

## 95536.1430 Critical Value Test List

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### Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Manager Laboratory Operations	1/23/2025	22.0	<i>Lori L. Topper</i> Lori Topper	

Signatures from prior revisions are not listed.

Approvals and periodic reviews that occurred before this document was added to Document Control may not be listed.

### Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
22.0	Approved and Current	Major revision	1/23/2025	1/23/2025	Indefinite

### Linked Documents

- 95536.249 Critical Value Policy

Critical Value Test List

95536.143022.0  
1/23/2025

# TITLE: CRITICAL VALUE TEST LIST

## CRITICAL VALUE (CRITICAL RESULTS)

Definition: Completed critical results that fall significantly outside the normal range and may represent life-threatening values even if the test was performed in a routine priority. These results require rapid clinical attention and rapid communication to avert significant morbidity or mortality when the result falls in the critical range. Results must be reported from the defined time of completion to the responsible caregiver once the result is identified as falling within a “critical value” range.

Documentation Required: Electronic document of the following elements:

1. Specific test called.
2. Name of responsible caregiver.
3. Name of caller.
4. Date/Time of call.
5. Read back verified.

Analyte/Test	Critical Result Range	Expected Reporting Time Inpatient	Expected Reporting Time Outpatient
<b>Hematology/Coagulation</b>			
CSF Cell Count	$\geq 31$ WBC/mm <sup>3</sup> 0 – 1 month $\geq 6$ WBC/mm <sup>3</sup> >1 month	60 minutes	60 minutes
Fibrinogen	$\leq 120$ mg/dl	60 minutes	60 minutes
Hemoglobin (Whole Blood)	$\leq 7.0$ gm/dl	60 minutes	60 minutes
Hematocrit	$\leq 21.0\%$	60 minutes	60 minutes
Platelet Count	$\leq 15$ K/mm <sup>3</sup> (Oncology patients) $\leq 30$ K/mm <sup>3</sup> $\geq 1000$ K/mm <sup>3</sup>	60 minutes	60 minutes
Partial Thromboplastin Time	$\geq 85.0$ seconds	60 minutes	60 minutes
Prothrombin Time	$\geq 5.0$ INR	60 minutes	60 minutes
White Blood Count	Oncology Patients- $\leq 1.0$ K/mm <sup>3</sup> or $\geq 50.0$ K/mm <sup>3</sup> Neonates (0-2 months)- $\leq 3.9$ or $\geq 30.0$ K/mm <sup>3</sup> Pediatrics (2 mos. – 12 years)- $\leq 3.9$ K/mm <sup>3</sup> or $\geq 20.0$ K/mm <sup>3</sup> >12 years to 150 years- $\leq 1.0$ K/mm <sup>3</sup> or $\geq 25.0$ K/mm <sup>3</sup>	60 minutes	60 minutes
<b>Chemistry/Toxicology/Therapeutic Drug Monitoring (TDM) Test</b>			
Acetaminophen	$\geq 70.0$ µg/ml	60 minutes	60 minutes
Amikacin	Peak $>30.0$ µg/ml Trough $>8.1$ µg/ml	60 minutes	60 minutes
Blood Urea Nitrogen	$\geq 40$ mg/dl, if 28 days old or younger	60 minutes	60 minutes
Bilirubin, Total	$\geq 15.1$ mg/dl for 0 – 3 wks	60 minutes	60 minutes
Bilirubin, Cord Blood	$\geq 3.0$ mg/dl	60 minutes	60 minutes
Calcium, Ionized	$\leq 0.80$ mmol/L or $\geq 1.75$ mmol/L	60 minutes	60 minutes
Calcium, serum	$\leq 6.9$ mg/dl or $\geq 12.1$ mg/dl	60 minutes	60 minutes
Carbamazepine (Tegretol)	$\geq 15.1$ µg/ml	60 minutes	60 minutes
CSF Glucose	$\leq 39.0$ mg/dl	60 minutes	60 minutes
CSF Protein	$\geq 100.0$ mg/dl	60 minutes	60 minutes
Dilantin (Phenytoin)	$\geq 30.1$ µg/ml $\geq 20.1$ µg/ml, if less than 3 months old	60 minutes	60 minutes
Gentamicin	Peak $\leq 3.8$ or $\geq 8.2$ µg/ml, up to 12 years Peak $\leq 3.9$ or $\geq 12.1$ µg/ml, greater than 12 years. Trough $\geq 2.1$ µg/ml	60 minutes	60 minutes

## TITLE: CRITICAL VALUE TEST LIST

Analyte/Test	Critical Result Range	Expected Reporting Time Inpatient	Expected Reporting Time Outpatient
Glucose, blood	≤ 39.0 or ≥ 501.0 mg/dl- 19 years to 150 years old; ≤ 49.0 or ≥ 401.0 mg/dl- 13 years to 18 years old; ≤ 49.0 or ≥ 301.0 mg/dl- 3 days to 12 years old; ≤ 39.0 or ≥ 301.0 mg/dl- 0 days to 2 days old	60 minutes	60 minutes
Lactate	≥ 4.0 mmol/L	60 minutes	60 minutes
Lidocaine	≥ 5 ug/mL	60 minutes	60 minutes
Lithium	>1.5 mmol/L	60 minutes	60 minutes
Magnesium	≤ 0.9 mg/dl ≥ 11.0 mg/dl	60 minutes	60 minutes
Phenobarbital	≥ 60.1 µg/ml	60 minutes	60 minutes
Potassium, serum	≤ 2.9 or ≥ 6.1 mmol/L, regardless of specimen appearance	60 minutes	60 minutes
Salicylates	≥ 31.0 mg/dl ≥ 21.0 mg/dl, if less than 12 years old	60 minutes	60 minutes
Sodium, serum	≤ 119 or ≥ 153 mEq/L ≤ 129 or ≥ 153 mEq/L, if less than 12 years old	60 minutes	60 minutes
Tacrolimus (fk506)	<1.0 ng/mL and >15 ng/mL	60 minutes	60 minutes
Tobramycin	Peak >10.0 µg/ml Trough >2.0 µg/ml	60 minutes	60 minutes
Urine sugar or ketones	<u>Any</u> positive result on child less than 3 months old	60 minutes	60 minutes
Valproic Acid	≥ 150.0 µg/ml	60 minutes	60 minutes
Vancomycin	Trough ≥20.1 µg/ml 0 – 150 years Peak ≤ 29.9 µg/ml and ≥ 50.1 µg/ml for < 12 years. Peak ≤ 19.9 µg/ml and ≥ 40.1 µg/ml for 12 – 150 years. Random ≥50.1 µg/ml for <12 years and ≥40.1 µg/ml for >12 years.	60 minutes	60 minutes
<b>Immunoassay Tests</b>			
Digoxin	≥ 2.1 ng/dl	60 minutes	60 minutes
FT4	≥ 6.0 ng/dl for 18 years old and greater	60 minutes	60 minutes
<b>Microbiology Tests</b>			
Agent of Bioterrorism (Confirmed)	Positive	60 minutes	60 minutes
Blood Cultures	Positive for growth smear and/or PCR	60 minutes	60 minutes
Body Fluids, Smear or Culture	Positive for growth and or smear for any sterile body fluid	60 minutes	60 minutes
Cryptococcal Antigen	Positive	60 minutes	60 minutes
CSF Fluid, Smear of Culture	Positive	60 minutes	60 minutes
Group B Strep (OB Inpatient)	Positive	60 minutes	NA
PCR Result: Meningitis Panel, CSF, Chlamydia, Mycoplasma	Positive	60 minutes	60 minutes

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Analyte/Test	Critical Result Range	Expected Reporting Time Inpatient	Expected Reporting Time Outpatient
<b>Referral Lab Tests</b>			
Acetone	≥50 mg/dL	60 minutes	Report as soon as possible
Amitriptyline+nortriptyline	≥1000 mcg/L	60 minutes	Report as soon as possible
Bordetella	Positive	60 minutes	Report as soon as possible
Cadmium, 24hr urine	>10 mcg/L	60 minutes	Report as soon as possible
Cadmium, blood	≥30 mcg/L	60 minutes	Report as soon as possible
Caffeine	≥50 mg/L	60 minutes	Report as soon as possible
Cerebrospinal fluid	Any Abnormal Results	60 minutes	Report as soon as possible
Chlorpromazine	≥750 ng/mL	60 minutes	Report as soon as possible
Clomipramine and metabolite	≥600 ng/mL	60 minutes	Report as soon as possible
Clozapine	≥900 ng/mL	60 minutes	Report as soon as possible
Cobalt, blood	≥400 mcg/L	60 minutes	Report as soon as possible
Cyclosporine, trough	≥600 mcg/L	60 minutes	Report as soon as possible
Desipramine	≥600 mcg/L	60 minutes	Report as soon as possible
Disopyramide	≥7.0 mg/L	60 minutes	Report as soon as possible
Doxepin + nordoxepin	≥600 mcg/L	60 minutes	Report as soon as possible
Ethosuximide	≥150 mg/L	60 minutes	Report as soon as possible
Ethylene glycol	≥100 mg/L	60 minutes	Report as soon as possible
Flecainide	≥1.0 mg/L	60 minutes	Report as soon as possible
Fluphenazine	≥50 mcg/L	60 minutes	Report as soon as possible
Glomerular basement membrane ab igg	≥1 AI	60 minutes	Report as soon as possible
HIPAA	Positive	60 minutes to Pharmacy at ext 44917	Report as soon as possible to Ordering Provider
Imipramine or desipramine	≥600 mcg/L	60 minutes	Report as soon as possible
Isopropanol	≥50 mg/dL	60 minutes	Report as soon as possible
Lead	Patient <18 Years old ≥45 mcg/dL	60 minutes	Report as soon as possible
Lidocaine	≥6.0 mg/L	60 minutes	Report as soon as possible
Malaria parasites	Positive for P. falciparum or unspciated Plasmodium that is possible P. falciparum	60 minutes	Report as soon as possible
Meconium drug (confirmation)	Positive	60 minutes	Report as soon as possible
Mercury, urine 24 hr	≥150 mcg/L	60 minutes	Report as soon as possible
Mercury urine random	≥150 mcg/g creatinine	60 minutes	Report as soon as possible
Methanol	≥10 mg/dL	60 minutes	Report as soon as possible
Mycophenolic acid	<0.5 mcg/mL	60 minutes	Report as soon as possible
Nortriptyline	≥500 mcg/L	60 minutes	Report as soon as possible
Phenytoin	≥40 mg/L	60 minutes	Report as soon as possible
Phenytoin, free	>3 mg/L	60 minutes	Report as soon as possible

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Analyte/Test	Critical Result Range	Expected Reporting Time Inpatient	Expected Reporting Time Outpatient
Primidone	>15 mg/L	60 minutes	Report as soon as possible
Procainamide	≥14 mg/L	60 minutes	Report as soon as possible
Procainamide + napa	>30 mg/L	60 minutes	Report as soon as possible
Propafenone	>2 mg/L	60 minutes	Report as soon as possible
Quinidine	≥10 mg/L	60 minutes	Report as soon as possible
Thallium, blood	≥80 mcg/L	60 minutes	Report as soon as possible
Theophylline	<6 months age: >10.0 mg/L ≥6 months age: ≥40.0 mg/L	60 minutes	Report as soon as possible
Viscosity, serum	≥3.0 [relative to water]	60 minutes	Report as soon as possible

## LIFE ALTERING INFORMATION (VITAL VALUES)

Results from tests or analyses that are not immediately life-threatening or life-altering but strongly impact the patient's care and outcome. May be reported by "normal" reporting means provided the result is communicated or sent to the responsible clinician in a timely manner. Analyte-specific criteria apply for expected reporting times. (Normal reporting = paper chart reports generation; electronic availability of results).

Test/Analyte	Vital Value	Expected Reporting Time	Documentation Required
Pathology Reports	Malignancy – Unexpected and first time Malignancy on Biopsy	24 hours of final dx.	Pathologist will call Provider with report
AFB Smear or Culture	Positive for growth and smear	Call within 24 hours of Referral Lab notification	Electronic Documentation: Name of recipient of the called report.
Carbapenemase (CRE), any specimen	Positive Cultures	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.
C.diff, EIA and PCR	Positive (Inpatients and Nursing Homes)	Call within 24 hours	Electronic Documentation: Name of recipient of the called report.
COVID-19	Positive	Normal reporting per algorithm	Electronic Reporting to EPIC Fax/Report to LG or Non-LG Practices or Providers
Creutzfeldt-Jakob Disease	Positive	Call or fax within 24 hours	Electronic Documentation: Name of recipient of the called or faxed report.
Enterococcus faecalis/faecium, VRE	Resistant to Vancomycin	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.
Extended Spectrum, ESBL	Positive Cultures	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.

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Test/Analyte	Vital Value	Expected Reporting Time	Documentation Required
Factor V Leiden	Homozygous	Call same or next business day	Electronic Documentation: Name of recipient of the called or faxed report.
HIV, HTLV	Positive	Normal Reporting	Normal Reporting
LDLD	>190	Call same or next business day	Electronic Documentation: Name of recipient of the called or faxed report.
Legionella Urine Antigen	Positive	Call within 24 hours	Electronic Documentation: Name of recipient of the faxed report.
MRSA, culture or PCR, Blood Wound Nasal	Positive	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the faxed report.
Neisseria gonorrhoeae Culture	Positive	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.
Neisseria meningitides (respiratory specimens-not throat)	Positive	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.
PCR Result: Influenza, RSV (pediatric only)	Positive	Normal reporting	Electronic Reporting to EPIC Fax/Report to LG or Non-LG Practices or Providers
Pneumocystis (Jirovecii)	Positive	Call or fax within 24 hours	Electronic Documentation: Name of recipient of the called or faxed report.
Rotavirus	Positive	Call within 24 hours (Inpatient) Fax within 24 hours (Outpatient)	Electronic Documentation: Name of recipient of the called or faxed report.
VITAD	>100 ng/mL	Call same or next business day	Electronic Documentation: Name of recipient of the called or faxed report.

### CRITICAL TEST

Must be reported within 30 minutes of test completion to the responsible caregiver regardless of result. Each test has a defined turnaround time (TAT) requirement in minutes for when the result (even if normal or abnormal) must be communicated from Order to Result Communication.

Test/Analyte	Result	Expected Reporting Time	Documentation Required
Frozen Section	Any Result	90% < 20 min CAP (Receipt to Report)	Electronic Documentation: Name of recipient of the faxed or called report.
Intra-OP PTH	Any Result	5 minutes; Final Specimen 30 minutes	Electronic Documentation: Name of recipient of the faxed or called report.