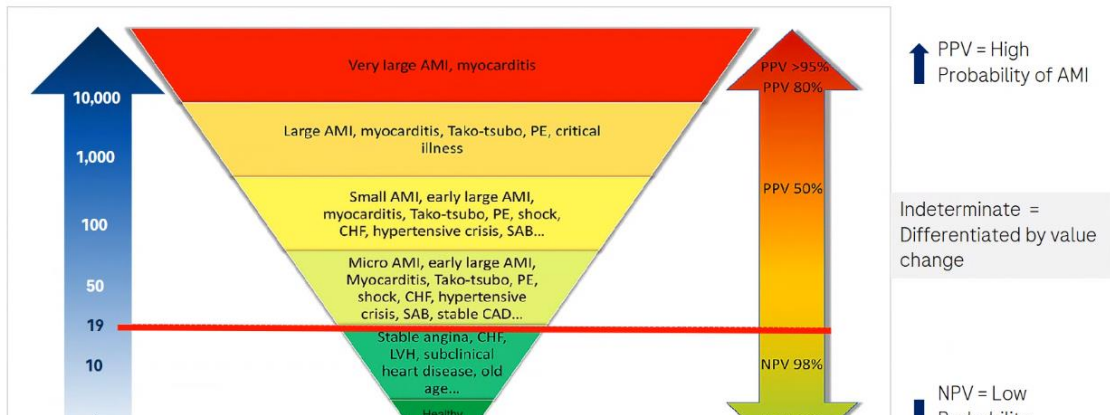
Disposition requires integration of clinical decision pathway and clinical judgement.

# TROPONIN T (High Sensitivity) continued

Interpretive Diagram from Roche Diagnostics



## Quantitative Levels of TnT Gen 5



## UNFRACTIONATED HEPARIN

**TEST NAME:** UNFRACTIONATED HEPARIN, ANTI-Xa

**CPT CODE:** 85520

**SPECIMEN REQUIREMENT:** Plasma from a full blue top tube (sodium citrate).

**REFERENCE RANGE:** 0.3 – 0.7 IU/mL

**CRITICAL VALUE** >1.0 IU/mL

**METHOD:** Photo-Optical

**LAB SECTION PERFORMING TEST:** Hematology

**AVAILABILITY:** Daily

**TURNAROUND TIME:**

- Same shift testing.

**GENERAL USE OF TEST:** Monitoring Therapy with Unfractionated Heparin

**LIMITATIONS:**

- Clotted specimen.
- Improper labeling.
- Specimen greater than 4 hours old.
- Incomplete filling of vacutainer.
- Grossly, hemolyzed, icteric or lipemic specimen.
- Anticoagulant therapy should be noted on requisition.
- Mix immediately after drawing.
- Centrifuge at 3500 g for 10 minutes.
- Remove plasma within 24 hours of venipuncture.

SPECIMEN PREPARATION:

ADD-ON REQUIREMENTS

Samples will be capped and held for 24 hours after testing.

## UREA NITROGEN, BLOOD

<b><u>TEST NAME:</u></b>	UREA NITROGEN, BLOOD
<b><u>CPT CODE:</u></b>	84520 (BUN)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	6 - 23 mg/dL
<b><u>CRITICAL VALUE</u></b>	>104 mg/dL
<b><u>METHOD:</u></b>	Urease UV
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of specimens requested STAT will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluation of kidney function.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 7 days after testing.</li></ul>

## URIC ACID, BLOOD

<b><u>TEST NAME:</u></b>	URIC ACID, BLOOD
<b><u>CPT CODE:</u></b>	84550 (URIC)
<b><u>SPECIMEN REQUIREMENT:</u></b>	0.5 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	<i>Female:</i> 2.4 – 5.7 mg/dL <i>Male:</i> 3.5 – 8.5 mg/dL
<b><u>METHOD:</u></b>	Uricase
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Diagnosis of gout and other metabolic disorders.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum/plasma from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 5 days after testing.</li></ul>

## URIC ACID, URINE

<b><u>TEST NAME:</u></b>	URIC ACID, URINE
<b><u>CPT CODE:</u></b>	84560 Random 24 Hour
<b><u>SPECIMEN REQUIREMENT:</u></b>	Random urine or total 24-hour urine collected with no preservative in a plastic jug obtained from the laboratory.
<b><u>REFERENCE RANGE:</u></b>	24-hour urine: 250 – 750 mg/24 hours
<b><u>METHOD:</u></b>	Colorimetric
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Uric acid metabolism.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• No preservatives necessary.</li><li>• Refrigerate during collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for 4 days after testing at room temperature (15 -25 degrees Celsius upon addition of NaOH).</li><li>• Samples will not be refrigerated after receipt by the Laboratory</li></ul>

## URINALYSIS, ROUTINE

<b><u>TEST NAME:</u></b>	<b>URINALYSIS, ROUTINE</b> (pH, Color, Appearance, Specific Gravity, Protein, Leukocytes, Glucose, Ketone, Nitrite, Urobilinogen, Bilirubin, Hemoglobin and Microscopic if required)
<b><u>CPT CODE:</u></b>	81003
<b><u>SPECIMEN REQUIREMENT:</u></b>	10 mL from a first morning clean catch midstream or catheterized specimen.
<b><u>REFERENCE RANGE:</u></b>	Reference ranges listed on report.
<b><u>METHOD:</u></b>	Chemical reaction using a dipstick.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Evaluate kidney function, endocrine or metabolic disorders.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Submit clean catch midstream urine sample or a catheterized sample in a labeled, sealed container.</li><li>• Samples transferred to collection containers containing boric acid specified for urinalysis is also acceptable.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Refrigerate up to 24 hours before analysis.</li><li>• <b>Specimens left at room temperature for more than 2 hours are unacceptable.</b></li></ul>



## URINE, MICROSCOPIC

<b><u>TEST NAME:</u></b>	URINE, MICROSCOPIC
<b><u>CPT CODE:</u></b>	88108
<b><u>SPECIMEN REQUIREMENT:</u></b>	10 mL from a first morning clean catch mid-stream or catheterized specimen.
<b><u>METHOD:</u></b>	Microscopic examination of urine sediment.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Urinalysis
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of STAT specimens will be reported within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Detection of increased and/or abnormal formed elements.
<b><u>LIMITATIONS:</u></b>	<b>None. This test is included in a routine urinalysis when abnormal dipstick readings are present.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Submit clean catch mid-stream urine sample or a catheterized sample in a labeled sealed container.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Refrigerate up to 24 hours before analysis.</li><li>• Specimens left at room temperature more than 2 hours are unacceptable for assay.</li></ul>

## VALPROIC ACID (DEPAKENE)

<b><u>TEST NAME:</u></b>	VALPROIC ACID (DEPAKENE)
<b><u>CPT CODE:</u></b>	80164 (VALP)
<b><u>SPECIMEN REQUIREMENT:</u></b>	<ul style="list-style-type: none"><li>• 0.5 mL serum from a 5 mL serum tube.</li><li>• <b>Do NOT collect in an SST tube.</b></li></ul>
<b><u>REFERENCE RANGE:</u></b>	50 – 100 µg/mL
<b><u>CRITICAL VALUE:</u></b>	>100 µg/mL
<b><u>METHOD:</u></b>	Enzyme-linked immunosorbent assay (EIA)
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily or STAT
<b><u>TURNAROUND TIME:</u></b>	<ul style="list-style-type: none"><li>• Same shift testing.</li><li>• Results of STAT specimens will be resulting within 60 minutes of receipt in the laboratory.</li></ul>
<b><u>GENERAL USE OF TEST:</u></b>	Monitor therapeutic drug level.
<b><u>PATIENT PREPARATION:</u></b>	<i>Trough:</i> Immediately prior to next dose. <i>Peak:</i> Draw 1 – 3 hours after oral dose.
<b><u>SPECIMEN PREPARATION:</u></b>	<ul style="list-style-type: none"><li>• Collect specimen using standard lab procedures.</li><li>• Centrifuge specimen; separate serum from cells within 2 hours of collection.</li></ul>
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be capped and held for at 7 days after testing.</li></ul>

## VANCOMYCIN

**TEST NAME:**

**VANCOMYCIN  
(VANCOGIN HCI)**

**CPT CODE:**

80202 Random  
Trough  
Peak

**SPECIMEN REQUIREMENT:**

0.5 mL serum from a 5 mL serum tube.

**REFERENCE RANGE:**

*Trough:* 10 – 20.0 µg/mL  
*Peak:* 30.0 – 50.0 µg/mL

**CRITICAL VALUE:**

Trough: > 25 µg/mL  
Peak: > 80 µg/mL

Reference range is based  
on samples drawn 30  
minutes after completion of  
a 60 minute infusion

**METHOD:**

Immunoassay

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily or STAT

**TURNAROUND TIME:**

Same shift testing

**GENERAL USE OF TEST:**

Monitor therapeutic drug levels.

**PATIENT PREPARATION:**

*Trough:* 60 minutes to immediately prior to next dose.  
*Peak:* Draw 2 hours after infusion complete.

**SPECIMEN PREPARATION:**

- Collect specimen using standard lab procedures.
- Centrifuge specimen; separate serum from cells within 2 hours of collection.

**ADD-ON REQUIREMENTS**

- Samples will be capped and held for 48 hours after testing.

## VITAMIN B12

<b><u>TEST NAME:</u></b>	VITAMIN B12
<b><u>CPT CODE:</u></b>	82607
<b><u>SPECIMEN REQUIREMENT:</u></b>	1 mL serum from a 5 mL serum tube.
<b><u>REFERENCE RANGE:</u></b>	211 – 946 pg/mL
<b><u>METHOD:</u></b>	Electrochemiluminescence
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Chemistry
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing
<b><u>GENERAL USE OF TEST:</u></b>	Megaloblastic anemia, dietary deficiency.
<b><u>PATIENT PREPARATION:</u></b>	Fasting is preferred.
<b><u>LIMITATIONS:</u></b>	<b>Patients who have been regularly exposed to animals or immunoglobulin fragments may produce antibodies that interfere with immunoassays.</b>
<b><u>SPECIMEN PREPARATION:</u></b>	Centrifuge and separate serum or plasma from cells immediately after collection.
<b><u>ADD-ON REQUIREMENTS</u></b>	<ul style="list-style-type: none"><li>• Samples will be held for at least 24 hours after testing.</li></ul>

## VITAMIN D

**TEST NAME:**

VITAMIN D

**CPT CODE:**

82306

**SPECIMEN REQUIREMENT:**

1 mL serum from a 5 mL Serum Separator Tube (SST).

**REFERENCE RANGE:**

30 – 100 ng/mL  
Total fecal  
Vitamin D Reference Range,  
accordant with the Endocrine Society Clinical Guideline  
(units of measure ng/mL)

Deficient <20 ng/mL  
Insufficient 20 - <30 ng/mL  
Sufficient 30 – 100 ng/mL  
Potential Toxicity >100 ng/mL

**METHOD:**

Electrochemiluminescence

**LAB SECTION PERFORMING TEST:**

Chemistry

**AVAILABILITY:**

Daily

**TURNAROUND TIME:**

Same shift

**GENERAL USE OF TEST:**

Vitamin D is important for general bone health. Vitamin D deficiency (less than 10 ng/mL) is characterized by muscle weakness, bone pain and fragility fractures.

**PATIENT PREPARATION:**

None

**LIMITATIONS:**

**The effect of heterophilic antibodies on this assay's performance has not been evaluated.**

**SPECIMEN PREPARATION:**

Centrifuge and separate serum from cells immediately after collection.

**ADD-ON REQUIREMENTS**

Specimens will be capped and held for 4 days after testing.

## WHITE BLOOD CELLS (WBC) STOOL

<b><u>TEST NAME:</u></b>	WHITE BLOOD CELLS (WBC) STOOL
<b><u>CPT CODE:</u></b>	87205
<b><u>SPECIMEN REQUIREMENT:</u></b>	3 mL of fresh random stool specimen in a plastic screw top container.
<b><u>REFERENCE RANGE:</u></b>	No WBCs observed.
<b><u>METHOD:</u></b>	Microscopic examination of modified Wright's Giemsa stained smears.
<b><u>LAB SECTION PERFORMING TEST:</u></b>	Hematology
<b><u>AVAILABILITY:</u></b>	Daily
<b><u>TURNAROUND TIME:</u></b>	Same shift testing.
<b><u>GENERAL USE OF TEST:</u></b>	Differential diagnosis of diarrheal conditions.
<b><u>ADD-ON REQUIREMENTS</u></b>	Samples will be capped and held for 3 days after testing.