

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% |
| ▪ TCO2----- | Bellow 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 ₄ ----- | 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 ₂ ----- | Below 20 mm Hg or above 70 mm Hg |
| ▪ PO ₂ ----- | 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(3)/uL |
| ▪ Platelets (18 years and older) | Below 10 10(3)/uL |
| ▪ WBC (Newborn to 4 days) | Below 1.0 10(3)/uL or above 40.0 10(3)/uL |
| ▪ WBC (4 days and older not in Oncology) | Below 1.0 10(3)/uL or above 30.0 10(3)/uL |
| ▪ WBC (Adult in Oncology) | Below 1.0 10(3)/uL or above 100.0 10(3)/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

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.