

St Elizabeth Laboratory
Edgewood, Ft Thomas, Florence, Covington, Grant, Owen, Cancer Care
Critical Values List (4/2017)

BLOOD GAS

Test Report Name	Age	Critical Low	Critical High
pH		< 7.2	> 7.6
pCO ₂		< 20 mm Hg	> 70 mm Hg
pO ₂		< 40 mm Hg	
Calcium, Ionized		< 0.8 mmol/L	> 1.55 mmol/L
Carboxyhemoglobin			≥ 20%

HEMATOLOGY

Test Name	Age	Critical Low	Critical High
Clinitest	< 1 year old		Positive
Fibrinogen		< 100 mg/dL	
Hematocrit	0 to 7 days		≥ 70%
Hematocrit	8 to 30 days		≥ 65%
Hematocrit	31 days to 150 years	< 21%	> 60%
Hemoglobin	< 4 weeks	< 10 g/dL	
Hemoglobin	≥ 4 weeks	< 7 g/dL	> 20 g/dL
Heparin Assay (Anti Factor Xa)			≥ 1.0 IU/mL
INR (International Normalized Ratio)			≥ 5.0
aPTT			≥ 125 seconds
Blast %			Any – first time
Neutrophils, Absolute		≤ 0.5 x 10 ³ /μL	
Platelets, Blood		< 40 x 10 ³ /μL	> 1,000 x 10 ³ /μL
White Blood Cells		< 1.5 x 10 ³ /μL	> 50 x 10 ³ /μL

HEMATOLOGY – Cancer Care CUSTOM CRITICAL VALUES

Hemoglobin	Adult	≤ 6 gms/dl	≥ 22.5 gms/dl
Platelets	Adult	≤ 15 x 10 ³ /μL	
INR			≥ 8.0
aPTT			≥ 90 seconds
Blast %			≥ 50%
White Blood Cells, CSF			≥ 5 μL

CHEMISTRY

Test Name	Age	Critical Low	Critical High
Alcohol			> 300 mg/dL
Amikacin			Peak >35 µg/mL Random >35 µg/mL Trough >10 µg/mL
Ammonia			> 100 µmol/L
Bilirubin, Total	≥ 4 weeks		≥ 15 mg/dL
Calcium, Total		< 6.0 mg/dL	> 13.0 mg/dL
Carbamazepine			> 20 µg/mL
Digoxin			> 2.1 ng/mL
Gentamicin			Trough > 2.5 mg/L
Glucose, Plasma/Serum	< 4 weeks	< 40 mg/dL	> 300 mg/dL
Glucose, Plasma/Serum	≥ 4 weeks	< 50 mg/dL	> 450 mg/dL
Lithium			> 2.0 mmol/L
Magnesium		≤ 1.0 mg/dL	> 5.0 mg/dL
Phenobarbitol			> 60 µg/mL
Phenytoin			> 40 µg/mL
Phosphorus		< 1 mg/dL	
Potassium	< 4 weeks	<3.0 mmol/L	> 8.0 mmol/L
Potassium	≥ 4 weeks	< 3.0 mmol/L	> 6.0 mmol/L
Salicylate			> 40 mg/dL
Sodium		< 120 mmol/L	> 160 mmol/L
Theophylline			> 25 µg/mL
Tobramycin			Trough > 2.5 mg/L
Valproic Acid			> 150 µg/mL
Vancomycin			Peak/Random > 60 µg/mL Trough ≥ 20 µg/mL

Chemistry– Cancer Care CUSTOM CRITICAL VALUES

Calcium		< 6.0 mg/dl	> 13.0 mg/dl
Creatinine			> 3.0 mg/dl
Glucose		< 30 mg/dl	> 600 mg/dl
Magnesium		< 0.7 mg/dl	> 6.1 mg/dl
Phosphorus		< 1.0 mg/dl	
Potassium		< 2.7 mmol/L	> 6.5 mmol/L
Sodium		< 120 mmol/L	> 160 mmol/L

MICROBIOLOGY

Test Name	Critical Value / Critical Result
Bacterial Culture	Positive result from blood, CSF, sterile body fluid, or corneal scrapings
Cryptococcal Antigen	Positive result from blood or CSF
Fungal Culture	Positive result from blood, CSF, or corneal scrapings
Gram Stain	Positive result from CSF, sterile body fluid, or corneal scraping
Mycobacterial Culture or Smear	Positive result from any source
Parasites	Positive result from blood or stool
Streptococcus pneumoniae antigen	Positive result from CSF
Viral PCR (HSV and CMV)	Positive result from blood or CSF