

PATHOLOGY LAB – Critical Values

	LOW VALUES	HIGH VALUES
BLOOD GAS		
Arterial Blood Gas, Adult		
pH	< 7.25 units	> 7.60 units
pCO ₂	< 25 mmHg	> 60 mmHg
pO ₂	< 60mmHg	—
Arterial Blood Gas, Newborn		
pH	< 7.20 units	> 7.50 units
pCO ₂	< 30 mmHg	> 60 mmHg
pO ₂	< 40 mmHg	> 90 mmHg

CHEMISTRY

Bilirubin, Total: Neonates		
Less than 24 hours	—	≥ 10.0 mg/dL
24 hours to 48 hours	—	≥ 13.0 mg/dL
48 hours to 72 hours	—	≥ 15.0 mg/dL
72 hours to 30 days	—	≥ 17.0 mg/dL
Calcium, Total	≤ 6.5 mg/dL	≥ 12.0 mg/dL
Calcium, Ionized	≤ 3.5 mg/dL	≥ 5.8 mg/dL
Glucose: 0-48 hours old (random, fasting, GTT)	≤ 40 mg/dL	≥ 500 mg/dL
Glucose: > 48 hours old (random, fasting, GTT)	≤ 50 mg/dL	≥ 500 mg/dL
Magnesium	≤ 1.0 mg/dL	≥ 8.0 mg/dL
Osmolality, measured	≤ 250 mOsm/kg	≥ 335 mOsm/kg
Phosphorus	≤ 1.0 mg/dL	
Potassium	≤ 2.5 mmol/L	≥ 6.5 mmol/L
Sodium	≤ 120 mmol/L	≥ 160 mmol/L

DRUGS

Acetaminophen	—	≥ 50 ug/mL
Digoxin	—	≥ 2.5 ng/mL
Lidocaine	—	≥ 6.5 ug/mL
Lithium	—	≥ 1.5 mmol/L

	LOW VALUES	HIGH VALUES
HEMATOLOGY		
Hematocrit		
Less than 24 hours	< 35%	—
24 hours to 1 month	< 20%	—
Less than or equal to 1 month	—	≥ 70%
Greater than 1 month	—	≥ 60%
Hemoglobin	≤ 6.0 g/dL	—
WBC		
≤ 30 days of age	< 2.0K/uL	—
> 30 days	≤ 1.0 K/uL	≥ 50 K/uL
INR	—	≥ 5.0
Partial Thromboplastin Time	—	≥ 85 sec
Malaria	Presence (> 0)	
Blasts	Presence (> 0)	

MICROBIOLOGY

Blood Culture	Initial positive gram stain and any culture growth or gram stains different from initial gram stain
CSF Culture	Initial positive gram stain and any culture growth or gram stains different from initial gram stain
Cryptococcal Antigen	Positive
India Ink exam	Positive

REFERENCE LAB

Results identified as critical by a reference lab will be called.

Revised January 2024