

**Heartland Health Laboratories, Inc.**  
**CRITICAL VALUES**

Critical limits define the boundaries of the low and high life threatening values for laboratory test results. Urgent clinician notification of critical results is a responsibility of the laboratory technologist performing the testing. Test values that coincide with the alert values listed below should be verified and called immediately to the patient's facility so that the nursing staff may notify the physician as soon as possible.

<b><u>ANALYTE REFERENCE</u></b>	<b><u>RANGE</u></b>	<b><u>ALERT VALUE LIMIT</u></b>
<b><u>Hematology</u></b>		
WBC	4.5-10.5 x10(3)/MM3	< 2.0 x 10(3)/MM3 >37.0 x 10(3)/MM3
Hemoglobin	M 14.0-18.0 g/dl F 12.0-16.0 g/dl	<7.6 g/dl <7.6 g/dl
Platelet	140 - 400 x1000/MM3	<40,000/MM3
<b><u>Chemistry</u></b>		
Sodium	136 – 145 mmol/L	<120mmol/L OR >160mmol/L
Potassium	3.5 - 5.1 mmol/L	<3.0mmol/L OR >6.0mmol/L
Chloride	98 – 107 mmol/L	<80mmol/L OR >125mmol/L
CO2	21 – 31 mmol/L	<15mmol/L OR >40 mmol/L
Glucose	70 – 105 mg/dl	<40 mg/dl OR >400 mg/dl
Calcium	8.2 - 10.0 mg/dl	<7.5 mg/dl OR >12.5mg/dl
Phosphorus	2.0 – 5.0 mg/dl	<1.5 mg/dl OR >7.0 mg/dl
BUN	7.0 - 25 mg/dl	>100 mg/dl
Creatinine	0.6 - 1.3 mg/dl	>5.0 mg/dl
Uric Acid	3.3 – 8.7 mg/dl	>13.0 mg/dl
Total Bilirubin	0.1 - 1.2 mg/dl	>15.0 mg/dl
Magnesium	1.8 – 2.4 meq/L	<1.0 meq/L OR >4.9 meq/L
Amylase	29 – 103 U/L	>400 U/L
BNP	0 – 125 pg/ml 0-75 yrs old 0 – 450 pg/ml 76 yrs - & over	>25,000 pg/ml
Ammonia	29 –90 ug/dl	>150 ug/dl
<b><u>Toxicology</u></b>		
Carbamazepine	4.0 - 10.0 ug/ml	>15.0 ug/ml
Digoxin	0.9 - 2.0 ng/ml	>2.5 ng/ml
Gentamycin	Peak: 4.0 - 8.0 ug/ml Trough: 0.5 - 2.0 ug/ml	>13.0 ug/ml >2.5 ug/ml
Lithium	0.5 - 1.2 meq/l	>2.0 meq/l
Phenytoin	10.0 - 20.0 ug/ml	<5.0 or >25.0 ug/ml
Phenobarbital	15.0 - 40.0 ug/ml	>50.0 ug/ml
Theophylline	10.0 - 20.0 ug/ml	>25.0 ug/ml
Valproic Acid	50.0 - 100.0 ug/ml	>200.0 ug/ml
Vancomycin	Peak: 18.0 - 26.0 ug/ml Trough: 5.0 - 15.0 ug/ml	>35.0 ug/ml >22.5 ug/ml
<b><u>Coagulation</u></b>		
INR	2.0 - 3.0	>4.5
APTT	24.0 – 30.0 seconds	>60 seconds
<b><u>Microbiology</u></b>		
Blood Culture	NO GROWTH IN SPECIMEN	ANY GROWTH IN SPECIMEN
Any Culture	NEGATIVE FOR MRSA	ISOLATION OF MRSA
Any Culture	NEGATIVE FOR VRE	ISOLATION OF VRE
Any Culture	NEGATIVE FOR CRO	ISOLATION OF CRO

**Reference:**

Clinical Laboratory Reference, 2015 – 2016