

**Critical Results Definitions - Lab - SCL Health - Supporting Document**

TEST	LOW	HIGH	NOTES	Colorado					Montana		
				GSMC	LMC *Oncology Patient in Infusion Center or Inpatient Cancer Center	PVMC	SJH *Known Oncology Patients ONLY	SMMC	HRH	SJB	SVH
<b>BLOOD GASES</b>											
pH	< 7.20	> 7.60	Arterial								
	≤ 7.0	N/A	Cord Blood								
pCO2	< 20 mmHg	> 70 mmHg	Arterial								
pCO2	< 30 mmHg	> 70 mmHg	Capillary								
pO2	< 40 mmHg	N/A	Arterial								
Base Excess	≤ -16 mmol/L		Cord Blood								
<b>THERAPEUTIC DRUG MONITORING (TDM)</b>											
Acetaminophen	N/A	> 40.0 µg/mL		Call 1 <sup>st</sup> result per admission							
Carbamazepine	N/A	> 15.0 µg/mL									
Digoxin	N/A	≥ 2.5 ng/mL									
Gentamicin (Trough)	N/A	> 2.0 µg/mL	Drawn 30 minutes pre infusion								
Lithium	N/A	> 1.5 mmol/L	Trough								
Phenobarbital	N/A	> 50.0 µg/mL									
Phenytoin	N/A	> 30.0 µg/mL									
Salicylates	N/A	> 30.0 mg/dL		Call 1 <sup>st</sup> result per admission							
Theophylline	N/A	> 25.0 µg/mL									
Tobramycin (Trough)	N/A	> 2.0 µg/mL	Drawn 30 minutes pre-infusion								
Valproic Acid	N/A	> 150.0 µg/mL									
Vancomycin (Trough)	N/A	> 20.0 µg/mL									
<b>CHEMISTRY</b>											
Bilirubin (neonatal)	0 days old	≥ 10 mg/dL									
	1 day old	≥ 13.5 mg/dL									
	2 days old	≥ 16.0 mg/dL									
	3-4 days old	≥ 17.5 mg/dL									
	5 days to 1 month	≥ 18.0 mg/dL									
Calcium (Total)	< 6.0 mg/dL	> 13.0 mg/dL									Call 1 <sup>st</sup> result
Ionized Calcium	< 0.80 mmol/L	> 1.60 mmol/L	Arterial, Venous, Capillary								

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CO2 (Carbon Dioxide)	< 10 mmol/L	> 40 mmol/L	Arterial, Venous, Capillary									Call 1 <sup>st</sup> result
Glucose (non-neonatal)	< 50 mg/dL	> 500 mg/dL	Arterial, Venous									
Glucose (neonatal)	< 50 mg/dL	> 300 mg/dL	Arterial, Venous									
Lactate	N/A	≥ 4.0 mmol/L	Arterial, Venous, Capillary	Call 1 <sup>st</sup> result per admission								Call 1 <sup>st</sup> result
Magnesium (Mg)	< 1.0 mg/dL	> 5.0 mg/dL										Call 1 <sup>st</sup> result
Phosphorus (P)	< 1.0 mg/dL	> 8.0 mg/dL										Call 1 <sup>st</sup> result
Potassium (K)	< 2.5 mmol/L	> 6.0 mmol/L	Arterial, Venous									
Sodium (Na)	< 120 mmol/L	> 160 mmol/L	Arterial, Venous									Call 1 <sup>st</sup> result
Troponin 5 <sup>th</sup> Gen.	N/A	<b>The following components are considered critical if respective criteria is met:</b> <ul style="list-style-type: none"> <li>• Any value ≥ 120 ng/L</li> <li>• Absolute Delta: ≥ 20 ng/L</li> <li>• Percent Delta: Delta rise ≥ 50% if baseline normal Delta rise ≥ 20% if baseline abnormal</li> </ul>		Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours	Call on first occurrence, regardless of component, once per 24 hours
<b>HEMATOLOGY</b>												
Hemoglobin	< 7.0 g/dL	N/A										
Hematocrit	< 21.0%	N/A										
Platelets (PLT)	< 20 x 10 <sup>3</sup> /μL	> 1000 x 10 <sup>3</sup> /μL			*Do NOT call platelet count < 10,000 with standing platelet transfusion parameters		*1 <sup>st</sup> Critical Result is called and documented					
White Blood Cell (WBC) Count	< 2.00 x 10 <sup>3</sup> /μL	> 50.00 x 10 <sup>3</sup> /μL			*Do NOT call > 200,000 for Chronic Leukemics and 100,000 for		*1 <sup>st</sup> Critical Result is called and documented					

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					Acute Leukemics *For all other diagnoses call MD if > 50,000. *Do NOT call any low white blood cell count.							
Absolute Neutrophil Count (ANC)	< 0.5 x 10 <sup>3</sup> /μL	N/A		Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	<Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.
Differential	Presence of Blasts or Blood Parasites			Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.	Call on 1 <sup>st</sup> occurrence.
Malaria Antigen Test	Positive Test											
<b>COAGULATION</b>												
INR	N/A	> 5.00										
aPTT	N/A	> 140.0 sec										
Fibrinogen	< 100 mg/dL	N/A										
<b>MICROBIOLOGY</b>												
Blood Culture	Positive culture or smear		AFB, bacterial, fungal									
CSF Culture	Positive culture, smear or molecular test		AFB, bacterial, fungal									
Sterile Body Fluid Culture	Positive culture or smear		AFB, bacterial, fungal									
Any agent of bioterrorism												
<b>TRANSFUSION MEDICINE</b>												
Transfusion reactions	Hemolytic transfusion reaction or septic transfusion reaction											
<b>MISCELLANEOUS</b>												
Any Incidental Critical Parameter				Call 1 <sup>st</sup> result per admission								
Comments:				<b>SJH (Known Oncology Patients ONLY)</b> • Subsequent Critical Values for ANC, Blasts, Platelets, and WBC are appended with the coded comments NCR, No Call Required.								