

2023 Piedmont Augusta Laboratory Critical Values

University Hospital has designated certain laboratory results to be considered "life threatening" unless therapy is instituted quickly. These values are telephoned directly to the licensed nurse in charge of the patient on the unit, physician requesting the determination, or another physician responsible for the patient.

The lab will obtain and document the first and last name and title of the person receiving the results, the time called and have them "Read Back and Verify" the report.

"CRITICAL VALUE" REPORTS

TESTS	LOW	HIGH
serum GLUCOSE	<60 mg/dL	>400 mg/dL
serum CALCIUM	<6.0 mg/dL	>13.0 mg/dL
serum CALCIUM IONIZED	<3.2 mg/dL	>6.0 mg/dL
serum CO₂	<10 mmol/L	>40 mmol/L
serum CHLORIDE	<80 mmol/L	>120 mmol/L
serum CREATININE	NONE	>5.0 mg/dL
serum POTASSIUM	<2.8 mmol/L	>6.0 mmol/L
serum SODIUM	<120 mmol/L	>160 mmol/L
serum PHOSPHATE	<1.2 mg/dL	>8.5 mg/dL
serum MAGNESIUM	<1.0 meq/L	>4.0 meq/L
serum LITHIUM	NONE	>1.5 mmol/L
serum BUN	NONE	>80 mg/dL
serum URIC ACID	NONE	>13.0mg/dL
serum OSMOLALITY	<250 mOsmol/Kg	>325 mOsmol/Kg
CARBON MONOXIDE (Carboxy Hemoglobin)	NONE	>20% HbCO
TROPONIN T	NONE	≥50 ng/L
Lactic Acid	NONE	>2.0 mmol/L
CSF GLUCOSE	<35 mg/dL	>500 mg/dL
WHOLE BLOOD TESTING	LOW	HIGH
pH	<7.2	>7.6
pO₂	<50 mm Hg	NONE
pCO₂	<20 mm Hg	>60 mm Hg
whole blood GLUCOSE	<60 mg/dL	>400 mg/dL
whole blood SODIUM	<120 mmol/L	>160 mmol/L
whole blood POTASSIUM	<2.8 mmol/L	>6.0 mmol/L
TESTS (NEWBORN)	LOW	HIGH
serum BILIRUBIN TOTAL	NONE	>16.0 mg/dL
serum GLUCOSE	<40 mg/dL	>150 mg/dL
serum CALCIUM	<6.0 mg/dL	>11.0 mg/dL

Critical Values Continued

serum POTASSIUM	<2.8 mmol/L	>8.0 mmol/L
serum SODIUM	<110 mmol/L	>160 mmol/L
pO₂	<50 mm Hg	>100 mm Hg
serum CO₂, PHOSPHATE, MAGNESIUM	SAME AS ABOVE	SAME AS ABOVE
serum CALCIUM IONIZED	SAME AS ABOVE	SAME AS ABOVE
csf GLUCOSE, DRUGS (Therapeutics)	SAME AS ABOVE	SAME AS ABOVE
pH (Newborn and Cordblood), pCO₂	SAME AS ABOVE	SAME AS ABOVE
HEMATOLOGY / COAGULATION		
PROTHROMBIN TIME INR	>4.0	
PTT – PARTIAL THROMBOPLASTIN TIME	>120.0 SECONDS	
D-DIMER	>0.80 ug/mL (FEU)	
HCT – HEMATOCRIT	≤15%	
HGB – HEMOGLOBIN	≤6 gm/dl	
PLT – PLATELET COUNT	<20,000 / cumm. OR >900,000 / cumm.	

THERAPEUTIC PANIC LEVELS FOR TDM ASSAYS		
ASSAY	CRITICAL RESULT	NORMAL RANGE
Acetaminophen	>30.0	10.0 – 30.0 ug/ml
Salicylate	>20.0	2.8 – 20.0 mg/dl
Phenytoin	>20.0	10.0 – 20.0 ug/ml
Phenobarbital	>40.0	15 – 40 ug/ml
Digoxin	>2.0	0.9 – 2.0 ng/ml
Theophylline	Infant >12.0 Adult >20.0	10.0 – 20.0 ug/ml
Valproic Acid	>100.0	50 – 100 ug/ml
Carbamazapine	>12.0	4 – 12 ug/ml
Vanco Trough	>20.0	10.0-20.0 ug/ml
Peak	>40.0	25 – 40 ug/ml
Genta Trough	>2.0	1.0 – 2.0 ug/ml
Peak	>10.0	6.0 – 10.0 ug/ml
Tobra Trough	>2.0	0.5 – 2.0 ug/ml
Peak	>10.0	6.0 – 10.0 ug/ml

Critical Values Continued

MICROBIOLOGY CRITICAL VALUE RESULTS	
TEST	CRITICAL VALUE
CSF gram stain	Organism seen on smear
CSF Culture	Organism Grown (not seen on smear)
Blood Culture	Positive Gram Stain from bottle
Cryptococcal Antigen	Positive
Pathogenic Fungus	Positive or Tentative ID from smear or culture
Respiratory Syncytial Virus (RSV)	Positive (called if requested)
AFB Smear	AFB seen – Epidemiology notified
AFB Culture	AFB Grown (not seen on smear) Epidemiology notified
Neisseria meningitidis	Any source - Epidemiology notified
<p>NOTE: Also all other unusual or extremely abnormal results when considered significant are called.</p>	

Updated:

05/04/2023 MM

02/12/21 KJ

05/4/18 BB