

CRITICAL VALUES

Critical results are considered test results that may indicate an immediate or actionable threat to patient health. Any laboratory test result that is flagged as a critical value will be called **immediately** upon confirmation to the appropriate individual or facility by laboratory personnel. Placement of the call will be documented in the Laboratory Information System. A laboratory manager will be alerted if the individual or facility cannot be reached.

ALERT VALUES

Alert values represent laboratory test results that are less likely to represent an immediate threat to patient health but still present a significant abnormality. Any result that is flagged as an alert value will be called the next business day to include weekend calls out as appropriate. Calls will be placed to the appropriate individual or facility by laboratory personnel. Placement of the call will be documented in the Laboratory Information System.

Alert and Critical analytes and thresholds are given in the following charts. STAT laboratory and referred testing may operate with slightly different thresholds. Please contact your account executive for more details. In addition, all STAT testing is to be completed and communicated within specified timeframes, whether Critical/Alert or not.

CRITICAL VALUES			
Test	Low Value	High Value	Reference Range
CHEMISTRY			
Ammonia	None	Age < 15 years: ≥ 120	Adult: Female: 11-51 umol/L Male: 16-60 umol/L
Bilirubin	None	Age < 1 year: ≥ 15.1	Adult: ≤ 1.2 mg/dL
Calcium	≤ 6.0	≥ 14.0	Adult: 8.5 – 10.5 mg/dL
Calcium, Ionized	≤ 3.00	≥ 7.00	4.70 – 5.90 mg/dL
CKMB	None	Male: ≥ 7.8 Female: ≥ 4.4	Male: ≤ 7.7 ng/ml Female: ≤ 4.3 ng/ml
Glucose	Age < 1 year: ≤ 40	≥ 500	70 – 99 mg/dL
Magnesium	None	≥ 8.0	1.6 – 2.6 mg/dL
Potassium	≤ 2.5	≥ 6.5	3.5 – 5.4 mEq/L
Procalcitonin	None	≥ 2.00	< 0.10 ng/mL
Sodium	≤ 110	≥ 170	133 – 146 mEq/L
Troponin T	None	Male: ≥ 22 ng/L Female: ≥ 14 ng/L Not specified: ≥ 19 ng/L	Male: < 22 ng/L Female: < 14 ng/L Not specified: < 19 ng/L
COAGULATION			
PT	None	≥ 100.0	12.5 – 14.7 seconds
INR	None	≥ 8.0	DVT Anticoagulation: 2.0 – 3.0 seconds Prosthetic Heart Valves: 2.5 – 3.5 seconds
HEMATOLOGY			
WBC	None	≥ 50.0 with blasts $> 10\%$	3.5 – 11.0 K/uL
Abs. Neutrophil Count	< 0.50	None	1.50 – 7.50 K/uL
Hemoglobin	≤ 7.0	≥ 23.0	Adult Male: 13.5 – 17.0 g/dL Adult Female: 11.50– 15.5g/dL
Hematocrit	≤ 21.0	≥ 69.0	Adult Male: 40.0 – 51.0% Adult Female: 34.0 – 45.0%
Platelets	≤ 10	$\geq 1,500$	130 – 400 K/uL
Body fluids - CSF	None	Malignant cells Intracellular fungus/bacteria	No organisms or malignancy
MICROBIOLOGY			
All positive blood cultures		All positive CSF cultures	



CRITICAL VALUES			
Test	Low Value	High Value	Reference Range
TOXICOLOGY			
Acetaminophen	None	> 200	10-20 ug/mL
Amikacin	None	> 35	No established range for random sample
Digoxin	None	≥ 2.5	0.6 – 2.0 ng/mL
Lidocaine	None	> 9	2.0-5.0 ug/mL
Lithium	None	> 5	0.60-1.20 mEq/L
Methanol	None	>20	< 10 mg/dL
Procainimide N.A.P.A.	None	Procainimide: > = 12.1 N.A.P.A. : > = 35.1	Procainamide: 4.0-10.0 ug/mL N.A.P.A: 6.0-20.0 ug/mL
Salicylates	None	> 50	20-30 mg/dL
Vancomycin, Peak	None	> 80.0	25.0-40.0 ug/mL
Vancomycin, Random	None	> 80.0	NA
Vancomycin, Trough	None	> 80.0	10.0-20.0 ug/mL

ALERT VALUES			
Test	Low Value	High Value	Reference Range
CHEMISTRY			
Amylase	None	≥ 500	28 – 100 U/L
Calcium	≤ 7.0	≥ 12.0	Adult: 8.5 – 10.5 mg/dL
Calcium, Ionized	≤ 3.50	≥ 6.00	4.70 – 5.90 mg/dL
Carbon Dioxide	≤ 10	≥ 40	19 – 31 mEq/L
Chloride	≤ 70	≥ 130	95 – 107 mEq/L
Creatine Kinase	None	≥ 500	Adult Male: 31 – 336 U/L Adult Female: 28 – 176 U/L
Creatinine	None	≥ 6.00	Adult Male: 0.80 – 1.40 mg/dL Adult Female: 0.60 – 1.30 mg/dL
Glucose	≤ 45	≥ 400	70 – 99 mg/dL
Lead	None	Adults: ≥ 5 Children: ≥ 5	< 5 mcg/dL
Lipase	None	≥ 500	13 – 60 U/L
Magnesium	≤ 1.0	≥ 5.0	1.6 – 2.6 mg/dL
Potassium	≤ 3.0	≥ 6.0	3.5 – 5.4 mEq/L
Phosphorus	≤ 2.0	None	Adult: 2.5 – 4.5 mg/dL
Procalcitonin	>=0.50	None	<0.10 ng/mL
SGOT (AST)	None	≥ 1,000	Adult Male: 9 – 50 U/L Adult Female: 9 – 40 U/L
SGPT (ALT)	None	≥ 1,000	Adult Male: 5 – 50 U/L Adult Female: 5 – 40 U/L
Sodium	≤ 120	≥ 160	133 – 146 mEq/L
Urea nitrogen	None	≥ 80	Adult 8 – 23 mg/dl
COAGULATION			
PT PT INR	None	≥ 50.0 > 4.0	12.5 – 14.7 seconds DVT Anticoagulation: 2.0 – 3.0 seconds Prosthetic Heart Valves: 2.5 – 3.5 seconds
PTT	None	≥ 76.0	25.2 – 40.0 seconds
Fibrinogen	≤ 100	None	205– 395 mg/dL
HEMATOLOGY			
WBC	None	≥ 40.0	Adult: 3.5 – 11.0 K/uL
Hemoglobin	≤ 8.0	None	Male: 13.0 – 17.0 g/dL Female: 11.5 – 15.5 g/dL
Hematocrit	≤ 24.0	None	Male: 40.0 – 51.0% Female: 34.0 – 45.0%
Platelets	≤ 30	None	130 – 400 K/uL
IMMUNOLOGY			
Hepatitis	Positive Hepatitis A IgM Antibody Positive Hepatitis B Surface Antigen		Non-Reactive
HIV	Positive Confirmation		Non-Reactive
MICROBIOLOGY			
Positive results for the following tests:			
Blood Parasite Films	Fungal Culture (Source: eyes)		O & P- Positive for Giardia lamblia, Cryptosporidium Spp, Entamoeba histolytica, Dientamoeba fragilis
AFB, Culture	E. histolytica Antigen		Positive Stool Cultures
C. difficile Toxin	Giardia Antigen		Rotavirus Culture, feces
Cryptosporidium Antigen	Herpes Simplex Culture (Patient < 6 months of age)		Cultures from Sterile Sites
Bordetella Pertussis, PCR	Thin Prep and Surepath Group B Strep	C. difficile Toxin PCR	Respiratory Pathogen Panel: C. pneumoniae, M. pneumoniae
TOXICOLOGY			
Acetaminophen	None	> 40	10-20 ug/mL

Carbamzepine, Total	None	> 20	4.0-12.0 ug/mL
Cyclosporine, Trough	None	> 500	110-320 ng/mL

ALERT VALUES

Test	Low Value	High Value	Reference Range
Ethosuximide	None	> 150	40-100 ug/mL
Lidocaine	None	> 6	2.0-5.0 ug/mL
Lithium	None	> 2	0.60-1.20 mEq/L
Phenytoin, Free	None	> 3	Therapeutic: 0.8-2.0 ug/mL
Primidone	None	> 15	5-12 ug/mL
Salicylates	None	> 30	20-30 mg/dL
Tobramycin	None	Peak: > 12.1 Trough: >2.1	Peak: 5-10 ug/ml Trough: 0.5 - 2.0 ug/ml
Valproic Acid, Free	None	Free > 30	Valproic Acid, Free: Therapeutic Range = 5-15 ug/mL Toxic = >30 ug/mL Valproic Acid, Percent Free: 5-18%
Valproic Acid, Total	None	Total > 200	Valproic Acid, Total: Therapeutic Range = 50-125 ug/mL Toxic = >150 ug/mL
Vancomycin, Peak	None	> 40.0	25.0-40.0 ug/mL
Vancomycin, Random	None	> 30.0	NA
Vancomycin, Trough	None	> 30.0	10.0-20.0 ug/mL

HISTOLOGY / CYTOLOGY

New diagnosis of life threatening malignancies and other pathological processes

BODY FLUIDS

The organisms and/or cells listed below are alert values and are called to the physician as soon as verified.

Synovial fluid WBC \geq 1000/uL	CSF WBC \geq 100/uL	Pleural/ascitic WBC \geq 1000/uL
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