

Critical Values List – Central Laboratory

Section: Automated Core Lab

Test	Value	Comments
Bicarbonate (Total CO ₂)	<10 or >40 mmol/L	
Bilirubin, Total	>15 mg/dL	
Calcium, Total	<6.0 or >13.0 mg/dL	
Glucose	<40 or >450 mg/dL	
Iron	>300 ug/dL	
Lamotrigine	≥60 ug/mL	
Levetiracetam (Keppra)	≥150 ug/mL	
Magnesium	<1.0 or >9.0 mg/dL	
Phosphorus	<1.0 or >9.0 mg/dL	
Potassium	<3.0 or >6.1 mmol/L	
Sodium	<120 or >160 mmol/L	
Topiramate	≥40 ug/mL	

Section: Hemostasis/Thrombosis (Coagulation)

Test	Value	Comments
Prothrombin Time	≥43.3 seconds	
INR	≥5.0	
PTT	≥85 seconds	
Fibrinogen	<100 mg/dL	
Factors 2, 5, 8, 9, 11	≤ 5%	
Factor 7	≤ 6%	
Factor 10	≤ 7%	

Section: Immunology

Test	Value	Comments
Immunoglobulin IgG	<200 mg/dL	0-1 month
	<150 mg/dL	2-5 months
	<200 mg/dL	6-11 months
	<250 mg/dL	1-150 yrs.

Section: Infectious Disease

Test	Value	Comments
Detection of any infectious agent:	By:	
Blood or Bone Marrow	Positive Culture or Smear	AFB, bacterial, fungal, viral, parasitic
Body Fluid	Positive Culture or Smear	AFB, bacterial, fungal, viral,

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Test	Value	Comments
		parasitic (except gastrointestinal fluid sources)
CSF or other Central Nervous System specimen	Positive Culture, Smear, or Antigen detection	AFB, bacterial, fungal, viral (except Enterovirus), parasitic
CSF or other Central Nervous System specimen	Nucleic Acid Testing (NAT)	All pathogens except Enterovirus, EBV, JC virus, and Parvovirus.
Eye (conjunctiva)	Positive Culture or Smear, NAT	AFB, fungal, viral Bacterial limited to Chlamydia and <i>N. gonorrhoeae</i> , parasitic
Eye (Invasive sites)	Positive Culture, Smear, or NAT	AFB, bacterial, fungal, viral, parasitic
Tissue	Positive Culture or Smear	AFB, bacterial, fungal, viral, parasitic
Detection of specific infectious agent	By	In
Acanthamoeba and Naegleria spp.	Positive Culture or Smear	
Blood parasites	Positive Smear or Rapid Antigen	
Cryptococcal	Positive Antigen	
Measles	Positive Culture	
Mumps	Positive Culture	
<i>Mycobacterium sp.</i> , Acid Fast Bacillus (AFB) (<i>M. tuberculosis</i>)	Positive stain, culture, or NAT	
Pneumocystis	Positive stain	
Polio	Positive Culture	
Select Agents and other highly pathogenic organisms (<i>Bacillus anthracis</i> , Brucella, <i>Burkholderia pseudomallei</i> , <i>Coccidioides immitis</i> , Francisella, <i>Yersinia pestis</i> , and <i>C. diphtheria</i> , Listeria, <i>Salmonella typhi</i> , <i>Vibrio cholera</i> , <i>Vibrio vulnificus</i>)	Positive Culture	
Streptococcus pneumonia	Antigen detection	Urine or CSF
Ureaplasma or <i>Mycoplasma hominis</i>	Positive Culture	Neonate < 3 month of age
Virus Detection – other sources	Positive culture or smear	Neonate < 3 months of age

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Section: Clinical Toxicology

Test	Value	Comments
Ethylene Glycol	>20 mg/dL	
Methanol	>20 mg/dL	

Section: Trace Elements

Test	Value	Comments
Lead	≥1000 µg/L	Urine
	≥45 µg/dL (birth thru 15 yr)	Blood
	≥70 µg/dL (>15 years)	Blood

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