

## APPENDIX A: CRITICAL VALUES TEST LIST

### **CRITICAL TESTS (All results to be called)**

- Surgical Pathology Frozen Section

### **CHEMISTRY:**

#### **CRITICAL VALUES:**

▪ Amylase-----	Above 345 U/L
▪ Bilirubin, Neonate Total----	Above 17.0 mg/dL
▪ Calcium-----	Below 6.0 mg/dL or above 11.9 mg/dL
▪ Ionized Calcium-----	Below 0.75 mmol/L or above 1.63 mmol/L
▪ Ionized Calcium (NEWBORN)	Below 0.50 mmol/L or above 1.50 mmol/L
▪ Carbon Monoxide (CO)----	Above 20%
▪ TCO <sub>2</sub> -----	Below or equal to 14 mmol/L or above or equal to 40 mmol/L
▪ Glucose-----	Below 40 mg/dL or above 700 mg/dL
▪ Glucose (NEWBORN) -----	Below 30 mg/dL or above 300 mg/dL
▪ Lactic Acid -----	Above 5.0 mmol/L
▪ Magnesium-----	Below or equal to 1.0 mg/dL or above or equal to 5.0 mg/dL
▪ Potassium-----	Below or equal to 3.0 mmol/L or above or equal to 6.0 mmol/L
▪ Sodium-----	Below or equal to 120 mmol/L or above or equal to 150 mmol/L
▪ Total T <sub>4</sub> -----	Below 2 mcg/dL or above 20 mcg/dL
▪ Troponin I-----	Above 0.30 ng/mL
▪ pH-----	Below 7.2 or above 7.6
▪ PCO <sub>2</sub> -----	Below 20 mm Hg or above 70 mm Hg
▪ PO <sub>2</sub> -----	Below 40 mm Hg
▪ Acetaminophen-----	Above or equal to 120.0 mcg/mL
▪ Alcohol-----	Above 300 mg/dL
▪ Carbamazepine-----	Above or equal to 15.0 mcg/mL
▪ Digoxin-----	Above or equal to 2.50 ng/mL
▪ Dilantin/Phenytoin-----	Above or equal to 30 mcg/mL
▪ Lithium-----	Above or equal to 2.00 mmol/L
▪ Phenobarbital-----	Above or equal to 55.0 mcg/mL
▪ Salicylates-----	Above 30 mg/dL
▪ Valproic Acid-----	Above or equal to 150.0 mcg/mL
▪ Gentamicin-----	Above or equal to 12.0 mcg/mL
▪ Tobramycin-----	Above or equal to 10.0 mcg/mL
▪ Vancomycin-----	Above or equal to 90.0 mcg/mL

#### **ALERT VALUES**

- Magnesium – Call all results for OB patients on Magnesium

### **HEMATOLOGY/COAGULATION:**

#### **CRITICAL VALUES:**

▪ Prothrombin Time-----	Greater than 55.0 seconds
▪ INR-----	Greater than 5.0 seconds
▪ APTT (PTT)	
On Heparin-----	Greater than 200.0 seconds
Not on Heparin--	Greater than 70.0 seconds
▪ Fibrinogen-----	Less than 90 mg/dL
▪ Hemoglobin( Newborn up to 3 months)	Below 5 g/dL or above 30 g/dL
▪ Hemoglobin (3 months and older)	Below 5 g/dL or above 20 g/dL
▪ Hematocrit-----	Below 15%
▪ Platelets (Newborn to 18 years)	Below 30 10 <sup>3</sup> /uL
▪ Platelets (18 years and older)	Below 10 10 <sup>3</sup> /uL
▪ WBC (Newborn to 4 days)	Below 1.0 10 <sup>3</sup> /uL or above 40.0 10 <sup>3</sup> /uL
▪ WBC (4 days and older not in Oncology)	Below 1.0 10 <sup>3</sup> /uL or above 30.0 10 <sup>3</sup> /uL
▪ WBC (Adult in Oncology)	Below 1.0 10 <sup>3</sup> /uL or above 100.0 10 <sup>3</sup> /uL
▪ Blasts seen on smears > 1 month (unless previously known)	
▪ Auer rods seen on smears	
▪ Schistocytes 2+ and above seen on smears	

#### **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
- Any positive SARS-CoV-2 – Gene Xpert
- *Biofire* Respiratory Panel: when *B. pertussis* DNA detected or SARS-CoV-2
- *Biofire* Stool studies when positive (pathogen is detected)

#### **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

### **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.