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ABSTRACT

Title of Abstract : Analysis of Test Result Timeliness as a Laboratory Service Quality Indicator
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Background : Timeliness of laboratory result reporting is a key quality indicator that reflects efficiency, professionalism, and customer satisfaction in accordance with ISO 15189:2022 standards. Reporting delays remain a common issue in public laboratories due to limited resources and system inefficiencies. This study addresses practical, scientific, and theoretical gaps in understanding factors influencing turnaround time (TAT) in regional laboratories and how digital quality systems can improve service performance.

Objective : This study aimed to analyze the level of reporting timeliness and identify factors contributing to delays at the Provincial Health Laboratory (UPTD Labkes) of East Kalimantan during January–June 2025.

Research Methods/ Implementation Methods : A descriptive quantitative approach was applied using primary data from laboratory test logs, interviews, and field observations, along with secondary data from internal quality indicator reports.

Results : The findings revealed an average reporting timeliness of 88.2%, still below the minimum internal quality target of 90%, with variations among divisions. The Biomolecular and Calibration units achieved 100%, while the Congenital Hypothyroid Screening (CHS) program recorded the lowest timeliness at 86.8%. Reporting delays were mainly due to high workloads, limited human resources, suboptimal LIS/SIL transition, technical constraints in MMPI scoring, and reagent supply delays.

Conclusion/Lesson Learned : Improvement strategies include optimizing human resource planning, strengthening integrated digital systems, enhancing staff competence through the PDCA cycle, and real-time reagent monitoring. Digital transformation and continuous quality system implementation are strategic measures to achieve fast, accurate, and trustworthy laboratory services aligned with international standards.

Keyword : Timeliness; Quality indicator; ISO 15189; Health laboratory; PDCA