



Clinical Laboratories

Colorado, USA

117809.77 Critical Values

Copy of version 1.0 (approved and current)

Last Approval or Periodic Review Completed 4/11/2019

Controlled Copy ID 182652

Next Periodic Review Needed On or Before 4/11/2021

Location Test Catalog upload

Effective Date 4/11/2019

Organization Highlands Ranch


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Comments for version 1.0

Initial version

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	4/11/2019	1.0	 Edward Ashwood	
Approval	Lab Manager	1/2/2019	1.0	Sarah Miller	

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.0	Approved and Current	Initial version	12/2/2018	4/11/2019	Indefinite

117809.77.Critical Values, Version 1.0.

Hematology

HGB	Hemoglobin (0-1month)	<7 g/dL >23 g/dL
HGB	Hemoglobin (1M-150Y)	<7 g/dL >20 g/dL
HCT	Hematocrit (0-1month)	<21% >70%
HCT	Hematocrit (1M-150Y)	<21% >60%
PLT	Platelet count	<25 x10 ⁹ /L >1000 x10 ⁹ /L
WBC	White Blood Cell count	<1.50 x10 ⁹ /L >70 x10 ⁹ /L
ANC	Absolute Neutrophil Count	<1.0 x10 ⁹ /L

Hematology Oncology Patients Only

Results for WBC and ANC are called when the following criteria is met:		
<ol style="list-style-type: none"> 1. It is the first time the critical value is detected on the patient. 2. The patient has not had a similar critical value within the previous 24 hours. 3. The test was not ordered in the previous 24 hours. 4. Previous results within 24 hours was not a critical value. (Patient result changed from critical to non-critical, then back to critical). 		
WBC	White Blood Cell count	<1.50 x10 ⁹ /L >70 x10 ⁹ /L
ANC	Absolute Neutrophil Count	<1.0 x10 ⁹ /L

Coagulation

INR	Prothrombin Time (Prottime) INR	≥5.0
PTT	Activated Partial Thromboplastin Time	≥160 seconds
D DIMER	Fibrin Degradation Units	≥500 ng FEU/mL (OP only excludes ED)
FIB	Fibrinogen	<100 mg/dL

Blood Gas/Whole Blood Testing

pH	pH units, arterial blood gas	≤7.200 ≥7.600
HCO ₃	Bicarbonate, arterial blood gas	≤12 mmol/L ≥40 mmol/L
TCO ₂	Total carbon dioxide, arterial blood gas	≤12 mmol/L ≥40 mmol/L
pCO ₂	Partial carbon dioxide, arterial, capillary, and venous blood gas	≤20 mmHg ≥70 mmHg
pO ₂	Partial pressure of oxygen, arterial blood gas	≤39 mmHg
K WB	Whole blood potassium	≤2.5 mmol/L ≥6.4 mmol/L
NA WB	Whole blood sodium	≤120 mmol/L ≥160 mmol/L
GLU WB	Whole blood glucose	≤40 mg/dL ≥500 mg/dL
MET HGB	Methemoglobin	≥3.0%
CO HGB	Carboxyhemoglobin	≥ 12%
ICA WB	Calcium, ionized	≤0.75 mmol/L ≥1.66 mmol/L

Blood Bank

Antibody, red blood cell, unexpected and clinically significant, STAT and surgical blood transfusions.	Positive
Transfusion reaction investigation, hemolytic	Positive

Chemistry

ACETA BLD	Acetaminophen	≥40.0 µg/mL
ASA	Salicylate (Aspirin)	≥40.0 mg/dL
BILI	Total Bilirubin (0-1 year)	≥17.0 mg/dL
CA	Calcium	<6.0 mg/dL ≥13.0 mg/dL
CO2	Carbon Dioxide	≤9 mmol/L ≥40 mmol/L
ETOH	Blood ethanol/alcohol	≥400 mg/mL
GLU	Glucose	≤40 mg/dL ≥500 mg/dL
K	Potassium	≤2.5 mmol/L ≥6.4 mmol/L
LI	Lithium	≥1.5 mmol/L
MG	Magnesium	≤1.2 mg/dL ≥6.0 mg/dL
NA	Sodium	≤120 mmol/L ≥160 mmol/L
PHOS	Phosphorus	≤1.0 mg/dL

Therapeutic Drugs		
DIGOXIN	Digoxin	≥3.0 ng/mL
GENT R	Gentamicin (Random)	≥12.0 µg/mL
GENT P	Gentamicin (Peak)	≥12.0 µg/mL
GENT T	Gentamicin (Trough)	≥2.00 µg/mL
PHENY TOT	Phenytoin, Total (Dilantin)	≥30 µg/mL
VANC R	Vancomycin (Random)	≥80.0 µg/mL
VANC P	Vancomycin (Peak)	≥80.0 µg/mL
VANC T	Vancomycin (Trough)	≥35.0 µg/mL

Point of Care Testing

GLUC	Glucose	≤40 mg/dL ≥500 mg/dL
tHB	Total Hemoglobin	<7 g/dL >20 g/dL
INR	Protime International Normalizing Ratio	≥6.0
NA	Sodium	≤120 mmol/L ≥ 160 mmol/L
K	Potassium	≤2.5 mmol/L ≥6.4 mmol/L
ICA WB	Ionized Calcium	≤0.75 mmol/L ≥1.66 mmol/L
pO ₂	Partial oxygen, arterial blood gas	≤39 mmHg
pCO ₂	Partial carbon dioxide, arterial blood gas	≤20 mmHg ≥70 mmHg
pH	pH	≤7.200 ≥7.600

Microbiology

C BLD	Blood Culture	Positive
GS	Gram stain for bacteria/fungus	Positive for:
	Positive blood cultures and normally sterile sites only.	body fluids (ascites, CSF, paracentesis, peritoneal);
		blood products associated with transfusion reaction;
		Specimens submitted from surgery.