



Applies to: All Medical Technologists, Duty Physicians, and Nursing Staff | Effective: MM-DD-YYYY | Supersedes: None

CRITICAL VALUE PANIC THRESHOLDS & 15-MINUTE READ-BACK WALL CHART

MANDATORY IMMEDIATE ESCALATION PROTOCOL • TARGET CALL TIME: < 15 MINUTES

1. APPROVED LABORATORY PANIC THRESHOLDS (CLINICAL CHEMISTRY & HEMATOLOGY)

Examination / Analyte	Conventional	SI Units	Critical Low Limit	Critical High Limit
Hemoglobin (HGB) (Adult)	g/dL	g/L	< 6.5 g/dL (< 65 g/L)	> 20.0 g/dL (> 200 g/L)
Hematocrit (HCT) (Adult)	%	Volume fraction	< 20.0% (< 0.20 L/L)	> 60.0% (> 0.60 L/L)
White Blood Cell (WBC)	$\times 10^3/\mu\text{L}$	$\times 10^9/\text{L}$	< $2.0 \times 10^3/\mu\text{L}$ (< $2.0 \times 10^9/\text{L}$)	> $30.0 \times 10^3/\mu\text{L}$ (> $30.0 \times 10^9/\text{L}$)
Platelet Count (PLT)	$\times 10^3/\mu\text{L}$	$\times 10^9/\text{L}$	< $50 \times 10^3/\mu\text{L}$ (< $50 \times 10^9/\text{L}$)	> $1,000 \times 10^3/\mu\text{L}$ (> $1,000 \times 10^9/\text{L}$)
Peripheral Blood Smear	Microscopic Morphology		Initial detection of blasts or intracellular micro-organisms; acute leukemic presentation	
Glucose (Adult / Pediatric)	mg/dL	mmol/L	< 45 mg/dL (< 2.5 mmol/L)	> 450 mg/dL (> 25.0 mmol/L)
Glucose (Neonatal)	mg/dL	mmol/L	< 30 mg/dL (< 1.7 mmol/L)	> 300 mg/dL (> 16.7 mmol/L)
Serum Potassium (K^+)	mmol/L	mmol/L	< 2.8 mmol/L	> 6.2 mmol/L
Serum Sodium (Na^+)	mmol/L	mmol/L	< 120 mmol/L	> 160 mmol/L
Serum Creatinine	mg/dL	$\mu\text{mol/L}$	None	> 5.0 mg/dL (> 442 $\mu\text{mol/L}$) new-onset

Panic thresholds = critical results (CLSI GP47 / ISO 15189:2022).

MANDATORY STANDARDIZED TELEPHONE READ-BACK SCRIPT (LAB-QM-POST-002 §5.3)

"Hello, this is [Name/ID] from the Clinical Laboratory. I have a **CRITICAL LABORATORY RESULT** for your patient. Please record: Patient [Full Name], Hospital ID/MRN [Number], located at [Ward/Unit]. Test [Test Name], Critical Result [Value and Units]. **Please read this entire message back to me.**"
→ Listen carefully to verbatim read-back. Conclude only after confirming: "Confirmed, thank you" or immediately correct discrepancies.

2. MANDATORY 4-TIER ESCALATION HIERARCHY (COMPLETE WITHIN ≤ 15 MINUTES)

TIER 1 (PRIMARY)
Attending / Requesting MD
Direct Phone Contact

→
TIER 2 (1ST ESCALATION)
24-Hour Duty Doctor
If Attending MD Unavailable

→
TIER 3 (2ND ESCALATION)
Nurse-in-Charge
Inpatient Ward / ER (24/7)

→
TIER 4 (ADMINISTRATIVE)
CMT / Pathologist
If All 3 Contacts Unreachable

No voicemail/text for critical values. Callback on first occurrence only (avoid alarm fatigue).

Escalation 1 phone: _____ | Escalation 2 phone: _____ | Escalation 3 phone: _____ | CMT/Pathologist phone: _____

1 Pre-Call Verification (§5.2)

- **Tube & Request Check:** Verify patient name & MRN concordance.
- **Specimen Integrity:** Check for micro-clots, hemolysis, lipemia.
- **IQC & Repeat:** Ensure run QC in control; repeat from primary tube.

2 Mandatory Log Entry (§5.5)

Log immediately in **F-QM-POST-002-A-V0**:

- Exact date and notification timestamp (target ≤ 15 min).
- Patient full name, MRN, test name, critical value, units.
- Recipient full name, title, confirmed read-back, MT signature.

Prepared by: Chief Medical Technologist
Signature/Date: _____

Reviewed by: Pathologist
Signature/Date: _____

Approved by: Hospital Director
Signature/Date: _____