

LABORATORY CRITICAL VALUES LIST

Medical director(s) define critical lab results as values that indicate the need for the patient's physician or responsible healthcare provider to immediately intervene. Lab staff will call them immediately when test results are critical lab values.

The following tests results are considered critical lab values. Age groups are defined as follows:

- Neonatal: <30 days
- Pediatric: 30 days to 16 years
- Adults: >16 years (unless otherwise noted)

If no age group is specified, the values listed belong to all age groups.

Applies to Central DuPage Hospital, Delnor Hospital and Marianjoy Rehabilitation Hospital				
Analytes	Age Group	Critical Low	Critical High	Units
Absolute Neutrophil Count		≤0.5		10 ³ /uL
Acetaminophen		n/a	>50	ug/mL
Alcohol (ETOH)		n/a	≥400	mg/dL
Ammonia		n/a	>200	umol/L
Anti Xa, Unfractionated Heparin		n/a	>1.0	IU/mL
Anti Xa, Low Molecular Weight Heparin		n/a	>1.75	IU/mL
Bicarbonate (CO2)	Adult/Pediatric	≤10	≥40	mmol/L
	Neonatal	<15	>40	mmol/L
Bilirubin, Cord			≥4.0	mg/dL
Blasts			≥10	%
Blood Cultures		1st Positive Smears		n/a
Calcium	>30 Days	≤6.0	≥13	mg/dL
	Neonatal	<6.0	>12	mg/dL
Creatinine	>1 year	n/a	≥1.5	mg/dL
CSF Gram Stain		Positive		
CSF Cryptococcus Antigen		Positive		
CSF Culture		Positive		
Digoxin		n/a	>2.5	ng/dL
Dilantin (Phenytoin)		n/a	>30	ug/mL
Fetal Fibronectin		Positive		
Fibrinogen		<100	n/a	mg/dL
Glucose	Adult/Pediatric	<50	>500	mg/dL
	Neonatal	<30	>200	mg/dL
Hematocrit, Neonatal	0–30 days	≤24.0	≥65.0	%
	≥30 days	≤21.0	≥65.0	%
Hemoglobin	≥18 years	≤6.0	≥20.0	gm/dL
	30 days to 18 years	≤7.0	≥22.0	gm/dL
	<30 days	≤8.0	≥22.0	gm/dL
HIPA – Serotonin Release		Positive		

Applies to Central DuPage Hospital, Delnor Hospital and Marianjoy Rehabilitation Hospital (continued)

Analytes	Age Group	Critical Low	Critical High	Units
Intraocular Surgical Eye Specimens		Positive Gram Stains and Isolates (Notifiable Result)		
Lactic Acid (Lactate)		n/a	>4.0	mmol/L
Lithium		n/a	>1.5	mmol/L
Magnesium		≤1.0	≥4.8	mg/dL
Meningitis Panel		Positive		
Phenobarbital		n/a	>40	ug/mL
Platelet Count	<18 years	<20		10 ³ /uL
	≥18 years	<20	>1,000	10 ³ /uL
Porphobilinogen		Positive		
Potassium	Adult/Pediatric	≤2.5	≥6.0	mmol/L
	0-1 year	<3.0	>6.0	mmol/L
Protime		n/a	≥58.0	Seconds
INR		n/a	≥5.0	
PTT	Heparinized		>150	Seconds
	Non-heparinized		>85	Seconds
RSV, Neonatal (Rapid or Culture)		Positive (Notifiable Result)		
Salicylate		n/a	>30.0	mg/dL
Sodium		≤120	≥160	mmol/L
Theophylline		n/a	>20	ug/mL
Total Bilirubin	<1 year	n/a	≥15	mg/dL
Total T3		n/a	≥400	ng/dL
Transfusion Reaction Work-Up		Acute Hemolytic Transfusion Reaction		
Transfusion – Bacterial Contamination		Potential Bacterial contamination of a blood product transfused within the last 7 days.		
Transfusion		Transfusion Error		
Triglyceride	0-1 year	n/a	>200	mg/dL
	≥1 year	n/a	>1000	
WBC	≥18 years	≤1.0	≥50.0	10 ³ /uL
	<18 years	≤1.0	≥40.0	10 ³ /uL
Vancomycin, Random and Peak		n/a	>40	ug/mL
Vancomycin, Trough		n/a	>20	ug/mL

Applies to Central DuPage Hospital, Delnor Hospital and Marianjoy Rehabilitation Hospital (continued)

Analytes	Age Group	Critical Low	Critical High	Units
pH, Arterial		<7.20	>7.65	
pCO2, Arterial		<20	>80	mmHg
pO2	<1 month	<40	>90	mmHg
	≥1 month	<40		mmHg
pH, Venous		<7.20	>7.65	
pH, Arterial Cord		<7.00		
pH, Venous Cord		<7.00		
pH, Capillary		<7.20	>7.65	
Carboxyhemoglobin (COHb)	Pediatric		≥3	%
	Adult		≥10	%
Methemoglobin (MetHb)			≥4	%

Applies to Central DuPage Hospital Only

Analytes	Age Group	Critical Low	Critical High	Units
Phosphorus	Adult	<1.1	n/a	mg/dL
	0-18 years	<1.0	>11	mg/dL
Troponin I – High Sensitivity		n/a	>500	pg/mL

Applies to Delnor Hospital Only

Analytes	Age Group	Critical Low	Critical High	Units
Carbamazepine (Tegretol)		n/a	>15	ug/mL
Phosphorus		<1.1	n/a	mg/dL
Troponin I – High Sensitivity		n/a	>200	pg/mL
Valproic Acid		n/a	>120	ug/mL

Updated October 2024