

Impact of Antibiotic Stewardship Programs on Reducing Inappropriate Antibiotic Prescribing in Hospitalized Patients

Laila Woc-Colburn*

Department of Infectious Diseases, Department of Medicine, Baylor College of Medicine, Houston, TX, USA

Introduction

Antibiotics are a critical component of modern medicine, saving countless lives by treating bacterial infections. However, their widespread use has also contributed to the emergence of antibiotic-resistant bacteria, which pose a significant threat to public health. Inappropriate antibiotic prescribing, including overuse, misuse, and unnecessary use, is a major driver of antibiotic resistance. Antibiotic stewardship programs (ASPs) have been developed as a response to this issue, with the aim of promoting the rational use of antibiotics and reducing inappropriate prescribing. In this note, we will discuss the impact of ASPs on reducing inappropriate antibiotic prescribing in hospitalized patients [1].

Description

Antibiotic stewardship programs (ASPs) are evidence-based strategies designed to optimize antibiotic use, reduce the emergence of antibiotic-resistant bacteria, and improve patient outcomes. These programs involve a multidisciplinary team of healthcare professionals, including physicians, pharmacists, nurses, and infection control specialists, who work together to ensure the appropriate use of antibiotics. The core elements of ASPs include the development of guidelines for antibiotic selection, dose, and duration, the implementation of regular monitoring of antibiotic use, and the use of interventions to address inappropriate prescribing patterns. These interventions may include feedback to clinicians, education on rational antibiotic use, and the implementation of antimicrobial stewardship protocols [2].

The implementation of ASPs has been shown to be effective in reducing inappropriate antibiotic prescribing in hospitalized patients. ASPs have been associated with reductions in the use of broad-spectrum antibiotics, the duration of antibiotic therapy, and the incidence of *Clostridioides difficile* infections. Additionally, ASPs have been associated with improved patient outcomes, including reductions in antibiotic-associated adverse events and length of hospital stay. ASPs have also been found to be cost-effective, with the potential to reduce healthcare costs associated with inappropriate antibiotic prescribing. Furthermore, ASPs have been shown to be feasible in a variety of healthcare settings, including community hospitals and long-term care facilities [3].

The success of ASPs in reducing inappropriate antibiotic prescribing is dependent on several factors, including the support of hospital leadership, the engagement of healthcare providers, and the availability of resources for implementation and monitoring. Additionally, ASPs should be tailored to the

specific needs and characteristics of the healthcare setting in which they are being implemented. ASPs are a key component of antimicrobial stewardship, which encompasses a range of strategies aimed at optimizing the use of antimicrobial agents to reduce the development of antimicrobial resistance. The World Health Organization (WHO) has identified antimicrobial resistance as a global health priority and has called for the development and implementation of national and international antimicrobial stewardship programs [4].

In addition to reducing inappropriate antibiotic prescribing, ASPs have the potential to improve the quality of patient care and promote antimicrobial stewardship across healthcare settings. By promoting the rational use of antibiotics, ASPs can help to reduce the risk of adverse events associated with antibiotic use, such as allergic reactions, drug interactions, and the development of antibiotic-resistant infections [5].

Conclusion

In conclusion, ASPs are an important strategy for promoting the rational use of antibiotics and reducing inappropriate prescribing in hospitalized patients. The implementation of ASPs can improve patient outcomes, reduce healthcare costs, and help to preserve the effectiveness of antibiotics. As such, healthcare facilities should consider implementing ASPs as part of their infection prevention and control programs.

References

1. Dellit, Timothy H., Robert C. Owens, John E. McGowan and W. Charles Huskins, et al. "Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America guidelines for developing an institutional program to enhance antimicrobial stewardship." *Clin Infect Dis* 44 (2007): 159-177.
2. Barlam, Tamar F., Sara E. Cosgrove, Lilian M. Abbo and Arjun Srinivasan, et al. "Implementing an antibiotic stewardship program: guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America." *Clin Infect Dis* 62 (2016): e51-e77.
3. World Health Organization. "World report on ageing and health." WHO 2015.
4. Fishman, Neil, Society for Healthcare Epidemiology of America and Infectious Diseases Society of America. "Policy statement on antimicrobial stewardship by the society for healthcare epidemiology of America (SHEA), the infectious diseases society of America (IDSA), and the pediatric infectious diseases society (PIDS)." *Infect Control Hosp Epidemiol* 33 (2012): 322-327.
5. Van Daalen FV, van den Bosch CM, Geerlings SE. "Antibiotic stewardship in hospitals: An overview." *Curr Opin Infect Dis* 30 (2017): 570-576.

*Address for Correspondence: Laila Woc-Colburn, Department of Infectious Diseases, Department of Medicine, Baylor College of Medicine, Houston, TX, USA; E-mail: Colburn73@gmail.com

Copyright: © 2023 Woc-Colburn L. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 27 January 2023, Manuscript No. jidm-23-95639; Editor Assigned: 30 January 2023, PreQC No. P-95639; Reviewed: 27 March 2023, QC No. Q-95639; Revised: 01 April 2023, Manuscript No. R-95639; Published: 10 April 2023, DOI:10.37421/2576-1420.2023.8.279

How to cite this article: Woc-Colburn, Laila. "Impact of Antibiotic Stewardship Programs on Reducing Inappropriate Antibiotic Prescribing in Hospitalized Patients." *J Infect Dis Med* 8 (2023): 279.