

Policy #:	306 (PLH-306-08)	Effective Date:	9/30/2004	Reviewed Date:	2/4/2011
Subject:	CRITICAL VALUES-COMMONLY ORDERED TESTS				
Approved by: Laboratory Executive Director, Ed Hughes (electronic signature)					
Approved by: Laboratory Medical Director, Mark P. Burton, MD (electronic signature)					

CRITICAL VALUES – COMMONLY ORDERED TESTS

	CRITICAL LOW	CRITICAL HIGH	CALL REPEAT CRITICAL OR COMMENT PREVIOUS
HEMATOLOGY			
HGB	< 6 g/dl	> 20 g/dl	PREVIOUS
HGB, NEONATAL	< 10.0g/dl	>22.0g/dl	PREVIOUS
HCT	< 18 %	>60% female >66%male	PREVIOUS
HCT, NEONATAL	<30%	>70%	PREVIOUS
WBC	< 2,000 nL	> 30,000 nL	PREVIOUS
PLT	≤ 40,000 nL	≥ 1,000,000 nL	PREVIOUS
PLT, NEONATAL	≤ 50,000 nL	≥ 1,000,000 nL	PREVIOUS
BLAST		ANY	PREVIOUS
WBC (CSF)		≥ 50 /cumm	
COAGULATION			
PFA		call as critical only if both phases are abnormal	
APTT		> 100 sec	YES
PT		> 4.5 INR	YES
PT, NEONATAL		>2.5 INR	YES
Fibrinogen	<125mg/dl	>900mg/dl	Yes

CHEMISTRY	CRITICAL LOW	CRITICAL HIGH	CALL REPEAT CRITICAL OR COMMENT PREVIOUS
ARTERIAL BLOOD PH	≤ 7.30	≥ 7.60	YES
ARTERIAL PCO2	≤ 20mmHg	≥ 50 mmHg	YES
ART. PCO2, NEONATAL	≤25 mm Hg	≥ 60 mmHg	YES
ARTERIAL PO2	≤ 55 mmHg		YES
ART. PO2, NEONATAL	≤ 50 mmHg	≥120 mm Hg	YES
BILIRUBIN, TOTAL NEONATAL		>15 mg/dl	PREVIOUS
BUN		≥100 mg/dl	PREVIOUS
BUN, NEONATAL		>50 mg/dl	PREVIOUS
CALCIUM, SERUM	≤ 7 mg/dl	≥ 12.5 mg/dl	YES
CREATININE		≥ 5 mg/dl	PREVIOUS
CREATININE, NEONATAL		≥ 2 mg/dl	PREVIOUS
GLUCOSE, CSF	≤ 20 mg/dl		YES
GLUCOSE, SERUM	≤ 50 mg/dl	≥ 500 mg/dl	YES
GLUCOSE, SERUM, NEONATAL	≤45 mg/dl	≥150 mg/dl	YES
GLUCOSE, SERUM, PEDIATRIC	< 50 mg/dl	>500 mg/dl	YES
LACTIC ACID		≥ 5.0 mmol/L	YES
MAGNESIUM	≤ 1.1 mg/dl	≥ 4.1 mg/dl	YES
PHOSPHORUS, SERUM	≤ 1.4 mg/dl	≥ 10.1 mg/dl	YES
POTASSIUM, SERUM	≤ 3.0 mmol/L	≥ 6.5 mmol/L	YES
SODIUM, SERUM	≤ 120 mmol/L	≥ 159 mmol/L	YES
IONIZED CALCIUM	≤ 3.0 mg/dl	≥ 7.0 mg/dl	YES
TROPONIN I (ECi-Core Lab)		≥ 0.12 ng/mL	PREVIOUS
HbsAg		POSITIVE	PREVIOUS
AHBcM		POSITIVE	PREVIOUS
AHAV-M		POSITIVE	PREVIOUS
AHCV		POSITIVE	PREVIOUS

THERAPEUTIC DRUGS	CRITICAL LOW	CRITICAL HIGH	CALL REPEAT CRITICAL OR COMMENT PREVIOUS
ACETAMINOPHEN (4 HRS after ingestion)		≥ 150 mcg/ml	Previous
AMIKACIN, TR		≥ 8.0 mcg/ml	Previous
AMIKACIN, PK		≥ 30 mcg/ml	Previous
CARBAMAZEPINE		≥ 16 mcg/ml	Previous
DIGOXIN		≥ 2.0 ng/ml	Previous
DILANTIN		≥ 30 mcg/ml	Previous
GENTAMICIN, TR		≥ 2.0 mcg/ml	Previous
GENT. TROUGH, NEONATAL		≥ 1.0 mcg/ml	Previous
GENTAMICIN, PK		≥ 24.0 mcg/ml	Previous
LIDOCAINE		≥ 7.0 mcg/ml	Previous
PHENOBARBITAL		≥ 60 mcg/ml	Previous
THEOPHYLLINE		≥ 20 mcg/ ml	Previous
TOBRAMYCIN, TR		≥ 2.0 mcg/ml	Previous
TOBRAMYCIN, PK		≥ 24.0 mcg/ml	Previous
VANCOMYCIN, TR		≥ 23.0 mcg/ml	Previous
VANCOMYCIN, TR, NEONATAL		≥ 20.0 mcg/ml	Previous
VANCOMYCIN, PK		≥ 40.0 mcg/ml	Previous
VALPROIC ACID		≥ 150 mcg/ml	Previous
IMMUNOLOGY	CRITICAL LOW	CRITICAL HIGH	CALL REPEAT CRITICAL OR COMMENT PREVIOUS
C. Difficile		POSITIVE	PREVIOUS
HEPARIN AB	BORDERLINE or POSITIVE		YES
EHEC – Shiga-Toxin		POSITIVE	

Microbiology critical values are called to the physician, or the physician on call, from the hours 07:00 - 20:00. After these hours, the nurse in charge of the patient is called. Microbiology reports include:

- Positive Gram stain/culture of blood or sterile body fluid
- Positive Direct tube Coagulase on blood cultures.
- Positive acid fast stain or mycobacteria culture result
- All stat procedures requested to be telephoned
- Enteric pathogens (Salmonella, Shigella, Campylobacter, E.coli O157, Shiga-Toxins)
Note: E. coli Shiga-Toxins are performed in Immunology
- Multiple Resistant Organism result that may require immediate change in patient care or isolation
- Systemic fungi such as Histoplasma; Blastomyces; and Cryptococcus spp. from any source.
- Group B Beta Streptococcus culture/positive on inpatient pregnant females (that have delivered) and infants
- Positive Streptococcus (GPC in chains) and GNR gram stain/culture of placenta cultures.
- Positive Neisseria meningitidis/gonorrhoeae cultures.
- Cl. perfringens or Cl. septicum isolated from blood or other sites.
- Parasites
- Positive Antigen Tests on CSF.
- Isolation of any organism that can be associated with a bioterrorism incident (ex. Anthrax, Yersinia pestis, etc.)
- Positive Bordetella DFA and/or culture.
- Positive viral culture on bronchial lavage, bronchial washing, or bronchial brushes.
- Any fungi isolated in a fine needle aspirate.
- Any bacteria isolated from a heart valve