

ANNEX A: CURRENT LIST OF CRITICAL TEST RESULTS (Values)**Chemistry**

Analyte	Pediatric	Adult	Butler Hospital
Ammonia ucmol/L	>100	>100	>100
Arterial pH	< 7.110, >7.590	<7.110, >7.590	
Amylase Level IntU/L		>400	>400
Bile Acids Total mcmol/L		>40	>40
Bilirubin, Total mg/dL	> 15.0	> 19.9	
Calcium mg/dL	< 6.1, > 12.9	< 7.0, > 12.0	<7.0, >12.0
CO2 mmol/L	N/A	>=13 Yr ≤10	>=13 Yr ≤10
CPK total IntU/mL	NA	>1000	>1000
Glucose mg/dL	Birth-5 day < 30, >300 5 day-12 yr < 50, >300	< 50, > 500	< 50, > 500
Glucose, CSF mg/dL	< 40, > 80	< 40 > 80	
Hiv P24 Ag or Ab (DOH)	Confirmed Positive	Confirmed Positive	Confirmed Positive
Lactic Acid mmol/L	N/A	>2mmol/L	>2mmol/L
Lithium Level mmol/L	N/A	>1.49	>1.49
Magnesium mg/dL	< 1.0, > 7.0	< 1.0, > 6.0	< 1.0, > 6.0
Phosphorus mg/dL	< 1.0	< 1.0	< 1.0
Protein, CSF mg/dL	0-8 Day < 40, > 120 8 Day – 1Mth < 20, > 80 1 Mth- 12 Yr < 15 > 40	< 8, > 40	< 8, > 40
Potassium mmol/L	0 Day-1 Mth < 2.4 > 6.4 1 Mth-12Yr <3.0, > 6.0	<3.0 >6.0	<3.0 >6.0
Sodium mmol/L	< 12 Yr, < 125, > 150	126, >160	<126, >160
Troponin ng/mL	N/A	Males ≥18 Yr 0.029 Females ≥18 Yr 0.029	Males ≥18 Yr 0.029 Females ≥18 Yr 0.029
MUST CALL BUT NOT CRITICAL TEST			
Fetal fibronectin (FFN)	N/A	Positive	Positive
HBsAG	N/A	Send to Kent for confirmation unless previously confirmed reactive. Call once confirmation is back	Send to Kent for confirmation unless previously confirmed reactive. Call once confirmation is back
Hepatitis C Antibody	N/A	Positive/Reactive Notify physician to add on confirmation if clinically indicated	Positive/Reactive Notify physician to add on confirmation if clinically indicated
Meconium drug screen w/confirmation	Positive	N/A	N/A
Urine Drug screen	New Positive	New Positive	N/A
Syphilis Antibody screen	Preliminary positive	Call once confirmed positive from RIDOH	Preliminary positive

Updated: CJ Sung, MD 1/23/18; 1/8/19;1/19/2021; L. Beaugard 1/25/2, L.Beaugard 3/3/21

Therapeutic Drug Critical Values

Drug	Therapeutic Range	Critical Value
Gentamicin	Peak: 5.0 – 10.0 Trough: 0.5 – 2.0	Trough >2.0
Phenytoin	Neonates: 6.0 - 14.0	> 30.0
Phenobarbital	15.0 – 40.0	> 60.0
Theophylline	10.0 – 20 .0	> 25.0
Valproic Acid	35.0 – 100 .0	>200
Vancomycin	Peak: 20.0 – 40 .0 Trough: 10-20	Trough > 20.0

Updated by L. Beauregard – 2/8/17; 1/8/19

Hematology, Coagulation & Urinalysis

Analyte	WIH Critical value	Delta Check	BUTLER
WBC (x10 ³ mcL)	Birth-1 Day <2.5, ≥32.0 Day 1-Day 7 <2.5, ≥36.0 >Day 7 <1.0; ≥50.0		<1.0; ≥50.0
Absolute Neutrophil Count (x10 ³ mcL)	<0.5Neutropenia	NA	<0.5Neutropenia
Hemoglobin g/dL	Birth - 30 Days <12.0 1 Mth - 2 Mth <9.0 > 2Mth -14 Yr < 8.0 > 14 Yr <7.0	Decrease ≥ 2 g/dL	> 14 Yr <7.0
Platelets (x10 ³ mcL)	Birth -14 Yr <100 >14 Yr <50		>14 Yr <50
PT-INR (secs.)	>5.0		>5.0
Partial Thromboplastin Time (secs.)	>100 sec		>100 sec
Blasts on peripheral smears	Any amount		Any amount
Blood parasites	Ring form seen		Ring form seen
Serum, Urine Pregnancy			Call all positives

Updated by CJ Sung, MD on 1/23/18; L. Beauregard 1/25/2, L.Beauregard 3.3.21

Transfusion Service

TEST or PROCEDURE	CRITICAL FINDINGS	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 FINDINGS	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 BUT NOT CRITICAL TEST		
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	
Rapid Flu A/B	Positive	
Candida auris isolates	Positive or suspected	
SARS-COV2*	Positive	

Updated by K.Mendonca 1/21/21

***All Covid-19 results from molecular, antigen and antibody testing are electronically sent to the Rhode Island Department of Health and FEMA in accordance with guidelines set forth by the Secretary of Health and Human Services.**

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 VALUES	NOTES
NA	NA	There are no critical values defined at this time

Genetics

TEST or PROCEDURE	CRITICAL VALUES	NOTES
NA	NA	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

Updated by CJ Sung, MD 1/8/2019

* The Chemistry and Hematology Laboratories may embed additional critical values in the “flagging systems” of their automated analyzers that are age or gender sensitive. The flags alert the testing staff to take additional steps such as verify by inquiry, delta check, and/or bring to the attention of the Medical Director or Laboratory Manager prior to verification and release.

* For details of Anatomic Pathology critical result notification, see *Anatomic Pathology Critical Results-Significant and Unexpected Findings* – AP.105.01.

* For details of Cytology Lab critical result notification, see *Significant and Unexpected Findings in Cytology* – CYT.130.1

Approved by: _____ Date: _____
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