

# Munson Healthcare Laboratory Critical Values

**Critical Result:** is defined as a value that is potentially life threatening and requires immediate communication and/or intervention.

## Pediatric up to 21 years old

Analyte, specimen	Low critical	High critical	Units
	Less than or equal to	Greater than or equal to	
<b>Hematology</b>			
WBC, blood (<30 days)	4.9	31.0	K/ul
WBC, blood (≥30 days)	2.0	31.0	K/ul
Hematocrit, blood	20	70	%
Hemoglobin, blood	7.0	22.5	g/dl
Platelet Count, blood	50	1,000	K/ul
WBCs (<30 days), spinal fluid		15	/mm <sup>3</sup>
WBCs (≥30 days), spinal fluid		5	/mm <sup>3</sup>
Malaria smear	Call any positives		
<b>Coagulation</b>			
APTT, plasma		65.0	seconds
INR, plasma		2.0	
Fibrinogen, plasma	100		mg/dl
<b>Chemistry</b>			
ALT, blood		150	IU/L
Ammonia, blood		75	umol/L
AST, blood		150	IU/L
Bilirubin, total, blood (<30 days)		15.0	mg/dl
Bilirubin, total, blood (≥30 days)		5.0	mg/dl
BUN, blood		100	mg/dl
Calcium, blood	6.0	12.0	mg/dl
CO <sub>2</sub> , total	16	35	mmol/L
Creatinine, blood		1.50	mg/dL
Glucose, blood	35	200	mg/dl
High sensitivity troponin, plasma (first time only)		50	
Lactate dehydrogenase (LDH), blood		300	IU/L

Lactic acid, venous		4.0	mmol/L
Magnesium, blood	1.0	3.5	mg/dl
Magnesium, Obstetric or OB, blood	1.0	7.0	mg/dl
Phosphorous, blood	1.5		mg/dl
Potassium, blood	2.5	6.5	mmol/L
Sodium, blood	125	155	mmol/L
Triglycerides, blood (<30 days)		250	mg/dl
<b>Toxicology</b>			
Acetaminophen, plasma or serum		40	ug/ml
Carbamazepine, Total, plasma or serum		15.0	ug/ml
Digoxin, plasma or serum		2.0	ng/ml
Ethanol (0-12 years)		50	mg/dl
Ethanol (13-21 years)		250	mg/dl
Lithium, serum		1.5	mmol/L
Phenobarbital, plasma or serum		40	ug/ml
Phenytoin, plasma or serum		30.0	ug/ml
Salicylate, plasma or serum		30	mg/dl
Theophylline, plasma or serum		20	ug/ml
Valproic Acid, plasma or serum		150	ug/ml
<b>Blood Gas</b>			
Bicarbonate (HCO <sub>3</sub> -), arterial, capillary or venous	16	35	mmol/L
pCO <sub>2</sub> , arterial, capillary or venous	30	70	mmHg
pH, arterial, capillary or venous	7.20	7.50	pH units
pO <sub>2</sub> , arterial	40	150	mmHg
pO <sub>2</sub> , capillary	20	80	mmHg
<b>Urinalysis</b>			
Ketones and glucose	Call if either are positive		

<b>Microbiology</b>	
ANY POSITIVE	NOTE:
Acid Fast Smear	only NEW positive
Culture and/or Gram stain, Blood	Every 3 days for same organism
Culture, Bone marrow	

Culture, Brain abscess, fluid, tissue	
Culture, CSF	
Culture, Mycobacterium	only NEW positive
Culture, Pericardial fluid	
Culture, Synovial fluid	
Culture, Vitreous fluid	
Fungal smear, Nasal	Non septate hyphae only
Gram stain of	Bone marrow, brain abscess, fluid, tissue, CSF, Pericardial fluid, Synovial fluid, Vitreous fluid
Growth of	Bacillus anthracis, Brucella sp, Burkholderia mallei/pseudomallei, Clostridium botulinum, Francisella, Yersinia pestis
Meningitis Encephalitis CSF Film Array panel	
Smears or cultures with a dimorphic pathogen	First time positive for Histoplasma, Coccidioides, Blastomyces, Paracoccidioides, Penicillium marneffeii or Sporothrix