

# Munson Healthcare Laboratory **ADULT** Critical Values:

Critical result is defined as a value that is a value that is potentially life threatening and requires immediate communication and or intervention.

<b>Hematology</b>				
Analyte, specimen	Low critical (value is less than or equal to)	High critical (value is greater than or equal to)	Units	Notes:
WBC, blood	1.0	50.0	K/uL	high critical: first time only, each 30 days
Hemoglobin, blood	6.0	20.0	g/dl	
Platelet count, blood	20	1000	K/uL	
WBC, spinal fluid		5	/mm <sup>3</sup>	
Malaria smear	Call any positive			

<b>Coagulation</b>			
Analyte, specimen	Low critical (value is less than or equal to)	High critical (value is greater than or equal to)	Units
Anit-Xa, plasma		2.0	IU/ml
APTT, plasma		150.0	seconds
INR, plasma		5.0	
Fibrinogen, plasma	100		mg/dl

<b>Chemistry</b>				
Analyte, specimen	Low critical (value is less than or equal to)	High critical (value is greater than or equal to)	Units	Notes:
Calcium, blood	6.0	13.0	mg/dl	
CO <sub>2</sub> , total	10	40	mmol/L	
Glucose, blood	50	500	mg/dl	
High Sensitivity Troponin, plasma		50	ng/L	first time only
Lactic acid, venous		4.0	mmol/L	
Magnesium, blood	1.0	4.5	mg/dl	
Magnesium, Obstetric or OB, blood	1.0	7.0	mg/dl	
Phosphorous, blood	1.0	9.0	mg/dl	
Potassium, blood	2.5	6.0	mmol/L	
Sodium, blood	120	160	mmol/L	

<b>Toxicology</b>			
Analyte, specimen	Low critical (value is less than or equal to)	High critical (value is greater than or equal to)	Units
Acetaminophen, plasma or serum		40	ug/ml
Carbamazepine, plasma or serum		15.0	ug/ml
Digoxin, plasma or serum		2.0	ng/ml
Ethanol, plasma		400	mg/dl
Lithium, serum		1.5	mmol/L
Phenobarbital, plasma or serum		60	ug/ml
Phenytoin, plasma or serum		30.0	ug/ml
Salicylate, plasma or serum		30	mg/dl
Valproic Acid, plasma or serum		150	ug/ml

<b>Blood gas</b>			
Analyte, specimen	Low critical (value is less than or equal to)	High critical (value is greater than or equal to)	Units
Carboxyhemoglobin		15.0	%
Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ), arterial or venous	10	40	mmol/L
pCO <sub>2</sub> , arterial or venous	20	70	mmHg
pH, arterial or venous	7.20	7.60	pH units
pO <sub>2</sub> , arterial	40		mmHg

<b>Microbiology</b>	
<b>ANY POSITIVE</b>	Notes:
Acid Fast Smear	Only new positive
Culture and/or gram stain, Blood	Every 3 days for same organism
Culture and/or gram stain, Bone marrow	
Culture and/or gram stain, Brain (abscess, fluid, tissue)	
Culture and/or gram stain, CSF	
Culture, Mycobacterium	Only new positive
Culture and/or gram stain, Pericardial fluid	
Culture and/or gram stain, Synovial fluid	
Culture and/or gram stain, Vitreous fluid	
Fungal smear, nasal	Non-septate hyphae only
Growth of	Bacillus anthracis, Brucella sp, Burkholderia mallei/pseudomallei, Clostridium botulinum, Francisella, Yersinia pestis
Meningitis Encephalitis CSF Flim Array panel	
Smear or culture with a dimorphic pathogen (first time positive only)	Histoplasma, Coccidioides, Blastomyces, Paracoccidioides, Penicillium marneffeii or Sporothrix

Approved by the Munson Healthcare Physician Leadership Council 2023