

## *Critical Test Values*

Critical values are defined at Essentia as any test result that may require rapid clinical attention to avert significant patient morbidity or mortality. Prompt verbal notification is provided to clinicians, patient care floors, or designees in cases of new and/or unexpected critical values as designated in this policy and other policies.

### GENERAL LAB RESULTS

<b>HEMATOLOGY:</b>	<b>&lt; OR EQUAL TO:</b>	<b>&gt; OR EQUAL TO:</b>	<b>UNITS</b>
WBC	1.0	50.0	10 <sup>9</sup> /L
HGB	7.0	--	gm/dl
HCT	20.0	--	%
PLT	20.0	--	x10 <sup>9</sup> /L
Prottime - INR	--	5.0	
<b>CHEMISTRY:</b>	<b>&lt; OR EQUAL TO:</b>	<b>&gt; OR EQUAL TO:</b>	<b>UNITS</b>
Total BILIRUBIN *call not required for hospital patient over age 1 year.	--	18.0	mg/dl
CALCIUM 1 <sup>st</sup> time/weekly. Call if decrease/increase >=1.0	6.5	12.5	mg/dl
GlucoseJ	50	500	mg/dl
Glucose NICU & Newborn	40	400	mg/dl
Sodium	120	160	mEq/L
Potassium	2.7	6.5	mEq/L
Ionized Calcium	3.4	6.3	mg/dl
Ionized Calcium NICU	2.9	6.3	mg/dl
pH	7.20	7.60	
pCO <sub>2</sub>	--	70	mm Hg
pO <sub>2</sub>	40	--	mm Hg
Ammonia	--	100	Umol/L
Magnesium	1.0	4.0	mEq/L
Lead	--	45	mcg/dL
<b>DRUGS:</b>	<b>&lt; OR EQUAL TO:</b>	<b>&gt; OR EQUAL TO:</b>	<b>UNITS</b>
Tobramycin	--	12	ug/ml
Carbamazapine	--	15	ug/ml
Phenobarbital	--	60	ug/ml
Phenytoin (Dilantin)	--	40	ug/ml
Lithium	--	2.0	mEq/l
Theophylline	--	25	ug/ml
Digoxin	--	2.5	ng/ml
Salicylate	--	30	mg/dl
Gentamicin	--	10	ug/ml
Valproic Acid	--	200	ug/ml
Vancomycin	--	50.0	ug/ml

### Microbiology/Molecular POSITIVE results:

- Blood Cultures – gram stain, initial ID, any additional ID, and molecular testing
- Sterile Body Sites – gram stain, initial ID, any additional ID, and/or antigen and molecular testing
  - Spinal Fluid or shunt fluid
  - Body fluid (i.e. joint fluids, pleural fluids, etc.)
  - Surgical specimens/Invasive procedures, i.e. heart valve, tissue specimens
- Histoplasmosis, Blastomycosis, or Coccidiomycosis on smears or wet preps
- Acid Fast Bacilli smears & M. tuberculosis cultures
- Fungal cultures from sterile sites

  
**Positive blood parasites:**

- Malaria
- Babesia

**Transfusion Services:**

Any blood bank finding that will cause a delay in the patient receiving a blood product is considered a critical value. This also includes situations where a special product needs to be requested from the blood supplier. When calling the physician or nurse, indicate the approximate time you expect to receive the product. Physicians are notified by a Pathologist if delay in blood availability will exceed two hours and the patient requires a product before that time. The provider and pathologist are to be notified in the case of an acute hemolytic transfusion reaction and positive tests for fetal-maternal hemorrhage, requiring injection of an additional dose of Rh Immune Globulin.

**Critical Access Hospitals:**

Elevated Troponin levels will be called at Critical Access Hospitals with limited physician coverage. Lab staff needs to document call in LIS or follow their manual process.

**Reference Lab Results:**

Critical results from Reference Labs must be called to the appropriate location or person using the same procedure described in this policy. Click on the "Call" button in SOFT to open up the critical call documentation screen. If you fax the results, note this in Call Comment. For sites not using SoftLab, the laboratory person making the phone call will document in their LIS or on the paper result the name of test called and initials of person taking the result.