

VCU Health Pathology Laboratories
Phone: 804-828-7284 Fax: 804-628-8724
Summary Table of Panic Values / Critical Values

Test	Reference Ranges	Critical Test Values ≤ unless noted	Critical Test Values ≥ unless noted
BODY FLUIDS			
CSF Fluid Total Nucleated Count (TNC)	Adult = 0-5 cells Children: - 0-1 month = 0-27 cells - 1 month – 18 yr = 0-7 cells		WBC≥200 cells/mm ³
CSF Fluid RBC count	Adult = 0-5 cells Children: - 1 month = 0-800 cells - 1-3 months = 0-50 cells - >3 months -18yr = 0-5 cells		Presence of blasts, neoplastic cells, bacteria and/or yeast after smear confirmation determined as clinically relevant by Pathologist.
Body Fluids - Pleural	RBC = <100,000 cells TNC = 1395 – 3734 cells		
Body Fluid – Synovial fluid	RBC = 0-2,000 cells TNC = <200 cells		
Body Fluid – Peritoneal Dialysate	RBC = <35 cells TNC = <43 cells		

CHEMISTRY			
Bilirubin, Total			
Age ≤30 days	0.2-1.2 mg/dL	N/A	>15.0 mg/dL
Calcium			
Age <8 days	6.5-12.5 mg/dL	<6.5 mg/dL	>12.5 mg/dL
≥8 days	8.9-10.7 mg/dL	<6.6 mg/dL	>12.0 mg/dL
Glucose			
Age ≤30 days	40-90 mg/dL	<40 mg/dL	>200 mg/dL
>30 days	60-100 mg/dL	<50 mg/dL	>500 mg/dL
Lactate, Blood	0.5-2.0 mmol/L	N/A	>3.0 mmol/L
Magnesium	1.8-2.8 mg/dL	<1.0 mg/dL	>4.9 mg/dL
Phosphorus	2.5-4.6 mg/dL	<1.3mg/dL	NA
Potassium			
Age <3 days	5.0-7.5 mmol/L	<2.8 mmol/L	>7.5 mmol/L
>3 days-3 months	4.0-6.2 mmol/L	<2.8 mmol/L	>6.2 mmol/L
>3 months	3.6-5.1 mmol/L	<2.8 mmol/L	>6.1 mmol/L
Sodium	135-145 mmol/L	<125 mmol/L	>155 mmol/L
Troponin	≤0.19 ng/mL	N/A	≥0.2 ng/mL

COAGULATION			
Activated partial thromboplastin time (APTT)	25-36 sec		>150 sec
D-Dimer	<0.50 ug/mL FEU		≥5.0 ug/mL FEU
Fibrinogen	200-450 mg/dL	≤60 mg/dL	
Protime (PT)	12.3 – 14.8 sec		INR ≥5.0

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HEMATOLOGY			
Hemoglobin	For Age Specific Reference Ranges Refer to Pathology Directory of Laboratory Services Appendices	≤ 7.0 g/dL	≥ 20.0 g/dL* (Except newborn infants.)
Hematocrit (Only if Hemoglobin is not reported)		≤ 20.00%	N/A
Platelet		≤ 20(x10e9/L)	≥ 1000(x10e9/L)
WBC		≤ 2.0(x10e9)	≥ 50.0(x10e9/L)
Peripheral Smear Findings		Presence of blasts, intra, or extra cellular organisms determined as clinically relevant by Pathologist.	N/A
Critical values are called each occurrence except on inpatients with known hematologic disturbance.			

IMMUNOLOGY			
Cryptococcal Antigen	Negative	Positive	* Infectious Disease Clinic called for first time positives only.
HIV 1/2 Ab Confirmation and Differentiation	Negative	Positive	Positive results from a patient with previously confirmed positive results for HIV 1/2 Antibody are not called.
HSV 1/2 PCR	Negative	Positive HSV1, Positive HSV2	*call during business hours for children <10 yrs old
VZV PCR	Negative	Positive	

MICROBIOLOGY			
AFB smears	No AFB seen	Positive*	*Attending physician notified the following business day.
Blood cultures	No growth	Positive	
Bordetella pertussis by nucleic acid detection	Negative	Positive	
CSF cultures	No growth	Positive	
CSF Gram stain	No organism seen	Positive	

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MICROBIOLOGY

Cultures positive for the growth of: <i>Brucella species</i> <i>Bacillus anthracis</i> <i>Blastomyces dermatitidis</i> <i>Bordetella pertussis</i> <i>Burkholderia mallei</i> <i>Burkholderia pseudomallei</i> <i>Candida auris</i> <i>Clostridium botulinum</i> <i>Coccidioides immitis</i> <i>Corynebacterium diphtheria</i> <i>Francisella tularensis</i> <i>Haemophilus influenza-sterile sites or wounds</i> <i>Listeria species</i> <i>Paracoccidioides brasiliensis</i> <i>Salmonella sp. – other than stool</i> <i>Shigella spp. - other than stool</i> <i>Sporothrix schenckii</i> <i>Streptococcus Group A – from sterile sites or wounds only</i> <i>Streptococcus pneumonia</i> , in sterile sites other than blood and CSF in children less than 5 years. <i>Talaromyces marneffe</i> <i>Vibrio spp.</i> <i>Yersinia spp.</i>	No growth	Positive	
Legionella culture or antigen	No growth/Negative	Positive	
Malaria/Blood Parasite Smears	Negative	Positive	
Mycology cultures (from sterile sites only)	No growth	Positive	
SARS-CoV-2 (COVID-19)	Negative	Positive	*inpatient positive results only

TOXICOLOGY

Acetaminophen	10.0-20.0 mg/L	N/A	>100 mg/L
Alcohols			
• Acetone	None Detected	N/A	>100 mg/dL

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• Ethanol	<10 mg/dL	N/A	≥400 mg/dL
• Isopropanol	None Detected	N/A	>20 mg/dL
• Methanol	None Detected	N/A	>20 mg/dL
Amikacin			
• Unspecified	1.0-35 mg/L	N/A	>40 mg/L
• Trough	1.0-8.0 mg/L	N/A	>10 mg/L
• Peak	25.0-35.0 mg/L	N/A	>40 mg/L
Barbiturate Scan			
• Amobarbital	1-5 mg/L	N/A	10 mg/L
• Butabarbital	1-5 mg/L	N/A	10 mg/L
• Butalbital	1-5 mg/L	N/A	10 mg/L
• Pentobarbital	1-5 mg/L	N/A	10 mg/L
• Secobarbital	1-2 mg/L	N/A	5 mg/L
Caffeine	3.0-15.0 mg/L	N/A	>50.0 mg/L
Carbamazepine	4.0-12.0 mg/L	N/A	>15.0 mg/L
Digoxin	0.5-2.0 ng/mL	N/A	>2.4 ng/mL
Ethylene glycol	None Detected	N/A	>0.00 mg/dL
Gentamicin			
• Unspecified	0.5-10.0 mg/L	N/A	>12.0mg/L
• Trough	0.5-2.0 mg/L	N/A	>2.0 mg/L
• Peak	0.5-10.0 mg/L	N/A	>12 mg/L
Heavy Metals	none detected	N/A	any positive
Ibuprofen	10-50 mg/L	N/A	200 mg/L
Lamotrigine	0.5-15.0 mg/L	N/A	20 mg/L
Lidocaine	1.0-5.0 mg/L	N/A	>6.0 mg/L
Lithium	0.5-1.5 mmol/L	N/A	>2.0 mmol/L
Methotrexate, 24 hours	0.00-9.99 μmol/L	N/A	>9.99 μmol/L
Phenobarbital	15.0-40.0 mg/L	N/A	>50.0 mg/L
Phenytoin, Free	1.0-2.0 mg/L	N/A	>4.0 mg/L
Phenytoin, Total	10.0-20.0 mg/L	N/A	>40.0 mg/L
Salicylate	150-250 mg/L	N/A	>500 mg/L
Sweat Chloride	0-29 mmol/L	N/A	>29 mmol/L
Theophylline			
Age ≤31 days	10.0-20.0 mg/L	N/A	>25.0 mg/L
>31 days	10.0-20.0 mg/L	N/A	>40.0 mg/L
Thiocyanate	50-100 mg/L	N/A	>100 mg/L
Tobramycin			
• Unspecified	0.5-10.0 mg/L	N/A	>12.0 mg/L
• Trough	0.5-1.5 mg/L	N/A	>2.0 mg/L
• Peak	0.5-10.0 mg/L	N/A	>12.0 mg/L
Tricyclics Antidepressant	80-200 ng/mL	N/A	>500 ng/mL
Valproic Acid, Total	50.0-100.0 mg/L	N/A	>200.0 mg/L
Vancomycin			

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<ul style="list-style-type: none"> • Trough • Random 	15.0-10.0 µg/mL 10.0-40.0 µg/mL	<8.0 µg/mL N/A	>25 µg/mL >90 µg/mL
Voriconazole	1.0-5.5 µg/mL	N/A	>5.5 µg/mL