



Currently accepted laboratory practice is that laboratories monitor test results for exceeding critical values, so that when such occurs, appropriate notification of the responsible health care provider is completed and documented. The list of Critical Values and the procedure for reporting is submitted annually to the Medical Staff of the Whole committee for review, revision, and approval by Cabinet Peaks Medical Center's Hospital Medical Staff.

This form should be used as a quick reference for Adult and Pediatric Critical Values. Always refer to our most current version of our Critical Values Policy (LAB-1103).

Department	Analyte (unit)	Adult Critical Values		Pediatric Values	
		Low	High	Low	High
Chemistry	Ammonia (μmol/L)	---	>100	---	>100
	Blood Gases (Arterial)				
	pH	<7.20	>7.60	<7.25	>7.50
	pCO ₂ (mmHg)	<20	>70	<30	>50
	pO ₂ (mmHg)	<40	----	<50	>90
	Blood Gases (Umbilical)				
	pH Cord	----	----	<7.10	----
	BE	----	---	<-9.0	----
	Total Bilirubin (mg/dL)				
	< 24 hours old	----	----	----	≥8
	≥24 to <48 hours old	----	----	----	≥13
	≥48 to <84 hours old	----	----	----	≥18
	≥84 to <30 days old	----	----	----	≥15
	Calcium, Total (mg/dL)	<6.0	>12.0	<6.0	>12.0
	Calcium, Ionized (mg/dL)	<3.0	>6.0	<2.0	>6.0
	Carbon Monoxide (%)	----	>30.0	----	>20.0
	Creatinine Kinase (CK) (U/L)	----	≥10,000	----	----
	Glucose (mg/dL)	<50	>500	----	----
	<1 month	----	----	<40	>150
	≥ 1 month	----	----	<50	> 500
	Glucose Testing (mg/dL)				
	Challenge	<50	>500	----	----
	Tolerance				

	Gestational				
	Lead (µg/dL)*				
	0 – 15 years	----	----	----	>20
	≥16 years	----	>70	----	----
	Magnesium (mg/dL)	≤1.0	≥6.0	<1.0	≥6.0
	OB Patients	≤1.0	≥10.0	----	----
	Phosphorus (mg/dL)	≤1.0	----	<1.0	>7.0
	Potassium (mEq/L)	<3.0	>6.0	----	----
	0 – 2D	----	----	<3.0	>6.4
	3D – 10D	----	----	<3.0	>7.0
	11D – 1Y	----	----	<3.0	>7.4
	Sodium (mEq/L)	<120	>155	----	----
	0 – 1Y	----	----	<125	>155
	Protein (CSF) (mg/dL)	----	>100	----	>100
	T4, Total (mg/dL)	----	----	<3.5	>18.0
	T4 Free, Serum (mg/dL)				
	< 50 Y	----	>6.0	----	----
	>50 Y	----	>7.0	----	----
	Troponin I, high sens (ng/mL)	----	>0.12	----	>0.12
Department	Analyte (unit)	Adult Critical Values		Pediatric Critical Values	
		Low	High	Low	High
Hematology	Absolute Neutrophil Count	----	----	<500	----
	CSF White Cell Count (WBC/µL)				
	0 – 12 M	----	----	----	>30
	1-4 Y	----	----	----	>20
	5 Y – 12 Y	----	----	----	>10
	12Y - Adult	----	>5	----	----
	Hemoglobin (g/dL)	<7.0	>20.0	----	----
	0 - ≤ 4 M	----	----	8.1	>20.0
	> 4 M	----	----	<7.0	>21.1
	Platelet (CMM)	<30,000	>1,000,000	<30,000	>1,000,000
	White Blood Count (CMM)	<1,000	>30,000 (first dx)	<1,000	>50,000
Department	Analyte (unit)	Adult Critical Values		Pediatric Critical Values	
		Low	High	Low	High
Coagulation	INR	----	>5.0	----	>4.0
	PT (sec)	----	----	----	>30

	PTT (sec)	----	>90	----	>90
	Fibrinogen (mg/dL)	≤59	----	≤59	----
Department	Analyte (unit)	Adult Critical Values		Pediatric Critical Values	
Drugs		Low	High	Low	High
	Acetaminophen (µg/mL)	----	>60	----	>50
	Carbamazepine* (Tegretol) (µg/mL)	----	>20	----	>15.0
	Digoxin (ng/mL)	----	>2.5	----	>2.5
	Gentamicin*, Trough (µg/mL)	----	>2.5	----	>2.0
	Gentamicin*, Peak (µg/mL)	----	>16	----	>12
	Lithium (mmol/L)	----	>3.0	----	>1.5
	Phenobarbital* (µg/mL)	----	>60	----	>40
	Phenytoin* (Dilantin) (µg/mL)	----	>25	----	>25
	Salicylate (mg/dL)	----	>30.0	----	>10
	Theophylline* (µmol/mL)	----	>25	----	>20
	Tobramycin*, Trough (mcg/mL)	----	>2	----	>2
	Tobramycin*, Peak (mcg/mL)	----	>12	----	>12
	Valproic Acid (µg/mL)	----	>150	----	>120
Department	Test Source	Adult Critical Value		Pediatric Critical Value	
Molecular/ Microbiology	Culture Blood Body Fluid CSF Wound Stool	Positive (first bottle in 24h) Positive (first culture) Positive Positive for Clostridium Positive for Shiga Toxin E. Coli, V. cholerae		Positive (first bottle in 24h) Positive (first culture) Positive Positive for Clostridium Positive for Shiga Toxin E. Coli, V. cholerae	
	Gram Stain CSF Body Fluid Blood Joint	Bacteria Present Bacteria Present Bacteria Present (first bottle in 24h) Bacteria Present		Bacteria Present Bacteria Present Bacteria Present (first bottle in 24h) Bacteria Present	
	Culture Any Source	<u>Select Agents:</u> Bacillus anthracis Brucella		<u>Select Agents:</u> Bacillus anthracis Brucella	

Molecular/ Microbiology		Burkholderia mallei Burkholderia pseudomallei Francisella tularensis Yersinia pestis Clostridium botulinum Small pox	Burkholderia mallei Burkholderia pseudomallei Francisella tularensis Yersinia pestis Clostridium botulinum Small pox
	Culture – Multi Drug Resistant Organisms (MRSA, VRE, ESBL, CRE) Any Source	Positive – hospitalized, long-term care	Positive – hospitalized
	Malaria Antigen Test* Blood	Positive	Positive
	Ova and Parasite Exam* Stool Liver	Positive for Entamoeba histolytica	Positive for Entamoeba histolytica
	Smear, Acid Fast	Positive	----
	Bordetella pertussis* Nasopharynx	Positive	Positive
	GI Panel Stool	Positive for: Vibrio Cholerae Shiga-toxin-producing E. coli Entamoeba histolytica Norovirus (hospitalized, long term care)	Positive for: Vibrio Cholerae Shiga-toxin-producing E. coli Entamoeba histolytica Norovirus (hospitalized, long term care)
	HSV 1,2* CSF Amniotic Ocular	Positive	Positive
	Meningitis Panel* CSF	Any Positive	Any Positive
	Toxigenic C. Difficile Stool	Positive - hospitalized, long term care	Positive - hospitalized
	Tuberculosis* Any Source	Positive	Positive

*Testing performed at reference laboratory, critical value designations based on their institutional policies.