

Aspen Valley Hospital Laboratory

Critical Values (Automatic Call-Back)

Chemistry

	<i>Low</i>	<i>High</i>
Blood Gas, Arterial pCO ₂ pO ₂ pH, Venous, Blood	<20 mm/Hg <45.0 mm/Hg <7.25	>50 mm/Hg >300.0 mm/Hg >7.55
Bilirubin, Total, Plasma or Serum		>19.0 mg/dL
Calcium, Plasma or Serum	<6.6 mg/dL	>13.0 mg/dL
Carbamazepine (Tegretol®), Plasma or Serum		>15.0 ug/mL
Carbon Monoxide, Blood		>11.9% of tHgb
Digoxin, Serum		>2.0 ng/mL
Gentamicin, Peak, Plasma or Serum		>12.0 ug/mL
Glucose, Plasma or Serum 0 days-2.5 months ≥ 2.5 months	<35 mg/mL <50 mg/mL	>120 mg/dL >500 mg/dL
Lithium, Serum		>2.0 mEq/L
Magnesium, Plasma or Serum		>8.0 mg/dL <i>(for obstetric patients receiving magnesium sulfate)</i>
Dilantin® (Phenytoin), Plasma or Serum		>30.0 ug/mL
Potassium, Plasma or Serum	<2.8 mEq/L	>5.9 mEq/L
Sodium, Plasma or Serum	<125 mmol/L	>150 mmol/L
Troponin-I, Plasma or Serum		>0.099 ng/mL
Point of Care Nursing:		
Glucose, Accu-chek, Adult and Pediatric	<40 mg/dL	>400 mg/dL
Glucose, Accu-chek, Neonatal	<40 mg/dL	>120 mg/dL

Hematology

Hematocrit, Blood 0 days-1 month >1 month	<25% <25%	>70% >60%
Hemoglobin, Blood 0 days-1 month >1 month-2 years ≥ 2 years	<7.5 mg/dL <7.5 mg/dL <7.5 mg/dL	>27.0 mg/dL >25.0 mg/dL >20.0 mg/dL
White Cell Count, Blood 0 days-1 month >1 month-2 years ≥ 2 years	<2.1 10 ³ u/L <2.1 10 ³ u/L <2.1 10 ³ u/L	>40.0 10 ³ u/L >30.0 10 ³ u/L >24.9 10 ³ u/L
Malarial Smear		Positive for malarial parasites
When unexpected differential findings suggesting leukemia or critical values are noted, the smear is promptly referred to the pathologist, while simultaneously notifying the physician that the smear is being reviewed.		
Any patient	All cerebrospinal fluid (CSF) results except those done in association with a myelogram procedure.	

Coagulation

	Low	High
Platelet Count, Blood	<60,000 mm ³	>1,000,000 mm ³
(Protime) INR (<i>International Normalized Ratio</i>)		>5.0
aPTT (<i>Activated Partial Thromboplastin Time</i>)		>90 seconds (<i>unless patient is known to be on heparin</i>)

Microbiology

Growth in any of the following cultures or situations must be handled STAT with immediate notification of physician. When any of the following results are obtained, technologist will attempt to contact physician immediately. If there is no response after 15 minutes, contact emergency room for physician office practice call schedule and contact physician on-call for that practice; if there is no response within 15 minutes, the laboratory will have a copy of the Hospital Care Plan and laboratory will contact responsible physician. For inpatients only, emergency room physicians are available for consultation if attending physician is unavailable. In addition, technologist will call patient's nursing unit advising them to note this on front of patient's chart. If an MIC is to be set up and reported the next day, physician must also be notified of this as well. Document time faxed and who report was faxed to on patient's worksheet. Document all times, conversations, and other information of notification in Meditech, under Result Comment. **Response time=30 minutes.**

Acid-Fast Bacilli	Any specimen (testing performed by Mayo Medical Labs)
Blood Culture	Any specimen showing growth
Cerebrospinal Fluid Culture	Any specimen showing growth
Cerebrospinal Stain	Any organism seen
Eye Culture	Any suggestion of <i>Pseudomonas aeruginosa</i>
Gram Stain	Any suggestion of <i>Pseudomonas aeruginosa</i>
Blood or Gangrenous Wound	Anaerobic, gram positive rod exhibiting double hemolysis on blood agar, (presumptive <i>Clostridium perfringens</i>)
Wound	Any group A streptococcus (presumptive severe strep disease)

Blood Bank

Occurrence of the following requires notification of pathologist on call, who, in turn, will discuss the case with physician as required. Pathologist will assist in resolution of any compatibility problems.

Any Patient	Incompatible crossmatch
Any Patient	Positive antibody screen when type & screen is ordered
Any Patient	Patient receives multiple units (<i>more than 5 units in a short period of time</i>).
Any Patient	Blood transfused un-crossmatched
Any Patient	Evidence of hemolytic transfusion reaction
Any Patient	Substitution of ABO type specific units of blood involved in massive transfusion.* Forward and back type do not agree (these must be resolved before transfusion). Type O cells can be given in an emergency. * Note: Switching of ABO groups within prescribed guidelines, for inventory control consideration, does not require pathologist notification.