Call-Back Critical Value Levels

When the results of any test fall into the range of “critical test values” listed below, a technologist will call the results to the in-patient’s nursing station, indicating to them that this is a “critical test value” and that the physician must be notified immediately. When a “critical test value” is encountered for an out-patient, the patient’s physician is called by a technologist. Microbiology vital test results are significant results which are not necessarily life threatening but information about them should reach the caregiver so that timely intervention may be assured (these results are also called).

### Test Low High

**Blood Bank**
- Positive DAT on newborns (the nursing unit may be notified instead of the physician)
- Positive results of compatibility test on blood given uncrossmatched.
- Clerical discrepancies or positive results of tests performed for transfusion reactions.
- Presurgical patients with unexpected significant antibodies.
- No compatible units of blood available.
- Significant titers of IgG antibodies in OB patients.
- When ABO group compatible units are unavailable.
- When Rh negative units are unavailable for Rh negative patients.
- Patients crossmatched with least compatible blood.
- If their patient has received a component which subsequently tests positive for HIV or HTLV.

**Chemistry**
- Albumin, Serum <1.0 g/dL None
- Bilirubin, Neonatal, Serum None >15.0 mg/dL
- Bilirubin, Cord Blood >1.5 mg/dL
- Bilirubin, Unconjugated >20.0 mg/dL
- Arterial pH <7.2 pH Units >7.6 pH Units
- Arterial pCO₂ <20 mm Hg >70 mm Hg
- Arterial pO₂ <40 mm Hg None
- Methemoglobin >15%
- Capillary pH <7.2 pH Units >7.6 pH Units
- Capillary pCO₂ <20 mm Hg >66 mm Hg
- Capillary pO₂ <20 mm Hg >100 mm Hg
- Venous pH <7.2 pH Units >7.6 pH Units
- Calcium, Ionized, Serum or Whole Blood <0.75 mmol/L >1.63 mmol/L
- Calcium, Total, Serum <6.0 mg/dL >13.0 mg/dL
- Carbon Dioxide, Serum <10 mEq/L >40 mEq/L
- Carbon Monoxide, Blood None >20.0%
- Creatinine, Serum None >7.5 mg/dL
- Glucose, 2-Hour Post-Prandial, Plasma or Serum <40 mg/dL >500 mg/dL
- Glucose, Newborns, Qualitative, Urine Positive
- Glucose, Plasma or Serum <40 mg/dL >500 mg/dL
- Lactose Tolerance, Plasma <40 mg/dL >500 mg/dL
- Magnesium, Serum <1.0 mg/dL >4.5 mg/dL
- Potassium, Plasma or Serum 0-2 days <2.8 mEq/L >7.7 mEq/L
- 2-14 days <2.8 mEq/L >6.4 mEq/L
- >14 days <2.8 mEq/L >6.2 mEq/L
- Sodium, Serum <120 mEq/L >160 mEq/L
- T4 (Thyroxine), Free, Serum <0.1 ng/mL >6.0 ng/mL
- T4 (Thyroxine), Total Only, Serum <1.1 μg/dL >25.3 μg/mL
- Urea Nitrogen (BUN), Serum None >100 mg/dL
Coagulation

<table>
<thead>
<tr>
<th>Test</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated Partial Thromboplastin Time (APTT), Plasma</td>
<td>None</td>
<td>115 seconds</td>
</tr>
<tr>
<td>Fibrinogen, Plasma</td>
<td>&lt;100 mg/dL</td>
<td>None</td>
</tr>
<tr>
<td>International normalized ratio (INR)</td>
<td>None</td>
<td>&gt;5.0</td>
</tr>
<tr>
<td>Heparin (Anti-Xa)</td>
<td>None</td>
<td>&gt;0.7 IU/mL</td>
</tr>
<tr>
<td>LMWH</td>
<td>None</td>
<td>&gt;1.2 IU/mL</td>
</tr>
</tbody>
</table>

Hematology

<table>
<thead>
<tr>
<th>Test</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematocrit, Blood</td>
<td>&lt;18%</td>
<td>&gt;60%</td>
</tr>
<tr>
<td>Hematocrit, Newborn, Blood</td>
<td>&lt;25%</td>
<td>&gt;75%</td>
</tr>
<tr>
<td>Hemoglobin, Blood</td>
<td>&lt;6.0 g/dL</td>
<td>&gt;20.0 g/dL</td>
</tr>
<tr>
<td>Hemoglobin, Newborn, Blood</td>
<td>&lt;8.0 g/dL</td>
<td>&gt;25.0 g/dL</td>
</tr>
<tr>
<td>Platelet Count, Blood</td>
<td>&lt;30 x 10^3/uL</td>
<td>&gt;1000.0 x 10^3/uL</td>
</tr>
<tr>
<td>White Blood Cell (WBC) Count, Blood</td>
<td>&lt;1.0 x 10^3/uL</td>
<td>&gt;50.0 x 10^3/uL</td>
</tr>
<tr>
<td>Positive malarial preps</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Microbiology Critical Values

Positive blood cultures – First positive set per 24 hour per morphotype except Gram Positive cocci which must be called on each bottle and accession.
Positive CSF (Cerebrospinal Fluid) LP or Shunt Gram Stain and Culture
Positive CSF for Cryptococcus (India Ink)
Positive Blood or CSF culture for Neisseria meningitides or Haemophilus influenza
Positive Gram Stain for:
   - CSF
   - Ventricular Fluid
   - Pleural Fluid
   - Synovial Fluid
   - Vitreous Fluid
   - Pericardial Fluid
   - Amniotic Fluid
   - Suprapubic Fluid
   - Culdocentesis
   - Ascites Fluid

Microbiology Vital Test Results

All Positive Cultures for Group A Strep (Strep pyogenes)
All Positive FLU
Positive Gram Stain and/or culture from tissues from normally sterile sites (example: brain, liver, heart)
Positive smear or culture on Body fluids and aspirates from normally sterile sites
Positive surgical site gram stain and/or culture
Positive AFB smears
Positive AFB cultures
Positive AFB cultures for MTB
Positive wound culture for Clostridia
MRSA positive cultures
Vancomycin resistant Enterococcus (VRE) and Staph aureus
Positive cultures for ESBL
Positive CDIFF toxin
Positive Fungal Culture for Dimorphic molds, Nocardia and Actinomyces
Eye Culture Gram Stain showing Gram Negative Rods
Positive Eye Culture for Pseudomonas aeruginosa
Positive Stool Cultures for:
   - Salmonella
   - Aeromonas
   - Shigella
   - Vibrio
   - Campylobacter
   - Yersinia
   - Pleisomonas
   - E. Coli O157
Positive E. coli O157 antigen
Positive culture for Neisseria gonorrhoeae
Positive Ova and Parasite
Positive Giardia Antigen
Positive RSV Antigen
Positive Cryptosporidium
Multi-drug resistant GNR (i.e., resistant to several classes of antibiotics)

**Urinalysis**
- Glucose in newborns: None, Positive
- Reducing substances in newborns: None, Positive