

Call-Back Critical Values

A critical value is a result at such variance with normal that it may be life threatening, unless something is done promptly. It is laboratory policy to call all critical value results to the ordering physician or healthcare provider 24-hours a day, 7 days a week.

HEMATOLOGY

Test	Low	High
Hematocrit	<22.0%	>60.0%
Hematocrit, Cord Blood	<35.0%	
Hematocrit, Neonatal (0 – 7 days)	<22.0%	>70.0%
Hemoglobin	<7.0 g/dL	>20.0 g/dL
Hemoglobin, Cord Blood	<8.0 g/dL	>23.0 g/dL
WBC Count	<2.0 x 10 ³ /μL	>30.0 x 10 ³ /μL
WBC Count, Neonatal (0 – 7 days)	<5.0 x 10 ³ /μL	>35.0 x 10 ³ /μL
Platelet Count	<20	>1,000,000
Platelet Count Neonatal (0 – 7 days)	<50	>1,000,000
Absolute Neutrophil Count	<0.5	
APTT		>110 SECONDS
APTT Neonatal (0 – 7 days)		>70 seconds
Fibrinogen	<70 mg/dL	>700 mg/dL
INR		≥5.0
Prothrombin Time (PT)		>50.9
PT Neonatal (0 – 7 days)		>16 seconds

CHEMISTRY

Test	Low	High
Ammonia		>50 μmol
Amylase		>300 U/L
Bilirubin, Total		>15 mg/dL
Bilirubin, Unconjugated, Cord Blood		>1.5 mg/dL
BUN (Blood Urea Nitrogen) Serum		>100 mg/dL
Calcium, Serum		>12.0 mg/dL
Chloride, Serum	<85 mmol/L	>115 mmol/L
CK		1,000 U/L
CO ₂ (Carbon Dioxide), Serum	<10 mmol/L	>40 mmol/L
Creatinine, Neonatal, Serum		>2.0 mg/mL
Creatinine, Serum		>7.4 mg/dL
Glucose, CSF	<40 mg/dL	>400 mg/dL
Glucose, Neonatal, CSF	<24 mg/dL	
Glucose, Serum	<30 mg/dL (6 months-7years) <40 mg/dL (7 years-17 years)	>300 mg/dL (<18 years) >400 mg/dL (>18 years)
Glucose, Urine		>500 mg/dL
Magnesium, Serum	<1.2 mg/dL	>5.0 mg/dL
Osmolality, Serum	<200 mOsm/kg	>350 mOsm/kg

CHEMISTRY (Continued)

Test	Low	High
O'Sullivan Glucose	<50 mg/dL	>400 mg/dL
Phosphorus, Serum	<1.0 mg/dL	
Potassium, Neonatal, Serum	<2.5 mmol/L	>7.0 mmol/L
Potassium, Serum	<3.0 mmol/L	>6.0 mmol/L
Protein, CSF		>100 mg/dL
Sodium, Neonatal, Serum	<125 mmol/L	>150 mmol/L
Sodium, Serum	<120 mmol/L	>160 mmol/L
Uric Acid, Serum		>13.0 mg/dL
Urine Toxicology, Neonatal	All Positives	

DRUG LEVELS

Acetaminophen		>150 µg/mL
Alcohol		>80 mg
Digoxin		>1.5 ng/mL
Dilantin (Phenytoin)		>40 µg/mL
Gentamicin		>12 µg/mL
Lithium		?2.0 mmol/L
Phenobarbital		>60 µg/mL
Salicylate		>30 mg/dL
Tegretol		>20 µg/mL
Valproic Acid		>200 µg/mL
Vancomycin, Peak		>40 mg/mL
Vancomycin, Trough		>15 mg/mL
Theophylline		>25 µg/mL
Theophylline, Neonatal (Peak & Trough)		>20 µg/mL

MISCELLANEOUS

Test	Critical Result
Rapid Strep Screen	All positives
Bacterial Meningitis Screen	All positives
Drug Levels, Send-Outs	All critical values reported from reference laboratory
Malaria	All positives
Respiratory Syncytial Virus (RSV)	All positives
Send out Tests	All critical values reported from reference laboratory
Toxicology Screen, Neonatal, Meconium	All positives

MICROBIOLOGY

Test	Critical Result
Blood Cultures	Initial Positive Gram Stain
Bone Marrow	All positive cultures
CSF Culture	All positive cultures
CSF Gram Stain	All positive Gram Stains
CSF India Ink	Positive, suggestive of Cryptococcus (neoformans) gattii

MICROBIOLOGY (Continued)

Test	Critical Result
Gastric Aspirate, Neonatal	All positive cultures
Genital Cultures	All positive Group B Strep, in-patients only
Cultures	All positive cultures for: Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) Any confirmed Vancomycin resistance Any Vancomycin-intermediate MRSA Any Penicillin-resistant <i>Streptococcus pneumoniae</i> <i>Bacillus anthracis</i>, <i>Bacillus cereus</i> <i>Bordetella pertussis</i> <i>Campylobacter</i> species <i>Clostridium botulinum</i>/<i>Clostridium tetani</i> <i>Corynebacterium diphtheriae</i> <i>Cyclospora</i> species <i>Escherichia coli</i> O157:H7 <i>Francisella tularensis</i> <i>Neisseria gonorrhoeae</i>, <i>Chlamydia trachomatis</i> <i>Haemophilus influenzae</i> sterile site in child <15 yrs old <i>Listeria</i> species <i>Mycobacterium tuberculosis</i> <i>Neisseria meningitidis</i>, all sites <i>Salmonella</i> species <i>Shigella</i> species <i>Streptococcus pyogenes</i>, sterile site, and throat <i>Vibrio</i> species <i>Yersinia</i> species <i>Aeromonas</i> (stool) <i>Plesiomonas</i> (stool) All positive parasites

BLOOD BANK CRITICAL RESULTS

1. Irradiation of Blood Products Significant delays in irradiating Transfusion of non-irradiated blood/blood products when indicated
2. Kleihauer Betke Any blood
3. Positive Antibody Screen STAT transfusion requires immediate notification and appropriate follow-up. When there will be a delay of 4 or more hours for provision of antigen-negative blood for transfusion Transfusion of antigen-positive blood when patient has a history of corresponding antibody
4. Significant Delays in Flood or Blood Products From the Local Blood Provider Antigen-negative blood from Dedham, MA HLA-matched platelets Deglycerolized blood Factor VII, IX
5. Transfusion Reactions Hemolytic transfusion reactions

Delayed hemolytic transfusion reactions
6. Transfusion-transmitted Infection Notification from blood supplier