

Critical Value Reporting

To assist in prompt patient treatment, a medical laboratory scientist will call critical values as soon as the result is available and verified. Note that per JCAHO protocol, laboratory staff must record the name of the person to whom they provide critical data and this person must repeat back (read back) the results so the laboratory caller can verify the information has been accurately communicated. Results that are abnormal, but not critical, are not routinely called. Munson Healthcare Laboratories have established the following critical values for the tests listed below. Critical values for patients less than 2 months of age are listed in a separate table on page 2.

Critical Values	
Tests	Critical Values
Acid-Fast Smear	All positives
Anti-Xa	>1.00 IU/mL
Arterial Blood Gases, Blood pH pCO ₂ pO ₂	<7.20 pH units or >7.60 pH units <20 mm/Hg or >70 mm/Hg <40 mm/Hg
Bicarbonate (HCO ₃), Plasma or Serum	<12 mmol/L
Bicarbonate (TCO ₂), Plasma or Serum	<12 mmol/L
Bilirubin, Total, Plasma or Serum (newborn)	>16 mg/dL
Calcium, Total, Plasma or Serum	<5.0 mg/dL or >13.0 mg/dL
Carbamazepine, Total, Serum	>15 µg/mL
<i>Cryptococcus</i> Antigen, Serum or Spinal Fluid	Positive
Culture, Blood	All positives
Culture, <i>Mycobacterium</i> (Acid-Fast Bacillus [AFB])	All positives
Culture, Pleural Fluid	All positives
Culture, Spinal Fluid	All positives
Culture, Synovial Fluid	All positives
Digoxin, Plasma or Serum	>2.5 ng/mL
Glucose, Bedside, Point of Care, Whole Blood	<20 mg/dL or >500 mg/dL
Glucose, Fasting, Plasma or Serum	<50 mg/dL or >600 mg/dL
Glucose, Random, Plasma or Serum	<50 mg/dL or >600 mg/dL
Glucose, Spinal Fluid	<40 mg/dL or >500 mg/dL
Glucose Tolerance Gestational 3-Hour	<50 mg/dL or >600 mg/dL
Glucose Tolerance Non-Gestational	<50 mg/dL or >600 mg/dL
Gram Stain	Positive for blood, pleural fluid, spinal fluid, or synovial fluid
Hemoglobin, Blood	<7.0 g/dL
INR, Plasma	>4.9
Lactic Acid, Venous	>4.0 mmol/L
Lithium, Serum	>2.0 mmol/L
Magnesium, Plasma or Serum	<1.0 mg/dL or >6.9 mg/dL
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Critical Value Reporting, cont.

Critical Values, cont.	
Tests	Critical Values
Malaria Smear	All positives
Partial Thromboplastin Time (PTT), Activated, Plasma	>159 seconds
pCO ₂ , venous	<20 mm/Hg or >70 mm/Hg
pH, venous	<7.20 pH units or >7.60 pH units
Phenobarbital, Plasma or Serum	>60 µg/mL
Phenytoin, Plasma or Serum	>30 µg/mL
Phosphorus, Plasma or Serum	<1.0 mg/dL
Platelet Count, Automated, Blood	<20 K/µL
Platelet Count, Manual, Blood	<20 K/µL
Potassium, Plasma or Serum	<2.5 mmol/L or >6.5 mmol/L
Sodium, Plasma or Serum	<120 mmol/L or >160 mmol/L
Theophylline, Plasma or Serum	>30 µg/mL
Troponin I, plasma	>0.1 ng/mL (First value in cardiac series; excludes values obtained on point of care instruments)
Valproic Acid, Plasma or Serum	>200 µg/mL

Critical Values for Neonates <2 months of age

Critical Values for Neonates <2 months of age	
Tests	Critical Values
Ammonia	>150 µmol/L
ALT (Alanine aminotransferase)	>55 U/L
AST (Aspartate aminotransferase)	>75 U/L
Bilirubin, total	>16.0 mg/dL
BUN (Blood urea nitrogen)	>30 mg/dL
Caffeine	>20 µg/mL
Calcium	<6.0 mg/dL or >13.0 mg/dL
Fibrinogen	<200 mg/dL
GGT (Gamma glutamyltransferase)	>150 U/L
Hemoglobin	<7.0 g/dL
Hematocrit	<20% and >70%
INR	>1.6
LD (Lactate dehydrogenase)	>300 U/L
Lactic Acid	>2.5 mmol/L
Partial Thromboplastin Time (PTT), Activated	>80 seconds
Phenobarbital	>50 µg/mL
Phosphorous	<3.5 mg/dl or >9.0 mg/dL
Platelet count	<50 K/ µL
pH	<7.20 or >7.50 units
pO ₂	<30 mm/Hg
Potassium	<2.5 mmol/L or >6.5 mmol/L
Sodium	<130 mmol/L or >160 mmol/L