

Clinical Laboratory Critical Result Notification

I. CRITICAL VALUES/RESULTS TABLE

LAB SECTION	TEST	CRITICAL VALUE/RESULT	CALL FREQUENCY/ OTHER NOTES
Blood gases, co-oximetry	pH	<7.25 or >7.55	INPATIENTS ONLY: Initial; Then Call ANY/ALL <7.15 or >7.55
	PO ₂	<45 mm/hg (arterial) <20 mm/hg (capillary)	
	PCO ₂	>70 mm/hg (arterial, venous, and cap)	INPATIENTS ONLY: Initial Only
	Calcium, ionized	<0.81 or >1.55 mmol/L	
	Carboxyhgb	>20%	
	Met-hemoglobin	>10%	
Chemistry	Bicarbonate (CO ₂ total)	<12 or >45 mEq/L	INPATIENTS ONLY: Initial Only
	Bilirubin, total	>15 mg/dL	
	Calcium, total	<6.0 or >13.0 mg/dL	
	Creatinine	>8.00 mg/dL	Use >20.00 mg/dL for RD patients
	Creatine Kinase (CK), Total	>10,000 U/L	
	CSF glucose	<40 or >450 mg/dL	
	CSF protein	>60 mg/dL	
	Glucose	<45 or >450 mg/dL	
	Lactate (lactic acid)	>4.0 mEq/L	
	Magnesium	<1.0 or >5.0 mg/dL	
	Osmolality	<240 or >330	
	Phosphorus	<1.2 or >8.9 mg/dL	Use <2.0 and >12.0 for RD patients
	Potassium	<2.8 or >6.1 mEq/L	CALL REGARDLESS OF PREVIOUS Use >6.9 mEq/L for hemodialysis "Renal Dialysis" patients, pre-dialysis samples only. Use regular critical ranges for all other patients, including peritoneal dialysis "Home Dialysis" patients.
	Sodium	<120 or >160 mEq/L	INPATIENTS ONLY: Initial; Then Call ANY/ALL <110 or >170
Troponin T (HS)	>22 ng/L for male >14 ng/L for female	ALL PATIENTS (inpatient and outpatient): Call first positive result within previous 96 hours, excluding known post cardiac surgery patients.	
Coagulation	Anti-Xa HEP (Standard, UF heparin)	>0.80 units/mL	CALL REGARDLESS OF PREVIOUS

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	Anti-Xa LMWH (Lovenox/Enoxaparin)	>2.19 units/mL	CALL REGARDLESS OF PREVIOUS
	Anti-Xa RIV (Rivaroxaban/Xarelto)	>450 ng/mL	CALL REGARDLESS OF PREVIOUS
	Arixtra (Fondaparinux/Arixtra)	>1.50 mg/L	CALL REGARDLESS OF PREVIOUS
	INR	>5.0	
Coagulation cont.	PTT	>50 sec (no history of heparin) >90 sec (heparin therapy)	CALL ALL WHEN >90 sec
	Factor VII	≤ 6%	CALL IF UNEXPECTED
	Factor VIII	≤ 5%	
	Factor IX	≤ 5%	
	PF4	Positive result	CALL REGARDLESS OF PREVIOUS
Hematology	WBC ANC Differential	WBC <2.0 or >30.0 Th/uL (non-oncology outpatients only)	Initial Only
		ANC <0.50 Th/uL	EXCLUDES ONLY EMMC Inpatients
		Pathology smear review findings dictate immediate intervention – pathologist calls provider	Initial; repeat call when follows non-critical result
			DCPA Pathologist makes determination
	Hemoglobin	<6.5 g/dL or >20.0 g/dL	>20.0 (patient age >6 months)
	Hematocrit	<19.5 % or >60.0 %	>60.0 (patient age >6 months)
	Platelet	<50 Th/uL or >850 Th/uL	Initial; Then Call ANY/ALL <10 Th/uL
Microbiology	Blood cultures	Positive bacterial, fungal, mycobacterial or viral	
	Direct CSF smears/cultures	Positive result	
	Blood parasites	Positive for Plasmodium or other blood parasites	
	Direct smear/culture from normally sterile tissue or fluid	Positive result	
	Cryptococcal antigen	Positive result	
	Bordetella pertussis PCR	Positive result	
	HSV, VZV or enterovirus PCR (CSF or other sterile sites)	Positive result	
	AFB smear	Positive result	
	Shiga-toxins	Positive result	

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	Legionella urinary antigen or culture	Positive result	
Toxicology	Acetaminophen	>120 ug/mL (4 hrs. post ingestion)	
	Acetone	>40 mg/dL	
	Ethanol	>300 mg/dL	
	Methanol and isopropanol	Any level	CALL REGARDLESS OF PREVIOUS
	Butalbital	>10 ug/mL	
	Caffeine	>25 ug/dL	
	Carbamazepine	>15 ug/mL	
	Clozapine	>1300 ng/mL	
	Cyclosporine	>700 ng/mL	
	Digoxin	>2.5 ng/mL	
	Gentamicin	Peak >12.0 ug/mL	CALL REGARDLESS OF PREVIOUS
		Trough >3.0 ug/mL	
	Lamotrigine	>20.0 ug/mL	
	Lithium	>1.5 mEq/L (<60 yrs of age)	
		>1.3 mEq/L (>60 yrs of age)	
	Meprobamate	>40 ug/mL	
	Pentobarbital	>7.0 ug/mL	
	Phenobarbital	>60.0 ug/mL	
	Phenytoin	Total >30.0 ug/mL	
		Free > 3.5 ug/mL	
	Salicylate	>30.0 mg/dL	
	Tacrolimus	>26.0 ng/mL	
	Theophylline	>20.0 ug/mL	
Toxicology cont.	Tobramycin	Trough >2.5 ug/mL	CALL REGARDLESS OF PREVIOUS
	Valproic acid	>150.0 ug/mL	
	Vancomycin	Peak >80.0 ug/mL	CALL REGARDLESS OF PREVIOUS
Trough >25.0 ug/mL			
Urinalysis	Microscopic	Positive Clinitest with dipstick glucose negative (child <1 yr.)	
		Sperm present (female <14 yrs.)	