



<b>General Laboratory Operations</b>	Policy number	GEN.0506
	Effective date	3/31/2022
<b>Alert Level Documentation</b>	Supersedes	600.0007SP.00
	Dated	5/1/2013

**Purpose:** To outline general procedures to be followed by laboratory staff in the documentation of critical values (alert levels)

**Scope:** This policy applies to all laboratory staff who report alert/critical values.

**Responsibility:** It is the responsibility of all laboratory supervisors, managers, directors, and pathologists to enforce this policy.

**Practice:**

1. The Epic Beaker system is programmed to alert testing personnel to alert level values prior to the release of the result. Documentation of notification of an appropriate caregiver is required by CAP and Joint Commission standards.
2. Alert levels are determined based on the “Table of Critical Limits” published in *Medical Laboratory Observer* based on the original work conducted by George Lundberg M.D. See Addendum A, the electronic catalog, or department level policy and procedure for specific alert level values.
3. Any change in established alert level ranges must be reviewed and approved by the medical director of the specific laboratory section.
4. Alert levels on inpatients must be documented with the following information:
  - The first and last name of the licensed caregiver
  - The date and time of the call
  - The name of the laboratory staff placing the call
  - The read back of the alert level result by the licensed caregiver. Both first and last name of the caregiver are required for documentation purposes.
5. Alert levels on outpatient or client specimens:
  - Print an internal copy of the patient report and highlight the alert level
  - Place the copy in the Customer Service bin. If it is after 17:00, give the report to Central Processing staff.
  - Customer Service or Central Processing staff will document the information on the report once the caregiver has been notified. Both first and last name of the caregiver is required for documentation purposes.
  - Laboratory staff will enter the information in Beaker
6. It is the responsibility of each section supervisor or their designee to review alert level documentation daily to verify all documentation.



## Addendum A

### UW HEALTH NORTHERN ILLINOIS LABORATORIES ALERT LEVELS

Alert levels are those values that fall outside the low or high critical limits for a given test. Test results that are designated alert levels require documented notification of physician or licensed caregiver. The following levels are programmed into the Epic Beaker system to alert the technologist and are specific to tests performed at the main laboratory.

#### Chemistry

Test name	Lower Limit	Upper Limit
Acetaminophen	n/a	>150 mcg/mL
BNP	n/a	>1300 pg/ml
BUN	n/a	>104 mg/dL
Calcium	<6.6 mg/dL	>12.9 mg/dL
CKMB (outpatient)	n/a	>6.3 ng/mL
Carbon monoxide	n/a	>20%
Creatinine	n/a	> 7.4 mg/dL
Digoxin	n/a	>2.5 ng/mL
Gentamicin (trough)	n/a	>2.0 mcg/mL (adult) >1.0 mcg/mL (newborn)
Gentamicin (peak)	n/a	>12.0 mcg/mL
Glucose	<56 mg/dL	>484 mg/dL
Glucose (newborn)	<40 mg/dL	>300 mg/dL
Lactic acid (arterial or venous)	n/a	>3.4 mmol/L
Lithium	n/a	>2.0 mmol/L
Magnesium	<1.0 mg/dL	>4.9 mg/dL
Neonatal bilirubin	n/a	>15.0 mg/dL
pCO <sub>2</sub> (arterial)	<19 mmHg	>67 mmHg
pH (arterial)	<7.21	>7.59
Phenobarbital	n/a	>60 mcg/mL
Phenytoin	n/a	>40 mcg/mL
Phosphorus	<1.2 mg/dL	>8.9 mg/dL
pO <sub>2</sub> (arterial)	<43 mm/Hg	n/a
Potassium	<2.8 mmol/L	>6.0 mmol/L
Salicylate	n/a	>30 mg/dL
Sodium	<120 mmol/L	>158 mmol/L
Tegretol	n/a	>20.0 mcg/mL
Theophylline	n/a	>25 mcg/mL
Troponin-I	n/a	>0.50 ng/mL
Tobramycin (trough)	n/a	>2 mcg/mL
Tobramycin (peak)	n/a	>12 mcg/mL
Uric acid	n/a	>13.0 mg/dL
Valproic acid	n/a	>200 mcg/mL
Vancomycin (trough)	<10.0 mcg/mL	>20.0 mcg/mL
Vancomycin (peak)	n/a	>90 mcg/mL
Vancomycin (random)	n/a	>20.0 mcg/mL
Positive results for:		
Gonorrhea (urine or urogenital)	HBsAg	
Chlamydia (urine or urogenital)	HAV-IgM	

### Hematology/Coagulation

Test name	Lower Limit	Upper Limit
FDP	n/a	>20 ug/mL
Fibrinogen level	<100 mg/dL	n/a
Hemoglobin	<6.0 g/dl	n/a
INR	n/a	>5.0
Platelet count	<50,000/ul	n/a
PTT	n/a	>140 seconds
WBC	<1500/ul	n/a
Positive result for:	Heparin Induced Platelet antibody	
	Malaria smear	

### Microbiology/Serology

#### Positive culture results:

- Any fungal isolate from surgical or sterile body sites
- Biopsy specimens including bone marrow
- Blood
- Body fluid
- Chlamydia culture
- CSF
- Cultures growing *Listeria*, *Francisella tularensis*, *Bordetella pertussis*, *Legionella*, *Yersinia*, *Vibrio*, *Brucella*, or *Bacillus anthracis*
- Eye and ocular cultures growing *Pseudomonas*, *S. aureus*, *Hemophilus* or *Strep pneumo*.
- Fungal culture growing *Blastomyces*, *Histoplasma*, *Coccidioides* or *Cryptococcus*
- Gonorrhea culture
- Intravascular catheter cannula tips
- MRSA cultures on new in-patients or nursing home patients
- Stool cultures growing *Salmonella*, *Shigella*, *Campylobacter*, or *E coli 0157:H7*
- Strep A cultures—respiratory including throats
- Vancomycin Intermediate/Resistant *Staphylococcus*
- VRE

#### Positive results for:

- *Clostridium difficile* screen
- Cryptococcal antigen
- *Giardia*, *E. Histolytica*, *Cyclospora*, *Cryptosporidium* sp.
- Gram stain or culture on tissue specimens
- Intestinal tapeworms or *Ascaris*
- Rapid HIV-1
- RPR
- TB smears or culture