

Date: 2026-03-10 | Author: Dr. Lisa Park

CLINICAL LABORATORY ? TURNAROUND TIME IMPROVEMENT REPORT

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EXECUTIVE SUMMARY:

The Clinical Laboratory has achieved significant improvements in test turnaround times (TAT) during Q1 2026 through process automation and workflow redesign. These improvements directly support clinical decision-making and patient throughput.

KEY METRICS:

- Complete Blood Count (CBC): TAT reduced from 58 min to 22 min (62% improvement)
- Basic Metabolic Panel (BMP): TAT reduced from 72 min to 31 min (57% improvement)
- Troponin (STAT): TAT reduced from 45 min to 18 min (60% improvement)
- Blood culture preliminary results: Reduced from 48 hours to 24 hours
- Critical value notification: Average 6 minutes from result to clinician notification

AUTOMATION INVESTMENTS:

The new Beckman Coulter DxA 5000 laboratory automation system was installed in January 2026. This system automates sample receiving, centrifugation, aliquoting, and routing to analytical instruments. It has reduced manual handling steps by 80% and virtually eliminated sample labeling errors.

IMPACT ON PATIENT CARE:

Faster lab results have enabled the Emergency Department to reduce average decision-to-disposition times by 35 minutes. The hospital's sepsis bundle compliance (including lactate result within 1 hour) improved from 72% to 94%.

QUALITY INDICATORS:

- Specimen rejection rate: 0.8% (down from 2.1%)
- Critical value notification compliance: 99.6%
- Proficiency testing scores: 100% satisfactory across all disciplines

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