



Critical Test Results (Values)

Chemistry

| Analyte | Pediatric (birth to 18 if not specified) | Adult | Notes |
|---|--|--|--|
| Ammonia | >100 ucmol/L | >100 ucmol/L | |
| Arterial pH | < 7.110, >7.590 | <7.110, >7.590 | |
| Amylase Level | N/A | >400 IntU/L | |
| Bile Acids Total | N/A | ≥100 mcmol/L | |
| Bilirubin, Total | > 15.0 mg/dL | > 19.9 mg/dL | |
| Calcium | Birth-1 Yr < 6.0 mg/dL, > 13.0 mg/dL | < 7.0 mg/dL, > 12.0mg/dL | |
| CO2 | N/A | ≥13 Yr ≤10 mmol/L | |
| CPK total | N/A | >1000 IntU/mL | |
| Glucose | Birth-5 Day < 30 mg/dL, >300 mg/dL 5 Day-12 Yr < 50 mg/dL, >300 mg/dL | < 50 mg/dL, > 500 mg/dL | |
| Glucose, CSF | < 40 mg/dL, > 80 mg/dL | < 40 mg/dL, > 80 mg/dL | |
| HIV P24 Ag or Ab (DOH) | Confirmed Positive | Confirmed Positive | |
| Lactic Acid | N/A | >2 mmol/L | |
| Lithium Level | N/A | >1.49 mmol/L | |
| Magnesium | < 1.0 mg/dL, > 7.0 mg/dL | < 1.0 mg/dL, > 6.0 mg/dL | |
| Phosphorus | < 1.0 mg/dL | < 1.0 mg/dL | |
| Protein, CSF | 0-8 Day < 40 mg/dL, > 120 mg/dL 8 Day – 1Mth < 20 mg/dL, > 80 mg/dL 1 Mth- 12 Yr < 15 mg/dL, > 40 mg/dL | < 8 mg/dL, > 40 mg/dL | |
| Potassium | 0 Day-1 Mth < 2.4 mmol/L > 6.4 mmol/L 1 Mth-12Yr <3.0 mmol/L, > 6.0 mmol/L | <3.0 mmol/L, >6.0 mol/L | |
| Sodium | < 12 Yr < 125 mmol/L, > 150 mmol/L | 126 mmol/L, >160mmol/L | |
| Troponin-Hs | ≥ 64 ng/L Delta ≥ 10 @ 2hours Delta ≥ 15 @ 4 hours | ≥ 64 ng/L Delta ≥ 10 @ 2hours Delta ≥ 15 @ 4 hours | |
| MUST CALL OR FAX BUT NOT CRITICAL TEST RESULTS | | | |
| Fetal fibronectin (FFN) | N/A | Positive | |
| HBsAG | N/A | Confirmation performed at W&I. Results called when confirmation is complete. | |
| Meconium drug screen w/confirmation | Positive | N/A | |
| Urine Drug screen | New Positive (Inpatients only) | New Positive (Inpatients only) | N/A for Butler patients |
| Syphilis Antibody screen | Preliminary positive | Call once confirmed positive from RIDOH | Preliminary positive for Butler patients |



Therapeutic Drug Critical Values

| Drug | Therapeutic Range | Critical Value |
|---------------|---|----------------------|
| Gentamicin | Peak: 5.0 – 10.0 mcg/mL Trough: 0.5 – 2.0 mcg/mL | Trough >2.0 mcg/mL |
| Phenobarbital | 15.0 – 40.0 mcg/mL | > 60.0 mcg/mL |
| Valproic Acid | 35.0 – 100 .0 mcg/mL | >200 mcg/mL |
| Vancomycin | Peak: 20.0 – 40 .0 mcg/mL Trough: 10-20 mcg/mL | Trough > 20.0 mcg/mL |

Hematology, Coagulation & Urinalysis

| Analyte | Pediatric (birth to 18 if not specified) | Adult | Notes |
|---|---|---|---------------------------|
| Absolute Neutrophil Count | <0.5 (x10 ³ mcl) Neutropenia | <0.5 (x10 ³ mcl) Neutropenia | |
| Anti-Xa UF | ≥0.8 IU/mL | ≥0.8 IU/mL | |
| Anti-Xa LMW | ≥1.0 IU/mL | ≥1.0 IU/mL | |
| Blasts on peripheral smears | Any amount | Any amount | |
| Blood parasites | Ring form seen | Ring form seen | |
| Hemoglobin | Birth - 30 Days <12.0 g/dL 1 Mth - 2 Mth <9.0 g/dL > 2Mth -14 Yr < 8.0 g/dL > 14 Yr <7.0 g/dL | <7.0 g/dL | |
| Platelets | Birth -14 Yr <100 (x10 ³ mcl) >14 Yr <50 (x10 ³ mcl) | <50 (x10 ³ mcl) | |
| PT-INR | >5.0 secs | >5.0 secs | |
| Partial Thromboplastin Time | >100 secs | >100 secs | |
| WBC (x10 ³ mcl) | Birth-1 Day <2.5, ≥32.0 (x10 ³ mcl) Day 1-Day 7 <2.5, ≥36.0 (x10 ³ mcl) >Day 7 <1.0, ≥50.0 (x10 ³ mcl) | <1.0; ≥50.0 (x10 ³ mcl) | |
| MUST CALL OR FAX BUT NOT CRITICAL TEST RESULTS | | | |
| Serum, Urine Pregnancy | | | Call all Butler positives |



Transfusion Service

| Test or Procedure | Critical Finding | Notes |
|-----------------------------|--|-------|
| Antibody Titer | ≥ 1:8 | |
| Transfusion Reaction Workup | Hemolysis or red blood cell incompatibility | |
| Crossmatch (post-release) | Discovery of an incompatibility upon completion of testing during an emergency release situation | |

Microbiology

| Test or Procedure | Critical Finding | Notes |
|---|-----------------------|---|
| Amniotic Fluid Gram Stain | Positive | |
| Blood Culture | Positive | |
| CSF Gram Stain/Culture | Positive | |
| NICU Preliminary Urine Culture | Positive | |
| Invasive Group A Streptococcus cultures (urine, soft tissue, sterile sites) | Positive | |
| MUST CALL or FAX BUT NOT CRITICAL TEST RESULTS | | |
| | | |
| Sterile body fluid, gram stain | Positive | |
| Staph aureus (MRSA) | Methicillin-resistant | In-patients, NICU screens, implant screens, positive MRSA DNA results |
| Enterococcus (VRE) | Vancomycin-resistant | |
| Staph aureus isolates | Suspected VRSA/VISA | |
| ESBL isolate (extended spectrum beta-lactamase) | Positive | Inpatients |
| CRE isolate (carbapenemase-resistant Enterobacteriaceae) | Positive | Inpatients |
| Stenotrophomonas maltophilia | | Inpatients |
| Neisseria meningitidis | | |
| Viral culture, DFA or PCR | Positive | W&I NICU |
| HSV culture/PCR | Positive | Women of child-bearing age |
| C. difficile toxin by PCR (including EIA confirmatory assay) | Positive | |
| Enteric pathogen culture | Positive | |
| Strep A, Rapid or Culture | Positive | |
| AFB results (smear and/or culture) | Positive | |
| GC culture | Positive | |
| GC or Chlamydia PCR test | Positive | |
| Chlamydia culture | Positive | |
| Pneumocystis jirovecii dfa result | Positive | |
| Legionella | Positive | |



| | | |
|-------------------------------|-----------------------|--|
| Mycoplasma/Ureaplasma culture | Positive | |
| Ova & Parasite results | Positive | |
| Candida auris isolates | Positive or suspected | |

Note: In accordance with MIC 113.1, the Rhode Island Department of Health will be notified if an Agent of Bioterrorism is isolated.

Prenatal & Special Testing

| Test or Procedure | Critical Finding | Notes |
|-------------------|------------------|---|
| N/A | N/A | There are no critical values defined at this time |

Anatomic Pathology and Cytology

| Test or Procedure | Critical Findings |
|---|--|
| Tissue or fluid examination, to include frozen section consults | Any unexpected diagnosis of malignancy |
| Exam for Products of conception | Negative for Products of Conception |
| Endometrial biopsy or curettings | Presence of adipose tissue |
| Anatomic pathology examination | <ul style="list-style-type: none"> • Any unexpected organ or tissue in a specimen; • Any significant change in pathological diagnosis detected by department quality assurance indicators |
| Cytology | <ul style="list-style-type: none"> • A new or unexpected malignancy; • Viral cytopathic changes of Herpes in Pap smear in a pregnant patient; • Corrected reports affecting patient management; • Bacteria or fungus in NON-GYN specimen of an immunocompromised patient; • Bacteria or fungus in cerebrospinal fluid |