



LABORATORY CRITICAL VALUES LIST

CHEMISTRY		
TEST	LOW LIMIT	HIGH LIMIT
Alcohol Level (Ethanol)	N/A	> 0.40 g/dL
Ammonia	N/A	> 100 µmol/L
Amylase Level	N/A	> 400 IU/L
Arterial pH	< 7.11	> 7.59
Bile Acids Total	N/A	> 40 µmol/L
Bilirubin, Total (Pediatric)	N/A	>15 mg/dL
Bilirubin, Total (Adult)	N/A	>19 mg/dL
Calcium	≤ 6.0 mg/dL	≥ 13.0 mg/dL
Carboxyhemoglobin	N/A	> 20%
Glucose	< 50 mg/dL	> 500 mg/dL
HIV p24 Ag or Ab	N/A	Confirmed Positive
HIV-1 Rapid Screen	N/A	Presumptive Positive
Ionized Calcium	< 0.5 mmol/L	> 2.0 mmol/L
Lactic Acid	N/A	> 2.0 mmol/L
Lithium Level	N/A	> 1.49 mmol/L
Magnesium	< 1.0 mg/dL	> 6.0 mg/dL
Phosphorus	< 1.0 mg/dL	N/A
Potassium	< 3.0 mmol/L	> 6.0 mmol/L
Sodium	< 126 mmol/L	> 160 mmol/L
Troponin	N/A	≥ 0.03 ng/mL for all ED & Inpatients
Must Call but NOT Critical Test		
Fetal fibronectin (FFN)	N/A	Positive
HBsAG	N/A	Positive (Preliminary and confirmation)
Hepatitis C Antibody	N/A	Positive (Preliminary and confirmation)
Therapeutic Drugs/Toxicology		
Acetaminophen	N/A	> 150 µg/mL
Carbamazepine	N/A	> 15 µg/mL
Digoxin	N/A	> 2.5 µg/mL
Gentamicin	N/A	Trough > 2.0 µg/mL
Phenytoin	N/A	> 30.0 µg/mL
Phenobarbital	N/A	> 60 µg/dL
Salicylate	N/A	> 30 µg/mL
Theophylline	N/A	> 25 µg/mL
Valproic Acid (Depacote)	N/A	> 200 µg/mL
Vancomycin	N/A	Trough > 20.0 µg/mL

HEMATOLOGY		
TEST	LOW LIMIT	HIGH LIMIT
WBC (x10 ³ /mcL) Birth – Day1 Day 1 – Day 7 >7 Days	<2.5	≥ 32.0
	<2.5	≥ 36.0
	<1.0	≥ 50.0
Absolute Neutrophil Count (x10 ³ /mcL)	< 0.5 Neutropenia	N/A
Hemoglobin g/dL Birth - 30 Days 1 Mo. -2 Months > 2 Months - 14 Years > 14 Years	<12.0	N/A
	<9.0	N/A
	<8.0	N/A
	<7.0	N/A
Platelets (x10 ³ /mcL) Birth – 14 Years >14 Years	< 100	N/A
	< 50	N/A
Blasts on peripheral blood smear	N/A	Any Amount
Coagulation		
PT-INR	N/A	> 5.0
Partial Thromboplastin Time (sec)	N/A	> 100.0
HIT-Ab	N/A	Positive

BLOOD BANK	
TEST	CRITICAL VALUE
Crossmatch after emergency release	Discovery of an incompatibility upon completion of testing
Transfusion Reaction Workup	- Discovery of hemolysis or incompatibility - True positive gram stain or culture of residual blood component
Antibody titer	> 1:8

SURGICAL PATHOLOGY
- Absence of product of conception in uterine content when intrauterine pregnancy is clinically expected - Adipose tissue in endometrial curettage or endoscopic colonic polypectomy - Bacterial or fungi in bone marrow - Bacterial or fungi in CSF cytology - Corrected report affecting patient management - Invasive microorganisms in specimens of immunocompromised patients - Leukocytoclastic vasculitis - Significant disagreement between frozen section and permanent diagnosis - Unexpected diagnosis of malignancy, such as malignancy found in uncommon location or type of specimen, i.e., hernia sac, intervertebral disc - Unexpected organ or tissue in a specimen with clinical significance

MICROBIOLOGY		
TEST	CRITICAL VALUE	PERFORMING LAB
Amniotic Fluid Gram Stain	Positive smear	WIH
Blood Cultures gram stain	Positive smear	Kent
Cerebrospinal Fluid (CSF) gram stain	Positive smear	Kent
Cryptococcal Antigen test	Positive	Kent
Rapid RSV test	Positive	Kent
Rapid Strep A test	Positive	Kent
Invasive Group A Strep Culture (urine, soft tissue, sterile sites)	Positive	WIH
Must Call but NOT Critical Test		
Synovial fluid Gram Stain	Positive	WIH
AFB Smear &/or Culture Positive	Positive	RI State Lab
Chlamydia trachomatis & Neisseria gonorrhoeae Probe	Positive	WIH
Group B Strep from newborn or maternal specimens: Isolation/Identification/Antigen Detection – Hospital Patients only	Positive	WIH
Throat culture: Group A Strep Isolation/Identification	Positive	WIH
Extended – spectrum Beta-Lactamase (ESBL) – Hospital Patients only	Isolation of ESBL	WIH
Isolation of: Salmonella, Shigella, Yersinia, Vibrio, Campylobacter, E.Coli O157:H7, Aeromonas and Plesiomonas from Enteric cultures.	Isolation of these organisms	WIH
Isolation of: Listeria monocytogenes, Yersinia pestis, Bacillus anthracis, Bordetella pertussis, Vibrio cholera, Legionella species, Clostridium botulinum, Brucella species, Corynebacterium diphtheriae, Erysipelothrix rhusiopathiae, Francisella tularensis, Burkholderia mallei	Isolation of any organism on list	WIH
Clostridium difficile Toxin DNA	Positive	Kent
Blood Smears for Parasitic exams	Positive	WIH
MRSA and VRE DNA testing - Hospital Patients only	Positive	Kent
Staphylococcus aureus – VRSA Vancomycin intermediate or resistant	Isolation of VRSA	WIH
Neisseria meningitidis Blood & CSF isolates only	Positive	WIH
Stenotrophomonas maltophilia - Hospital Patients only	Isolation of Stenotrophomonas maltophilia	WIH
Rapid Flu Testing (Type A/B)- Inpatient Only	Positive	Kent