

## Critical Values

The values listed below are for tests performed at Meriter Laboratories (ML). It is ML's policy to telephone these results to a member of the patient's care team. For testing performed outside of ML, Meriter will call a member of the patient's care team with any calls/results received from the performing reference laboratory.

Within a ML report, numerical value outside of the reference range are indicated by an "L" (low) or a "H" (high) to the right of the result number. If a value is considered critical, the letter "C" will precede the "L" or "H". An abnormal textual result is indicated by an "AB" (abnormal) to the right of the result.

| Analyte                                                       | Critically Low Value | Critically High Value |
|---------------------------------------------------------------|----------------------|-----------------------|
| Acetaminophen (Tylenol®)                                      |                      | ≥50 mcg/mL            |
| Acetone                                                       |                      | >5 mg/dL              |
| Activated Partial Thromboplastin Time (APTT), Blood or Plasma |                      | >200.0 seconds        |
| Alcohol (Medical/Non-Legal), Plasma                           |                      | ≥300 mg/dL            |
| Amikacin, Peak, Plasma                                        |                      | >35.0 mcg/mL          |
| ≥18 years                                                     |                      |                       |
| Amikacin, Trough, Plasma                                      |                      | >5.0 mcg/mL           |
| ≥18 years                                                     |                      |                       |
| Amitriptyline and Nortriptyline                               |                      | ≥300 ng/mL            |
| Amylase, Plasma                                               |                      | ≥400 U/L              |
| Bilirubin, Total, Plasma                                      |                      |                       |
| ≤2 Days                                                       |                      | ≥12.0 mg/dL           |
| 3 Days - ≤7 days                                              |                      | ≥15.0 mg/dL           |
| >7 days                                                       |                      | ≥10.0 mg/dL           |
| Blood Urea Nitrogen (BUN), Plasma                             |                      | ≥100 mg/dL            |
| Calcium, Ionized, Plasma                                      | ≤0.85 mmol/L         | ≥1.40 mmol/L          |
| Calcium, Plasma                                               | ≤6.0 mg/dL           | ≥13.0 mg/dL           |
| Calcium, Serum                                                | ≤6.0 mg/dL           | ≥13.0 mg/dL           |
| Carbamazepine (Tegretol®), Plasma                             |                      | ≥15 mcg/mL            |
| Carbon Monoxide (CO), Carboxyhemoglobin, Venous               |                      | ≥20.0% of CO Hb2      |
| Creatine Kinase (CK), Total, Plasma                           |                      | ≥ 400 U/L             |

| Analyte                                      | Critically Low Value | Critically High Value              |
|----------------------------------------------|----------------------|------------------------------------|
| Creatinine, Plasma                           |                      | ≥ 10.0 mg/dL                       |
| Creatinine, Whole Blood                      |                      | ≥ 10.0 mg/dL                       |
| Cord Blood Gases, pH                         | ≤ 7.15               |                                    |
| Cord Blood Gases, Base Deficit               | ≥ 10.0               |                                    |
| Digoxin, Plasma                              |                      | ≥ 2.5 ng/mL                        |
| Ethylene Glycol                              |                      | > 2 mg/dL                          |
| Gentamicin, Peak, Plasma                     |                      | ≥ 12.0 mcg/mL                      |
| Gentamicin, Trough, Plasma                   |                      | ≥ 3.0 mcg/mL                       |
| Glucose, Plasma                              |                      |                                    |
| ≤ 3 months                                   | ≤ 35 mg/dL           | ≥ 325 mg/dL                        |
| > 3 months - ≤ 1 year                        | ≤ 45 mg/dL           | ≥ 450 mg/dL                        |
| > 1 year                                     | ≤ 69 mg/dL           | ≥ 450 mg/dL                        |
| Glucose, Whole Blood                         |                      |                                    |
| ≤ 3 months                                   | ≤ 35 mg/dL           | ≥ 325 mg/dL                        |
| > 3 months - ≤ 1 year                        | ≤ 45 mg/dL           | ≥ 450 mg/dL                        |
| > 1 year                                     | ≤ 69 mg/dL           | ≥ 450 mg/dL                        |
| Glucose, Meter Correlation (GLMTR)           | Difference of ≥ 15%  |                                    |
| Hematocrit, Blood                            | ≤ 21.0%              |                                    |
| Hemoglobin, Blood                            | ≤ 7.0 g/dL           | ≥ 20 g/dL                          |
| ≤ 30 days                                    | ≤ 7.0 g/dL           | ≥ 24.0 g/dL                        |
| Heparin Induced Platelet Antibody, Plasma    |                      | All positive or borderline results |
| Imipramine and Desipramine                   |                      | ≥ 300 ng/mL                        |
| INR (Prothrombin Time [PT]), Blood or Plasma |                      | ≥ 4.5                              |
| Isopropanol                                  |                      | > 5 mg/dL                          |
| Lactate, Arterial                            |                      | > 4.0 mmol/L                       |
| Lactate, Venous                              |                      | > 4.0 mmol/L                       |
| Lithium, Serum                               |                      | ≥ 2.0 mmol/L                       |
| Magnesium, Plasma                            | ≤ 1.0 mg/dL          | ≥ 8.0 mg/dL                        |
| Magnesium, OB                                | ≤ 1.0 mg/dL          | ≥ 9.1 mg/dL                        |
| Methanol                                     |                      | > 10 mg/dL                         |
| Nortriptyline                                |                      | ≥ 300 ng/mL                        |

| Analyte                              | Critically Low Value | Critically High Value |
|--------------------------------------|----------------------|-----------------------|
| Osmolality, Plasma or Serum          | ≤240 mOsm/kg         | ≥340 mOsm/kg          |
| pH, Venous                           | <7.25                | >7.65                 |
| Phenobarbital, Plasma                |                      | ≥50 mcg/mL            |
| Phenytoin (Dilantin®), Total, Plasma |                      | ≥30 mcg/mL            |
| Phenytoin, Unbound, Serum            |                      | >3.0 mcg/mL           |
| Phosphorus, Plasma                   |                      |                       |
| ≤10 days                             | ≤1.0 mg/dL           | ≥12.0 mg/dL           |
| >10 days                             | ≤1.0 mg/dL           | ≥8.0 mg/dL            |
| Platelet Count, Blood                | ≤25 thou/μL          | ≥1,000 thou/μL        |
| Potassium, Plasma                    | ≤2.8 mmol/L          | ≥6.0 mmol/L           |
| Potassium, Serum                     | ≤2.8 mmol/L          | ≥6.0 mmol/L           |
| Potassium, Whole Blood               | ≤2.8 mmol/L          | ≥6.0 mmol/L           |
| Salicylate, Plasma                   |                      | ≥50 mg/dL             |
| Sodium, Plasma                       | ≤120 mmol/L          | ≥155 mmol/L           |
| Tacrolimus, Whole Blood              |                      | >15 ng/mL             |
| Theophylline, Plasma                 |                      | ≥20 mcg/mL            |
| Thiopental, Serum                    |                      | >5.0 mg/dL            |
| Thiopental Pentobarbital             |                      | 1.0-2.0 mg/dL         |
| Troponin T Gen 5 (High Sensitivity)  |                      | >100 ng/L             |
| Tobramycin, Peak, Plasma             |                      | ≥10.0 mcg/mL          |
| Tobramycin, Trough, Plasma           |                      | ≥3.0 mcg/mL           |
| Valproate, Unbound, Serum            |                      | >150.0 mcg/mL         |
| Valproate (Valproic Acid), Plasma    |                      | ≥150.0 mcg/mL         |
| Vancomycin, Mid-Point, Plasma        |                      | ≥50.0 mcg/mL          |
| Vancomycin, Peak, Plasma             |                      | ≥60.0 mcg/mL          |
| Vancomycin, Random, Plasma           |                      | ≥50.0 mcg/mL          |
| Vancomycin, Trough, Plasma           |                      | ≥20.0 mcg/mL          |
| WBC (White Blood Count), Blood       | <1.0 thou/μL         | >50.0 thou/μL         |

## Microbiology

For certain serious bacterial infections, speed in initiating proper antibiotic therapy can significantly influence the course of the disease. As soon as the laboratory becomes aware of a serious or potentially serious infection fitting the circumstances below, the physician or source facility will be telephoned.

| Critical Result                                                        |                                                                                                      |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Blood Culture                                                          | All positive cultures                                                                                |
| Cerebrospinal Fluid                                                    | All bacteria or fungi detected by Gram Stain, culture, first positive antigen, or molecular testing. |
| Sterile body fluids/sites (eg, joint, pericardial, or tissue biopsies) | All bacteria or fungi detected by Gram Stain, culture, first positive antigen, or molecular testing. |

**Other important pathogens will be reported by telephone when detected, unless patient is already flagged for appropriate isolation. Even though they may not cause life-threatening infections, they may require Isolation Precautions or change in treatment and are to be reported to the physician.**

\*\*For Lafayette Hospital, after hours calls can be left on the secure voicemail.

### These include:

|                                                           |                                                                                                                                                                                                               |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Feces – Except ED discharged                              | Positive <i>Clostridium difficile</i><br>Positive <i>Escherichia coli</i> O157 or positive Shiga toxin EIA tests<br><i>Salmonella</i><br><i>Shigella</i><br><i>Campylobacter</i><br>Positive <i>Norovirus</i> |
| Multi-resistant organisms isolated – Except ED discharged | Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)<br>Vancomycin resistant <i>Enterococcus</i> (VRE)<br>MDR Gram negative rods<br>Carbapenamase resistant gram-negative rods                           |
| Nasopharyngeal- Inpatients or Resident Facilities         | Positive pertussis tests, respiratory syncytial virus (RSV), or influenza.                                                                                                                                    |
| <i>Legionella</i>                                         | All positive results regardless of source                                                                                                                                                                     |