



GLS.241 - Central Zone DTH HCIS – Critical Values for VITROS Sites

Applicability: This document lists critical values for the APL lab sites with Ortho VITROS Chemistry analyzers in the APL South Sector- Areas 1 and 2 – DTH HCIS Meditech Ring.

Department	Analyte	Units	Qualifiers if applicable	Low Critical Value	High Critical Value	
Chemistry	Acetaminophen	umol/L			> 250	
	Bilirubin - Direct	umol/L	≤ 31 d		> 18	
	Bilirubin - Total	umol/L	< 30 d		> 300	
	Calcium	mmol/L		< 1.65	> 3.25	
	Calcium - Ionized	mmol/L		< 0.80	> 1.50	
	Carbamazepine	umol/L			> 60	
	Digoxin	nmol/L			> 2.6	
	Ethanol / Alcohol	mmol/L			> 65	
	Gentamicin	mg/L		Trough		> 1.9
				Peak		> 12.0
	Glucose	mmol/L		< 30 d	< 2.0	> 24.9
				30 d - 150 y	< 2.6	> 24.9
	Iron	umol/L		< 12 y		> 54
	Lactate	mmol/L				> 4.0
	Lithium	mmol/L				> 2.0
	Magnesium	mmol/L			< 0.40	> 1.90
	Phenobarbital	umol/L				> 170
	Phenytoin	umol/L		≤ 3 months		> 80
				>3 months		> 120
	Phosphate	mmol/L			< 0.40	
	Potassium	mmol/L		0 - 28 d	< 3.0	> 6.4
				29 d - 364 d	< 3.0	> 6.0
				1 yr - 17 y	< 3.0	> 6.0
				≥ 18 y	< 2.6	> 6.2
	Salicylates	mmol/L				> 2.20
	Sodium	mmol/L			< 120	> 155
	Theophylline	umol/L				> 110
Tobramycin	mg/L		Trough		> 1.9	
			Peak		> 12.0	
Valproate	umol/L				> 1040	
Vancomycin	mg/L		Trough		> 20.0	
			Peak		> 40.0	
Blood Gases	pH		Arterial	< 7.20	> 7.60	
			Venous	< 7.20	> 7.60	
			Capillary	< 7.20	> 7.60	
			Cord Arterial	< 7.10	> 7.60	
			Cord Venous	< 7.15	> 7.60	

Department	Analyte	Units	Qualifiers if applicable	Low Critical Value	High Critical Value
and CO-Oximetry	pCO2	mm Hg	Arterial	< 20	> 70
			Venous	< 20	> 70
			Capillary	< 20	> 70
			Cord Arterial	< 20	> 70
			Cord Venous	< 20	> 55
	pO2	mm Hg	Arterial	< 40	
			Venous	< 20	
			Capillary	< 30	
			Cord Arterial	< 5	
			Cord Venous	< 15	
	HCO3	mmol/L	Arterial	< 10	> 40
			Venous	< 10	> 40
			Capillary	< 10	> 40
			Cord Arterial	< 10	> 40
			Cord Venous	< 10	> 40
	+CO2	mmol/L	Venous	< 10	> 40
Carboxyhemoglobin	%			> 15	
Methemoglobin	%			> 10	
Hematology	Absolute Neutrophil	x 10 ⁹ /L		< 0.6	
	Hemoglobin	g/L	0 - 7 d	< 100	> 240
			> 7 d	< 60	> 240
	Malaria			Positive	
	Platelets	x 10 ⁹ /L		< 30	
WBC	x 10 ⁹ /L	0 - 7 d	< 0.6	> 99.9	
		> 7 d	< 0.6	> 99.9	
Coagulation	Fibrinogen	g/L		< 1.01	
	PT	INR			> 5.0
Transfusion Medicine	Direct Antiglobulin Test		0 - 1 mo	Positive results with clinically significant antibodies	
	Transfusion Reaction			Any indication of hemolytic transfusion reaction	
Microbiology	Blood Culture		Gram or Culture	Positive for micro-organisms	
	Eye Culture			Pseudomonas aeruginosa or Neisseria gonorrhoeae	
	Spinal Fluid Culture		Gram or Culture	Positive for micro-organisms	
	Sterile Site			Neisseria gonorrhoeae	
	Non GI Source			Clostridium perfringens	
Anatomic Pathology	Vasculitis				
	Pathologic organisms in an immunocompromised patient				
	Fat in an endometrial curettage				
	Uterine contents without villi or trophoblasts in a patient suspected to be pregnant				
	Malignancy in superior vena cava syndrome				
	Neoplasms potentially causing paralysis				
	Necrotizing fasciitis				
Acute leukemia					