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Brief Communication

The Brazilian collaborative on antimicrobial stewardship: A value-based healthcare approach



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Dear Editor,

The misuse of antibiotics and its consequence of Antimicrobial Resistance (AMR) are critical for health systems in low and middle-income countries, where health resources are scarce, and inequalities in access to diagnostic and therapeutic options are even greater.¹ A study in 9 Latin American countries showed a significant improvement in antimicrobial use when more comprehensive Antimicrobial Stewardship Programs were available.² Furthermore, prevention of

antimicrobial drugs-related toxicity should also be a potential benefit of ASP, mainly with vancomycin, aminoglycosides and voriconazole.³ However, despite these data, the first nationwide survey involving 957 Brazilian Adult ICUs found that 52.5 % of these hospitals still do not have ASPs in ICUs.⁴ In response to these challenges, a task force was created in Brazil to promote ASPs. The initiative is a national collaboration including infectious disease specialists, microbiologists, pharmacists, and specialists in Value-Based Healthcare (VBHC) to promote the responsible use of antimicrobial agents. Our collaborative is committed to the principles of

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VBHC,⁵ a concept of four value-pillars: (i) Technical Value (i.e., best possible outcomes with available resources, and expressed in Porter's Value Equation, (ii) Personal Value, (i.e., appropriate care and how well the outcomes achieved relates to the goals of individuals); (iii) Allocative value (i.e., equitable resource distribution), (iv) Societal Value (i.e., contribution of healthcare to society as a whole). This broader concept of VBHC is of utmost importance in countries, such as Brazil, to reduce health inequities. The Brazilian Collaborative on Antimicrobial Stewardship unifies the debate across different medical societies and key professionals on the topic of antimicrobial management in Brazil, while it leverages the reach of actions in relation to what members could achieve individually. In conclusion, we hope that our efforts will inspire other low- and middle-income countries that seek to follow and contribute to the global effort of ASP-VBHC implementation, and to the reduction of AMR and the environmental tragedy that is unfolding. Our goal with this learning collaborative is to offer comprehensive and safe care through continuous value improvement and the adoption of a culture of stewardship.

Conflicts of interest

The authors declare no conflicts of interest.

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The Brazilian Collaborative on Antimicrobial Stewardship.

REFERENCES

1. Mendelson M, Røttingen JA, Gopinathan U, et al. Maximising access to achieve appropriate human antimicrobial use in low-income and middle-income countries. *Lancet*. 2016;387:188–98.
2. Quirós RE, Bardossy AC, Angeleri P, et al. PROA-LATAM Project Group. Antimicrobial stewardship programs in adult intensive care units in Latin America: implementation, assessments, and impact on outcomes. *Infect Control Hosp Epidemiol*. 2022;43:181–90.
3. Telles JP, Morales Jr R, Yamada CH, et al. Optimization of antimicrobial stewardship programs using therapeutic drug monitoring and pharmacokinetics-pharmacodynamics protocols: a cost-benefit review. *Ther Drug Monit*. 2023;45:200–8.
4. Menezes RM, Gonçalves MRS, Costa MMM, et al. Antimicrobial Stewardship Programmes in Brazil: introductory analysis. *Res, Soc Dev*. 2022;11(7):e51011729444.
5. European Commission. Defining value in “value based healthcare”. Report of the Expert Panel on effective ways of investing in Health (EXPH). Luxembourg: Publications Office of the European Union, 2019. [cited 30 October 2019]. Available at: https://ec.europa.eu/health/publications/defining-value-value-based-healthcare-0_en. [Accessed on 10 June 2023].