# 259.259 Critical Value Reporting

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**Organization** Porter Medical Center

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### Approval and Periodic Review Signatures

| Type | Description | Date | Version | Performed By | Notes |
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| Approval | Reviewed by Laboratory Manager | 12/7/2025 | 20.0 | Lia McFarline | |

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.

### Prior History

**Employee Initial Review**

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## Version History

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| 20.0 | Approved and Current | Major revision | 11/18/2025 | 12/9/2025 | Indefinite |

# Critical Value Reporting

## Table of Contents

# Critical Value Reporting

## GENERAL

PURPOSE

- The Critical Value List is a valuable working tool that specifies which tests and ranges of results constitute a critical value and require immediate notification of the results to the patient's physician. The list has been approved by the pathologist and by the medical staff of UVM Health Network/Porter Medical Center/Laboratory. The critical values list can be found as APPENDIX A of this procedure.

RESPONSIBILITY

**It is the responsibility of the technician/technologist to:**

- Review and verify patient results in a timely manner.
- Notify the physician or appropriate clinical individual of the critical value immediately and document in the computer that notification has been done. ***COM.30000***
- If an inpatient has been discharged, notify the ordering physician.
- Notify the "on call" physician during evening, nights, or weekends. As a courtesy to the 'on call' physician, any information on the original order may be useful (home telephone, diagnosis, address), so have the requisition available when you make the call. If the computer has any prior results on the patient, the physician may also be interested in this information.
- Documentation must include the **name** (first and last name), the **credentials** and the **location** of the Physician, or appropriate clinical individual receiving and reading back the results. The date, time, and your name are automatically documented by computer. ***COM.30100***
- ***Be sure the results are read back to you by the person receiving the results.***
- All critical value notifications will be documented in the computer even if the responsible party is not contacted until the next day.
- Faxing and/or printing report to physician or department is not sufficient notification of a critical value.
    - There is no guarantee that report will arrive or that anyone will look at the report. You must call and notify a responsible party of critical value.

# Critical Value Reporting

## PROCEDURE

1. If the critical value is obtained on testing performed at UVMH Porter Medical Center Laboratory, perform the following steps:

| If | Then |
|---|---|
| Critical value is obtained in **Blood Banking (Antibody Screen POS)** | • Repeat the test(s) using either the primary tube or a new aliquot of the patient's sample. |
| Critical value is in **Hematology** | • Rerun well-mixed sample and/or make a second slide and review. Analyzer auto reruns. |
| Critical value in **Microbiology, Chemistry, Coag. or Urinalysis** | • Recheck labels, reagents, etc. to verify correct patient sample, correct reagents, etc.<br>• It is up to the discretion of Tech and at request of provider, if it is to be repeated |

2. For both critical values obtained on testing performed at UVMH Porter Medical Center and Reference Laboratories, determine the patient's location for notification and documentation purposes. If the provider works at two different locations, confirm the ordering department prior to making the phone call. When calling the critical value, prior to providing the appropriate clinical individual with result, request their full name (first and last) and credentials.

| If | Then |
|---|---|
| Patient is an in-house patient | • Call the respective in-house department and state you have critical values that need to be relayed to patient's physician.<br>• Results must be given to appropriate clinical individual. |
| Patient is an HPHRC resident | • Notify either the primary care physician or the appropriate clinical individual. |
| Patient has been discharged | • Notify the ordering/on-call physician |
| Patient is an outpatient and it is during normal office hours | • Call office and appropriate clinical individual.<br>• State that the critical values must be brought to the physician's attention immediately |
| UVMMC Hematology Oncology | • Call the office and give critical result information to the appropriate clinical individual or patient access designee. |
| Patient is an outpatient and it is before/after normal office hours | • Notify the physician on-call. |

3. Using the **CommLog** function in the LIS - record the name (first and last name), the credentials and the location of the physician or clinical individual receiving and reading back the results. The date, time, and your name are automatically documented by computer.

4. **If notification cannot be completed within 30 minutes-**
    a. Technologist should contact call center again for a second page.
    b. If after 2 attempts, there is no response, then they must call the center one more time asking for an additional person on call to be paged.
    c. Lab will make three attempts. If after the third attempt, there has been no call back, please reach out to the Emergency Department and explain your situation and ask for their help with getting ahold of the provider or patient.
    d. Document all attempts in the Comm log and the start time of first phone call to make sure we are in compliance of starting the communication within 30 minutes of receipt of critical**.**
5. ***NOTE: The exception to this is CSF cell count/differentials – may take up to 1 hr. to report.***

## REFERENCES

- CAP Standards: COM.30000, COM.30100

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## REVISION HISTORY

- Refer to MediaLab

## APPENDICES

- Appendix A: Critical Values Chart

# Critical Value Chart

## APPENDIX A: Critical Values Chart

| Department | Test | Critical – call within 30 minutes | |
|---|---|---|---|
| Blood Bank | Compatibility | Any compatibility problems. | |
| | Transfusion Reactions | Any transfusion reactions indicating incompatibility. | |
| Chemistry | Acetaminophen | All Ages: ≥150.0 µg/mL | |
| | Conjugated Bilirubin (Bc) | 0-18 yrs | ≥1.0 mg/dL |
| | | 18 yrs to unspecified | >15.0 mg/dL |
| | Calcium | 0-1 month | < 6.5 or > 12.0mg/dL |
| | | 1 month to unspecified | < 6.5 or > 11.5 mg/dL |
| | Carbon Dioxide | <10 or >40 mmol/L | |
| | Creatinine | 0-18 yrs | ≥ 2.0 mg/dL |
| | | 18 yrs to unspecified | ≥15.0 mg/dL |
| | Creatinine: Delta Critical Value | 0-18yrs | ≥ 0.3 mg/dL higher than previous |
| | | >18yrs to unspecified | • 5.0 mg/dL with no previous value<br>• 3X higher than the previous (If previous is >1.5mg/dL<br>• > 4.0 mg/dL and > 2.5 mg/dL higher than previous value |
| | Glucose (Serum/Plasma) | 0-1 day | <40 or >80 |
| | | 0 up to 7 days | < 40 or > 180 mg/dL |
| | | 7 days up to 18 yrs | < 50 or > 300 mg/dl |
| | | 18 yrs up to unspecified | ≤ 55 or > 500 mg/dL |
| | Glucose *Gestational Tolerance test | 0 up to 18 yrs | < 50 or > 300 mg/dl |
| | | 18 yrs to unspecified | <55 or >500 mg/dL |
| | Lithium | >1.5 mmol/L | |
| | Magnesium | ≤ 1.0 and >4.8 mg/dL | |
| | Procalcitonin | >2.00 | |
| | Potassium | < 3.0 or ≥6.0 mmol/L | |
| | Salicylate | > 30 mg/dL | |
| | Sodium | < 125 or > 155 mmol/L | |
| | Total Bilirubin | 1 month to unspecified | >15 mg/dL |
| | Troponin | > 0.034 **Courtesy call for first elevated value in a series. | |
| | Unconjugated Bilirubin (Bu) | 0 to unspecified | > 15.0 mg/dL |
| | Valproic | 0-18 yrs | ≥ 125 µg/mL |
| | | 18 yrs to unspecified | > 150 µg/mL |
| | Vancomycin Trough | >25 µg/mL | |
| RapidPoint | Lactate | > 2.0 mmol/L | |
| | Sodium | <125 or >155 mmol/L | |
| | Potassium | <3 or ≥6 mmol/L | |
| | pH Blood Gases – Whole Blood Arterial Capillary | 0-7 days | <7.2 or >7.5 |
| | | 7d – 6mo | |
| | | ≥6mo | <7.2 or >7.55 |
| | – Whole Blood Venous | 0-6mo | <7.2 or >7.5 |
| | – Cord Arterial/Venous | N/A | ≤7.1 |
| | pCO2 - whole blood arterial/venous/capillary | 0-18 yrs | <20 or >70 mmHg |
| | Ionized Calcium | 0-6mo | < 0.85 or >1.6 mmol/L |
| | | 6 mo-18yrs | < 0.80 or >1.45 mmol/L |

# Critical Value Chart

| | | | | |
|---|---|---|---|---|
| | | ≥18 yrs | <0.80 or >1.60 mmol/L |
| | Base Excess - Cord Arterial/Venous | ≤-10 | |
| | TCO2 – whole blood | <10 or >40 mmol/L | |
| | Carboxyhemoglobin (COHb) | > 15% | |
| Hematology | Hemoglobin | Less than 7mg/dl | |
| | Hematocrit | 0-6 months | < 25 % |
| | | 6 months to unspecified | < 21 % |
| | WBCs | < 1.0 or >50.0 K/cmm | |
| | Absolute (ABS) Neutrophil count (ANC) | < 0.50 K/cmm | |
| | Platelets | < 21 or > 1200 K/cmm | |
| | Blasts | >20 % | |
| | CSF TNC | ≥100 /cmm | |
| Coagulation | INR | ≥ 5.0 | |
| | PTT | > 100 sec. | |
| | Fibrinogen | < 90 mg/dL | |
| | Heparin Level – UFH | > 1.0 IU/mL | |
| | Heparin Level – LMWH | > 2.0 IU/mL | |
| Urinalysis | Ketones | 3+ (large) | |
| Microbiology | Blood Cultures | Growth of any organism | |
| | Fluid Gram stains (CSF) | Growth of any organism | |
| | CDIF PCR | BOTH Toxigenic CDIF Positive and 027, NAP1, BI strain Positive | |
| Send Out tests | CSF Gram stains/Cultures | Growth of any organism | |
| | Mycobacteria TB Complex PCR | Positive | |
| | Plasmodium (all species) in Blood parasite exam (PBEX) or BinaxNow antigen | Positive | |
| Point of Care | NOVA Glucometer (0-24 hrs) | Glucose | Refer to Newborn Hypoglycemic Protocol |
| | NOVA Glucometer (1- 8 days) | Glucose | <40 mg/dL OR >180 mg/dL<br>If < 30 confirm via lab draw within 1 hour |
| | NOVA Glucometer (>/= 8 days to Adult) | Glucose | <50 mg/dL OR >500 mg/dL<br>If > 500 confirm via lab draw within 1 hour |
| | Coagucheck XS | INR | ≥ 5.0, send to main lab for confirmation |
| | Hemocue | Hemoglobin | >7.0 g/dL, confirm result if requested |
| | Clinitek Status+ | Urine - Ketones | 3+ or 4+ |
| | Lead Care II | Lead | ≥ 45 µg/dL |