

LABORATORY CRITICAL VALUES TEST LIST - APPENDIX A – APPENDIX A

APPENDIX A: CRITICAL VALUES TEST LIST

CRITICAL TESTS (All results to be called)

- Surgical Pathology Frozen Section

CHEMISTRY:**CRITICAL VALUES:**

- Amylase----- Above 345 IU/L
- Bilirubin, Neonate Total---- Above 15 mg/dl
- Calcium----- Below 6 mg/dl or above 14 mg/dl
- Ionized Calcium----- Below 3.0 mg/dl or above 6.5 mg/dl (adults)–Below 2.0 mg/dl or above 6.0 mg/dl (≤1 yr)
- Carbon Monoxide (CO)----- Above 20%
- TCO₂----- Below 15 meq/l or above 50 meq/l
- Glucose----- Below 40 mg/dl or above 700 mg/dl
- Glucose (NEWBORN) ----- Below 30 mg/dl or above 300 mg/dl
- Glucose (CSF) ----- Below 40 mg/dl
- Lactic Acid (plasma) ----- Above 5.0 mmol/L
- Lactic Acid (CSF) ----- Above 3.2 mmol/L
- Magnesium----- Below 1.2 mg/dl or above 4.9 mg/dl
- Potassium----- Below 2.5 meq/l or above 6.5 meq/l
- Potassium (NEWBORN) --- Below 2.5 meq/l or above 7.0 meq/l
- Sodium----- Below 120 meq/l or above 160 meq/l
- Total T₄----- Below 2 ug/dl or above 20 ug/dl
- Troponin I----- >= 0.31 ng/mL
- pH----- Below 7.2 or above 7.6
- PCO₂----- Below 20 mm Hg or above 70 mm Hg
- PO₂----- Below 40 mm Hg
- Acetaminophen----- Above 50 ug/ml
- Alcohol----- Above 300 mg/dl
- Carbamazepine----- Above 12 mcg/mL
- Digoxin----- Above 2.5 ng/ml
- Dilantin/Phenytoin----- Above 30 ug/ml
- Lithium----- Above 1.5 mEq/l (Above 1.2 mEq/l (State Operated Services))
- Phenobarbital----- Above 50 ug/ml
- Salicylates----- Above 30 mg/dl
- Theophylline/Aminophy---- Above 20 ug/ml (neonates >10)
- Valproic Acid----- Above 150 ug/ml
- Gentamicin----- Above 2 ug/ml trough, Above 16 ug/ml peak
- Tobramycin----- Above 2 ug/ml trough, Above 16 ug/ml peak
- Vancomycin----- Above 40 ug/ml peak

ALERT VALUES

- Magnesium – Call all results for OB patients on Magnesium

HEMATOLOGY/COAGULATION:**CRITICAL VALUES:**

- Prothrombin Time----- Greater than 55 seconds
- INR----- Greater than 5.0
- APTT (PTT)
 - On Heparin----- Greater than 90 seconds
(Therapeutic Range: up to 60 seconds)
 - Not on Heparin--- Greater than 70 seconds
- Fibrinogen----- Less than 90 mg/dl
- Hemoglobin----- Below 5 or above 20 gm/dl
- Hematocrit----- Below 15%
- Platelets----- Below 10,000/mm³
Neonates Below 30,000/mm³
- WBC----- Below 2,000 or above 50,000/mm³
- Blasts seen on smears > 1 month (unless previously known)

ALERT VALUES

- Blood Parasites from Peripheral Smear
- Malignant cells seen in body fluids

BACTERIOLOGY/MOLECULAR:**CRITICAL VALUES:**

- Positive Blood Culture
- Any indication of Clostridium perfringens on wound culture
- Cryptococcal Antigen
- Any positive gram stain or culture on CSF
- Any positive systemic Fungus culture
- Any positive Group B strep screen or PCR on inpatients
- Any Group B strep isolated from newborns

LABORATORY CRITICAL VALUES TEST LIST - APPENDIX A – APPENDIX A**ALERT VALUES**

- Any positive TB smears or cultures
- Increased Antimicrobial Resistance:
 - Carbapenemase-producing *Enterobacteriaceae* (CRE or KPC)
 - ESBL on inpatient cultures
 - Methicillin resistant *Staphylococcus aureus* on inpatients (MRSA)
 - Vancomycin resistant *Enterococci* isolated on inpatients (VRE)
 - Vancomycin intermediate or resistant *Staphylococci* (VISA or VRSA)
- *C. difficile* on inpatients
- Legionella Urine Antigen
- Endotoxin testing is positive for Hemodialysis samples
- *Biofire* Respiratory Panel: when *B. pertussis* DNA detected
- *Biofire* Stool studies when positive (pathogen is detected)

URINALYSIS: (NEWBORNS)**CRITICAL VALUES:**

- Positive Ketones

BLOOD BANK**CRITICAL VALUES:**

- An inability to have compatible blood components available due to positive Antibody Screen or other undue delay.

ALERT VALUES

- All Antibody Screens results for pre-surgical patients

ANATOMIC PATHOLOGY/CYTOLOGY**CRITICAL VALUES**

- Malignancy in superior vena cava syndrome*.
- Neoplasms causing paralysis*.
- Bacteria or fungi in CSF cytology.
- Herpes in pap smears of near term pregnant patients*.

*For all of the above marked with a star, the pathologist must be given the appropriate history by the clinician in order to know that these are critical values.

ALERT VALUES

- Any new unexpected malignancy.
- A positive AFB stain.
- New (unexpected) blasts in a blood smear or a new diagnosis of an acute leukemia in a bone marrow.
- Fat in an endometrial curettage (unless a pick up).
- Pneumocystis, fungi (other than contaminating *Candida*), or viral changes in BAL, bronchial washing or brushing cytology.
- Fungi in FNA, other than fungus considered to be contamination (such as from an endoscopic FNA).
- Clinically significant disagreement between frozen section and final diagnosis.
- Clinically significant disagreement between immediate interpretation and final FNA diagnosis.
- Clinically significant disagreement or change between RMH/MPC interpretation and the outside pathologist consultation.
- Fat in a colonic endoscopic polypectomy that does not represent a submucosal or mucosal lipoma
- Any other unexpected, potentially significant finding.
- Any case with a high chance of misunderstanding of key features of the report.

Revised: 11/2002 jab; 4/2003 sas; 3/2005 jab; 5/2006 dkw; 3/2008 sas; 2/2009 jmm; 3/2009 sas; 4/2009 sas; 7/2010 jmm; 3/2011 sas; 4/2011 jmm, 8/2011 jmm, 10/11 jbh, 5/2012 jmm, 7/2012 kks, 5/2013 jmm, 3/2016 kks.

W:\Manuals - Procedure\Laboratory SOP Manual-see Document Control\Laboratory Critical Values Test List - APPENDIX A.doc