

1. Antimicrobial stewardship programs in seven Latin American countries: facing the challenges

Programas de administración de antimicrobianos en siete países de América Latina: enfrentando los desafíos

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ABSTRACTO	<p>Background: Studies have shown that more than 50% of the antibiotics used in hospitals are unnecessary or inappropriate and, that antimicrobial resistance may cost up to 20 billion USD in excess medical costs each year. On the other hand, Antimicrobial Stewardship Programs (ASP) significantly reduce inappropriate antimicrobial use, emergence of antimicrobial resistance, healthcare associated infections, and costs in hospital settings. Objective: To evaluate the development of ASP and antibiotic savings in 7 Latin American hospitals using standardized quantitative indicators in all the participating health care institutions. Methods: An interventional study was conducted, where pre- and post-evaluations were performed using a standardized score tool adapted from the Joint Commission International accreditation standards and, the Colombian Institute of Technical Standards and Certification. We evaluated ASP from 7 Latin American hospitals between 2019 and 2020. A pre-intervention evaluation was done in each hospital to quantify the degree of development of the ASP (ASP Development score). Based on these results, tailored on-site training was implemented in each hospital, followed by a post-intervention evaluation to quantify improvement of ASP-development indicators. In addition, monetary savings in antimicrobials derived from the ASP intervention were estimated. Results: In the pre-intervention evaluation, the average ASP development score for the 7 institutions was 65.8% (40-94.3%). The items with the lowest development score were those related to monitoring and communicating the ASP progress and success. For the post-intervention evaluation, 2 institutions couldn't participate due to the pressure imposed by the COVID-19 pandemic. For the remaining 5/7 hospitals, the average ASP development score was 82.3% with an increase of 12.0% when compared to the pre-intervention measurement of the same institutions (average pre-intervention score 70.3% (48.2%-94.3%) The items with a significant increase were key performance indicators, AMS education and training of the prescribers.</p>

Three of the seven (3/7) hospitals reported antibiotic monetary savings associated to the ASP intervention. Conclusions: The use of the tool described shown to be useful to evaluate specific areas of ASP-development that were lacking and tailor interventions for the participating hospitals, consequently, it helped improve ASP-development in the institutions that underwent pre- intervention and post-intervention analysis. In addition, the strategies showed monetary savings on antimicrobial costs when measured.