

**UCMC / Drake Center  
Critical Lab Values  
July 2015**

Addendum A: Lab-AD 300.105: Critical Results policy

<b>CHEMISTRY CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
Ammonia [ $\mu\text{g/dL}$ ]		Greater than 125	once per 24 hr period**
Bilirubin, Total [ $\text{mg/dL}$ ]		Greater than 16 (newborn to 2 years)	once per 24 hr period**
Calcium, Total [ $\text{mg/dL}$ ]	Less than 6.5	Greater than 14.0	once per 24 hr period**
CO <sub>2</sub> [ $\text{mmol/L}$ ]	Less than 10	Greater than 40	once per 24 hr period**
Glucose, serum or plasma [ $\text{mg/dL}$ ]	Less than 40	Greater than 300 (newborn 0 - 30 days) Greater than 500 (patient older than 30 days)	each instance
Magnesium, serum or plasma [ $\text{mg/dL}$ ]	Less than 0.8	Greater than 4.9	once per 24 hr period**
Phosphorous, serum or plasma [ $\text{mg/dL}$ ]	Less than or equal to 1.0		once per 24 hr period**
Potassium, serum or plasma [ $\text{mmol/L}$ ]	Less than 3.0 (all ages)	Greater than 7.5 (newborn 0 - 6 days) Greater than 6.5 (patient older than 6 days)	once per 24 hr period**
Sodium, serum or plasma [ $\text{mmol/L}$ ]	Less than or equal to 120	Greater than or equal to 160	once per 24 hr period**
<b>BODY FLUID CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
Glucose (CSF) [ $\text{mg/dL}$ ]	Less than 40		each instance
<b>TOXICOLOGY CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
Acetaminophen [ $\mu\text{g/mL}$ ]		Greater than 100	once per 24 hr period**
Carbamazepine, total [ $\mu\text{g/mL}$ ]		Greater than or equal to 20	once per 24 hr period**
Digoxin [ $\text{ng/mL}$ ]		Greater than or equal to 2.5	once per 24 hr period**
Gentamicin, trough [ $\mu\text{g/mL}$ ]		Greater than 2.5	once per 24 hr period**
Lidocaine [ $\text{mg/L}$ ]		Greater than or equal to 6.0	once per 24 hr period**
Lithium [ $\text{mmol/L}$ ]		Greater than or equal to 1.9	once per 24 hr period**
Phenobarbital [ $\text{mg/L}$ ]		Greater than 70	once per 24 hr period**
Phenytoin [ $\mu\text{g/mL}$ ]		Greater than 30	once per 24 hr period**
Procainamide [ $\text{mg/L}$ ]		Greater than 15	once per 24 hr period**

\*\*Once per 24 hour period that the result has maintained the same end of the critical value range.

\*\*Once per inpatient admission that the result has maintained the same end of the critical value range.

**UCMC / Drake Center  
Critical Lab Values  
July 2015**

Addendum A: Lab-AD 300.105: Critical Results policy

<b>TOXICOLOGY CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
Ethylene Glycol [mg/dL]		Greater than or equal to 5.0	each order
Glycolic Acid [mg/dL]		Greater than or equal to 5.0	each order
Free Phenytoin [mg/L]		Greater than 3.5	once per 24 hr period**
Salicylates [mg/dL]		Greater than 30	once per 24 hr period**
Theophylline [µg/mL]		Greater than 30	once per 24 hr period**
Tobramycin, trough [µg/mL]		Greater than 2.5	once per 24 hr period**
Valproic Acid [µg/mL]		Greater than 150	once per 24 hr period**
Vancomycin, trough [µg/mL]		Greater than 25	once per 24 hr period**
<b>BLOOD GAS CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
pH arterial/venous	Less than 7.20	Greater than 7.60	once per 24 hr period**
pCO2 arterial [mmHG]	Less than 16	Greater than 70	once per 24 hr period**
pO2 arterial [mmHG]	Less than 40		once per 24 hr period**
TCO2 [mmol/L]	Less than 10	Greater than 40	once per 24 hr period**
Calcium, Ionized [mg/dL]	Less than 3.3	Greater than 6.2	once per 24 hr period**
Calcium, Ionized [mg/dL] from Dialysis Port	Less than 1.0	Greater than 1.8	once per 24 hr period**
Sodium, [mEq/L]	Less than or equal to 120	Greater than or equal to 160	once per 24 hr period**
Potassium, [mEq/L]	Less than 3.0 (all ages)	Greater than 7.5 (newborn 0 - 6 days): Greater than 6.5 (patient older than 6 days)	once per 24 hr period**
Glucose [mg/dL]	Less than 40	Greater than 500 (patient older than 30 days)	each instance
Carboxyhemoglobin [% of total Hgb]		Greater than or equal to 20	once per 24 hr period**
Methemoglobin [% of total Hgb]		Greater than or equal to 15	once per 24 hr period**
Hemoglobin [g/dL]	Less than 10.0 (newborn 0 - 1 month) Less than 6.0 (patient older than 1 month)	Greater than 25.0 (newborn 0 - 1 month) Greater than 20.0 (patient older than 1 month)	once per 24 hr period**

\*\*Once per 24 hour period that the result has maintained the same end of the critical value range.

\*\*Once per inpatient admission that the result has maintained the same end of the critical value range.

**UCMC / Drake Center  
Critical Lab Values  
July 2015**

Addendum A: Lab-AD 300.105: Critical Results policy

<b>HEMATOLOGY/COAGULATION CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
WBC [u/L]	Less than 2,000	Greater than 50,000	once per admission**
Absolute Neutrophil Count [Neutrophil/uL]	Less than 1,000 (newborn 0 - 1 month)		once per admission**
Hemoglobin [g/dL]	Less than 10.0 (newborn 0-1 month) Less than 6.0 (patient older than 1 month)	Greater than 25.0 (newborn 0 - 1 month) Greater than 20.0 (patient older than 1 month)	once per admission**
Platelet Count [uL]	Less than 20,000	Greater than 1,000,000	once per admission**
Malaria parasites [Blood Smear]		All positives	once per admission**
INR (Prothrombin Time, PT) [seconds]		Prottime seconds equivalent to an INR value greater than or equal to 4.5.	once per admission**
Partial Thromboplastin Time (aPTT) [seconds]		Greater than or equal to 90.0	each instance
Partial Thromboplastin Time (aPTT)- DTI Direct Thrombin Inhibitor [seconds]		Greater than 100.0	each instance
Partial Thromboplastin Time (hPTT)- Heparin [seconds]		Greater than 165.0	each instance
Anti Xa UFH [Units/mL]		Greater than 1.00	once per 24 hr period**
Anti Xa LMWH [Units/mL]		Greater than 1.75	once per 24 hr period**
Fibrinogen [mg/dl]		Less than 100	once per 24 hr period**
Factors II,V,VII,VIII,IX,X,XI,XII		Less than 30%	once per 24 hr period**
<b>SEROLOGY CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
HIV Screen: Occupational Exposure Screen		Presumptive Positive	each instance
HIV Screen: Perinatal Screen		Reactive	each instance
HIV Screen: Multispot Confirmation		All results	each instance (Inpatient: within 30mins) (Outpatient/Outreach: business hours)
<b>MISCELLANEOUS CRITICAL VALUE LIMITS</b>			
<b>Analyte</b>	<b>Low</b>	<b>High</b>	<b>Frequency of Critical Value Call</b>
Rupture of Fetal Membranes (Amnisure)		Positive	each instance

\*\*Once per 24 hour period that the result has maintained the same end of the critical value range.

\*\*Once per inpatient admission that the result has maintained the same end of the critical value range.

**UCMC / Drake Center  
Critical Lab Values  
July 2015**

Addendum A: Lab-AD 300.105: Critical Results policy

<b>MICROBIOLOGY CRITICAL VALUE LIMITS</b>
<b>Positive Finding</b>
AFB, any methodology, first positive from source
<i>Aspergillus fumigatus</i> or <i>A. flavus</i> from respiratory cultures or sterile body sites
Bioterrorism agents (refer to Lab Procedure)
Body fluid culture (CSF, pleural fluid, synovial fluid, etc.)
Body Fluid (sterile): Gram stain or Fungal stain
Blood culture (first two sets/day of collection; additional sets if different organisms)
Blood culture (first set: PNA-fish or Nanosphere): current inpatient
Blood parasite
Cryptococcal antigen – first positive per admission
CSF: Any positive result
Eye Specimen: corneal, scraping, or aspirate: any organism on gram stain or culture
<i>Group A Strep</i> : wounds
<i>Group A Strep</i> : throat cultures or <i>Strep A</i> reflex from Outpatients only: faxed to physician office
<i>Group B Strep</i> isolated from newborns
<i>Histoplasma</i> , <i>Blastomyces</i> , <i>Coccidioides</i> , or <i>Nocardia</i> from any site
Influenza: Influenza A (including H1N1) and/or B PCR: Inpatients/ED (called within 30 mins of acknowledgement) Outpatient/Outreach: non critical/ notified via fax
Legionella culture
Legionella urine antigen
<i>Listeria</i> from any body site
MDRO, including ESBL, KPC and multi-resistant <i>Pseudomonas</i> or <i>Acinetobacter</i> / INPATIENT only
MRSA screen (current in-patient)
RSV specimen (Rapid antigen assay)
Shiga toxin EIA
Stool culture pathogens (current inpatient; earliest AM for outpatients), including <i>Cryptosporidium</i> and <i>Giardia</i>
Tissue Culture / Gram Stain / Fungal Stain: triage per Microbiology Lab guidelines (always call brain, heart, joint and bone)
Vancomycin intermediate or resistant <i>Staph. aureus</i>
Vancomycin-resistant Enterococcus culture or screen (current in-patient)
<i>Varicella zoster culture</i> (current inpatient)
Water, Dialysis Culture $\geq 50$ cfu/ml

\*\*Once per 24 hour period that the result has maintained the same end of the critical value range.

\*\*Once per inpatient admission that the result has maintained the same end of the critical value range.