Antibiotic Stewardship Program's potential impacts on financial and clinical outcomes in a public hospital: a Real-World study

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Abstract

Background: In times of antibiotic resistance, Antimicrobial Stewardship Programs (ASP) emerge as a strategy to improve clinical outcomes and hospital resource management. Methods: The study was conducted on a single-center retrospective cohort of adult inpatients admitted to a public hospital in Brazil's capital and submitted to ASP from September 2018 to April 2019, aiming to assess the clinical and economic impact of following ASP instructions. Results: The medical records of 449 patients were included. Mean age was 54.92 years, with a predominance of male sex 273 (60.93%), and 374 (83.48%) had comorbidities. Only 52.56% of the prescriptions followed the guidelines of ASP. The study demonstrated a significant improvement in clinical outcomes, such as a reduction of mortality (p=0.01), of hospital length of stay (p<0.01) and of ICU admissions (p<0.01). We also detected potential savings per patient provided by compliance with ASP's recommendations. Conclusion: The present study was able to demonstrate positive clinical outcomes associated with the implementation of an ASP in a real-world scenario.

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