

Critical Value and Toxic Concentration List

<i>Results are called to a licensed caregiver with read-back of results.</i>		
Chemistry/Special Chemistry Departments		
Acetaminophen		>200 µg/mL
Bilirubin, Total (Infants)		≥15.0 mg/dL
BUN (Blood Urea Nitrogen)		≥104 mg/dL
Calcium, Total	≤6.0 mg/dL	≥13.0 mg/dL
Calcium, Ionized	≤3.1 mg/dL	≥6.3 mg/dL
Carbamazepine (Tegretol®)		>15 µg/mL
Carbon Dioxide (CO ₂)	≤10 mEq/L	≥40 mEq/L
Carbon Monoxide		>20%
Chloride	≤75 mEq/L	≥126 mEq/L
Creatinine		>7.5 mg/dL
Digoxin		>2.0 ng/mL
Gentamicin, Peak		>10.0 µg/mL
Gentamicin, Trough		>2.0 µg/mL
Glucose		
Newborn	≤50 mg/dL	≥200 mg/dL
<1 year	≤50 mg/dL	≥200 mg/dL
>1 year	≤50 mg/dL	≥450 mg/dL
HCO ₃	≤10 mmol/L	≥40 mmol/L
Lead		>10 µg/mL
Lithium		≥1.3 mmol/L
Magnesium	≤1.0 mg/dL	≥5.0 mg/dL
pCO ₂	≤20 mm Hg	≥70 mm Hg
pH	≤7.20 pH units	≥7.60 pH units
Phenobarbital		>60 µg/mL
Phenytoin		>40 µg/mL
Phosphorous	≤1.0 mg/dL	≥8.9 mg/dL
pO ₂	≤45 mm Hg	
Potassium	≤2.8 mEq/L	≥6.2 mEq/L

Chemistry/Special Chemistry Departments		
Salicylate		>30 mg/dL
Sodium		
>1 year old	≤120 mEq/L	≥160 mEq/L
<1 year old	≤125 mEq/L	≥150 mEq/L
Tobramycin, Peak		>16 µg/mL
Tobramycin, Trough		>2 µg/mL
Troponin I		>0.3 ng/mL
Valproic Acid		>150 µg/mL
Vancomycin		>20 µg/mL
Coagulation and Hematology Department		
Differential		Presence of any blasts
Hematocrit	<21%	>64%
Newborn	<29%	>74%
Hemoglobin	<6.7 g/dL	>24.0 g/dL
Newborn	<9.0 g/dL	>28.0 g/dL
Platelet Count	<50 K/mm ³	>999 K/mm ³
Protime, Screen		>2.7 INR
Protime, Therapeutic		>6.9 INR
PTT, Screen		>119 seconds
PTT, Therapeutic		>179 seconds
White Blood Cell Count (WBC)	<1.1 K/mm ³	>34.0 K/mm ³
Newborn	<5.1 K/mm ³	>39.0 K/mm ³
Blood Bank Department Inadequate blood supply to meet patient's needs Detection of antibodies that may cause transfusion delay Hemolytic transfusion reaction Transfusion before crossmatch complete Bacterial contamination		

Microbiology Department

Positive results on:

Gram stain on spinal fluid, blood, bone marrow, and sterile sites

Blood culture

Spinal fluid bacterial antigens

Group B streptococcus on newborns and patients in labor/delivery

Zygomycete from sinus, eye, and nose

Blood parasites