Title: Evidence Brief for Policy: Prevention and Control of Antimicrobial Resistance

Introduction: Antimicrobial resistance is a worldwide problem that endangers health security, requiring intersectoral actions to address it. In health sector, the inappropriate use of antimicrobials contributes to aggravate the problem, including prescribing errors, prolonged surgical prophylaxis and treatment time.

Method: A rapid systematic literature review, based on the SUPPORT tools methodology, was conducted to identify options for addressing the problem, barriers and facilitators for the implementation of these options. Searches for the options were performed in November / December 2018 in fourteen databases. Searches for implementation were performed in June / August 2019, in three databases.

Results: Forty-six systematic reviews resulted in a list of three policy options: 1. Antimicrobial Stewardship Programs (ASP); 2. Strategies for making optimal use of antimicrobials (Antimicrobial Stewardship - AS); 3. Single and multimodal interventions not called ASP / AS. All options involve education strategies, electronic systems, biomarkers and antimicrobial management. The following barriers to implementation were identified: patient insecurity regarding therapeutic conduct; cultural differences of the multidisciplinary team; team work overload; lack of funding / planning. Some facilitators identified were: team involvement; doctor-user relationship; communication, education, knowledge and management support.

Conclusion: Three options may be useful for dealing with antimicrobial resistance. Implementing a set of interventions is usually more effective, but the decision depends on the context in which decision makers are inserted. It should be considered that systematic reviews summarize a variety of interventions, which makes it difficult to assert the effectiveness of single interventions. In addition, confidence in results can be improved with new high quality methodological research.

Key-words: Drug Resistance, Microbial; Evidence Brief for Policy; Antimicrobial Stewardship