Presentation Abstracts

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Effectiveness of using an artificial intelligence platform in quality of care and health management

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Introduction: Modern healthcare systems demand innovative solutions to enhancecare quality and streamline hospital management. Artificial intelligence (AI) platforms, integrating complex data from various hospital systems, offer promising tools toaddress these challenges.[1,2] This study evaluates the impact of implementing the QlinkAI platform in a private hospital in São Paulo's interior, aiming to improve patient safety, elevate care standards, and enhance operational efficiency. Detailed analysis includes assessing reductions in hospital infections, improvement in diagnostic accuracy, and enhanced interdepartmental communication. This study contributes findings into AI's transformative role in healthcare practices. **Objective:** Evaluate Qlink's impact on care quality and hospital management in aprivate hospital in a city in the interior of the State of São Paulo. **Methods:** Using the Process Improvement Studies approach from 2023 to 2024, the study analyzed and enhanced professional and management practices. Before Qlink, manual microorganism control by the Healthcare-Associated Infection Control Service was segmented. Implementation of Qlink improved patient care safety, service quality, and interdepartmental communication. Data collection involved meticulous documenter views, administrative indicator analysis, and structured interviews. Comparative pre-and post-implementation analysis identified significant improvements in infection rates, operational efficiency, and communication. **Results:** The study provided a comprehensive 2023-2024 microbiological profile, analyzing blood cultures, tracheal secretions, and urine samples. Variations in microorganism prevalence and resistance were observed, notably in Escherichia coliand Staphylococcus aureus. Tracheal secretions highlighted Klebsiella and Pseudomonas resistance impacts, with ICU-specific data revealing microorganism evolution. Antimicrobial resistance analysis categorized microorganisms, prompting antibiotic use policy adjustments. Qlink integration facilitated real-time data monitoring, improving interdepartmental communication, automating monitoring, optimizing resource allocation, and enhancing operational efficiency. **Conclusion:** It is concluded that Qlink significantly enhanced care quality, patient safety, and hospital efficiency, with reduced infection rates and improved communication. Future research should focus on resistance monitoring, healthcareprofessional training, and Qlink integration for comprehensive benefits optimization.

▌ **REFERENCES**

1. Dong J, Wu H, Zhou D, Li K, Zhang Y, Ji H, et al. Application of Big Data and Artificial Intelligence in COVID-19 Prevention, Diagnosis, Treatment and Management Decisions in China. J Med Syst. 2021;45(9):84. Review.

2. Sheikh A, Anderson M, Albala S, Casadei B, Franklin BD, Richards M, et al. Health information technology and digital innovation for national learning health and care systems. Lancet Digit Health. 2021;3(6):e383-96. Review.