



System Laboratory Administration Attachment - Laboratory Critical Values

Version Number	Change Summary	Effective Date
7	Added Ammonia for < 6 month age group	05/06/2025

The ranges for the diagnostic tests listed below have been identified as “critical” by the laboratory in conjunction with the medical staff. Any value which exceeds these limits will be called to the responsible licensed healthcare provider within 30 minutes after the test result is confirmed. To ensure accuracy and patient safety, laboratory personnel will request the provider read back the results they have been given.

Test	Age > 3 months (or adult)		Age 0-3 months (or other)	
Chemistry	<=/ to	>=/ to	<=/ to	>=/ to
Ammonia (umol/L)			<6 months:	>100
Bilirubin (mg/dl)	n/a	n/a	n/a	18.0
Calcium (mg/dl)	6.0	13.0	6.0	13.0
Calcium, Ionized (mg/dl)	3.0	7.0	3.0	7.0
Creatinine (mg/dl)	n/a	>7.50	<2 years:	2.00
Creatinine (mg/dl)			2-11 years:	2.50
Creatinine (mg/dl)			12-16 years:	3.00
AKI Acute Kidney Alert (pediatric only)			<= 16 years:	Level 3
Ethanol g/dl	n/a	0.40	n/a	0.40
Glucose (mg/dl)	40 outpatient 55 non outpatient	450	40	200
Glucose (mg/dl)		3-6 months:	40	450
Potassium (mmol/L)	2.8	6.2	3.0	6.5
Lactic Acid (Lactate) mmol/L	n/a	4.0	n/a	4.0
Magnesium (mg/dl)	0.7	8.1	0.7	8.1
Phosphorus (mg/dl)	0.9	12.5	0.9	12.5
Sodium (mmol/L)	120	160	125	155
Blood Gas	<=/ to	>=/ to	<=/ to	>=/ to
Carbon Monoxide (%)	n/a	15.0	n/a	15.0
pH, arterial, venous, or capillary	7.20	7.60	7.20	7.60
pH, cord blood gas	n/a	n/a	7.05	7.50
pCO ₂ , arterial, or capillary (mm Hg)	20	70	30	70
pO ₂ , arterial samples only (mm Hg)	50	none	n/a monitored by pulse ox	n/a monitored by pulse ox
Therapeutic Drugs	<=/ to	>=/ to	<=/ to	>=/ to
Acetaminophen (ug/ml)	n/a	40	n/a	40
Caffeine (ug/ml)	n/a	n/a	n/a	30
Dilantin/Phenytoin (ug/ml)	n/a	40	n/a	40
Digoxin (ng/ml)	n/a	2.5	n/a	2.5



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Test	Age > 3 months (or adult)		Age 0-3 months (or other)	
Depakene/Valproic Acid (ug/ml)	n/a	200	n/a	200
Lithium (mmol/L)	n/a	2.0	n/a	2.0
Phenobarbital (ug/ml)	n/a	60	n/a	60
Salicylate (mg/dl)	n/a	30	n/a	30
Tegretol/Carbamazepine (ug/ml)	n/a	20	n/a	20
Theophylline (ug/ml)	n/a	25	n/a	25
Hematology	</= to	>/= to	</= to	>/= to
Hematocrit (%)	15	75	20	70
Hemoglobin (gm/dl)	6.0	n/a	6.0	n/a
Platelet (x10 ⁹ /L)	30	1,000	20	n/a
WBC (x10 ⁹ /L)	1.0	100.0	1.0	100.0
CSF WBC (/mm ³)	n/a	25	n/a	25
Coagulation	</= to	>/= to	</= to	>/= to
Protime/INR (ratio)	n/a	5.0	n/a	5.0
PTT (seconds)	n/a	105	n/a	105
Fibrinogen (mg/dl)	100	n/a	100	n/a
Microbiology				
Any Positive: Blood: PCR test or Culture				
AFB: Stain, PCR test or Culture				
CSF: Gram Stain, PCR test or Culture				

Laboratory Critical Tests

The diagnostic tests listed below have been identified as “critical” by the laboratory in conjunction with the medical staff. All results for these tests are called to the responsible licensed healthcare provider.

- Rapid HIV for exposures
- Transfusion Reactions
- Frozen Tissue Sections