

FAIRVIEW HEALTH SERVICES: CRITICAL VALUES

Policy: Critical results, including those determined by reference laboratories, are telephoned to the patient care provider (i.e., physician, nurse or charge nurse) or referring institution immediately. Staff accepting results must repeat values back to verify accuracy. This is documented in the LIS including time of call; person called to and read back by; and initials of caller. Some critical values are called at first occurrence rather than every occurrence as determined by individual site policy. Critical results not specifically ordered but noted at the time of testing (e.g., electrolytes with blood gases), will be reported as a critical value.

CHEMISTRY (Blood)	Less than	Greater than
Ammonia		>100 µmol/L
Bilirubin, Neonatal		>19.9 mg/dL
Calcium, Ionized	<3.2 mg/dL	>6 mg/dL
Calcium, Total	<7 mg/dL	>12 mg/dL
Carboxyhemoglobin		>10%
CO ₂ , Total	<15 mmol/L	>40 mmol/L
Creatine Kinase, Total		>1000 U/L
Glucose (0-71 h)	<40 mg/dL	>200 mg/dL
Glucose (3 d-5 mo)	<50 mg/dL	>200 mg/dL
Glucose (6 mo and up)	<50 mg/dL	>400 mg/dL
Ketone		>1.5 mmol/L
Lactate		>5 mmol/L
Magnesium	<1 mg/dL	>4 mg/dL
Methemoglobin		>35%
Osmolality	<260 mmol/L	>320 mmol/L
Phosphorus	<1 mg/dL	> 10 mg/dL
pH	<7.25	>7.60
pCO ₂	<20 mmHg	>60 mmHg
pO ₂ , Arterial	<51 mmHg	
pO ₂ , Capillary	<30 mmHg	
Bicarbonate	<15mol/L	>40mol/L
Potassium	<3 mmol/L	>6 mmol/L
Sodium	<125 mmol/L	>160 mmol/L
Troponin		>0.120 µg/L
Urea Nitrogen (BUN)		> 100 mg/dL
CHEMISTRY (CSF)		
Glucose - CSF	< 40 mg/dL	
COAGULATION		
INR		>5.5
PTT		>105 sec
Fibrinogen Activity	<150 mg/dL	
HEMATOLOGY		
Hemoglobin*	<8 g/dL	
WBC*	<2 10 ⁹ /L	>25 10 ⁹ /L
Platelet*	<50 10 ⁹ /L	>1000 10 ⁹ /L
Absolute Neutrophil*	<0.5 10 ⁹ /L	

*First result only at University of Minnesota Medical Center, Fairview

DRUG LEVEL (Blood)	Greater than
Acetaminophen	>20 mg/L
Amikacin	>45 mg/L
Carbamazepine	>15 mg/L
Digoxin	>2.5 µg/L
Ethanol	>0.10 g/dL
Gentamicin	>16 mg/L for traditional dosing; >22 for single daily dosing
Lithium	>2 mmol/L
Mycophenolic Acid	>10 mg/L
Phenobarbital	>50 mg/L
Phenytoin	>30 mg/L
Phenytoin, Free	>3 mg/L
Rapamycin	> 20 ug/L
Salicylate	>30 mg/L
Tacrolimus	> 40 ug/L
Theophylline	>25 mg/L
Tobramycin	>16 mg/L for traditional dosing; >22 for single daily dosing
Valproic Acid, Free	>25 mg/L
Valproic Acid	>150 mg/L
Vancomycin	>60 mg/L
URINALYSIS	
Ketones, 0-7 days	positive with acid pH
Porphobilinogen	positive
BLOOD BANK	
Antibody Screen	positive
Fetal Hemoglobin/ Kleihauer Betke	positive

For Sendout testing, please consult the Lab Guide.

MICROBIOLOGY CRITICAL VALUES***

*** Results are called, faxed, or sent via printer as determined by location preference. Result notification/readback documented in computer as appropriate.

Acid Fast Bacillus Stain and/or culture	Positive
Gram Stain	Positive CSF stain and all STAT stains
Blood Culture	Any bacterial or Mycobacterial isolate, yeast, or fungus.
Body Fluid culture from a normally sterile site	Any bacterial or Mycobacterial isolate, yeast, or fungus
Bone Culture	Any bacterial or Mycobacterial isolate, yeast, or fungus.
Bone Marrow Culture	Any bacterial or Mycobacterial isolate, yeast, or fungus.
Brain Abscess	Any bacterial or Mycobacterial isolate, yeast, or fungus
Cerebrospinal Fluid Culture	Any bacterial or Mycobacterial isolate, yeast, or fungus.
Pleural Fluid Culture	Any bacterial or Mycobacterial isolate, yeast, or fungus.
Chlamydia or G.C. by PCR	Positive
Cryptococcal Antigen	Positive
Parasite Smears, Blood and Tissue	Detection of malarial parasites or other blood parasites, i.e., Erlichia, Babesia.
KOH Preparation	Spherules are consistent with the tissue phase of <i>Coccidioides immitis</i> . Broad-based budding yeast is consistent with tissue phase of <i>Blastomyces dermatidis</i> . Presence of fungal elements.
India Ink Preparation	Presence of encapsulated yeast.
Fungus Culture (Non-Blood)	Isolation of <i>Cryptococcus neoformans</i> , <i>Coccidioides immitis</i> , <i>Histoplasma capsulatum</i> , <i>Blastomyces dermatidis</i> , <i>Sporothrix schenckii</i> , and other fungi.
5-Fluorocytosine Level	>100 ug/mL
<i>Clostridium difficile</i> toxin A	Positive
Legionella Urinary Antigen	Positive
Bacterial Antigen Detection (BAD) Test	Positive
Throat Culture	Presence of Group A beta hemolytic streptococcus
Stool Culture	Positive for <i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> , or <i>E. coli</i> 0157 , <i>Vibrio</i> , <i>Yersinia</i>
Any Source	Positive culture for MRSA , VRE or ESBL (first isolate)
OB Clinic, Labor & Deliver, Nursery	Positive Beta Strep Grp B PCR result or culture. Exceptions: Physicians at Red Wing and Lakes have requested no calling of these results as the results print directly to the ER/PCU or are obtained from Epic.
Positive culture for the following organisms	<i>Bordetella pertussis</i> , <i>Brucella</i> , <i>Francisella</i> , <i>Legionella</i> , <i>Neisseria gonorrhoeae</i> , <i>Nocardia</i>
Virology	Critical Value
Cytomegalovirus (CMV) PCR	First positive
Epstein-Barr Virus (EBV) PCR	First positive