THE IMPORTANCE OF A MULTIDISCIPLINARY APPROACH IN THE FIGHT AGAINST MDRO

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Introduction: The emergence of organisms resistant to multiple antibiotics (MDRO) is a major public health problem in the twenty-first century in all countries of the world. The emergence of MDRO limits the possibilities of adequate antimicrobial treatment of infections and increases morbidity, mortality and healthcare costs in healthcare institutions worldwide. Numerous studies indicate a significant association between the level of antibiotic consumption and the frequency of antibiotic resistance. According to data from the Center for Disease Control and Prevention (SDS) from 2019, 2.8 million infections and 32,000 deaths caused by pathogens resistant to antimicrobial drugs are registered every year. In addition, the World Health Organization (WHO) has approved guidelines for the monitoring and assessment of emerging antimicrobial resistance. The European Center for Disease Prevention and Control (ECDC) estimates that nearly 9 million nosocomial infections (or healthcare-associated infections) occur each year in European hospitals alone, with 1/3 of these infections caused by antimicrobial-resistant pathogens.

Objective: The objective of the paper is to point out the importance of a multidisciplinary approach in the fight against antimicrobial resistance.

Methodology: WHO Organization Antimicrobial Resistance Division https://www.who.int/antimicrobial-resistance/en/; CDC Training on Antibiotic Stewardship; Antimicrobial stewardship interventions: a practical guide (WHO Regional Office for Europe, 2021). We searched PubMed to identify eligible systematic reviews from 2015 to May 2023.

Results: Antimicrobial stewardship programs (ASP) are instrumental and crucial in the fight against antimicrobial resistance. ASP is effective in the fight against the growing resistance of pathogens to antimicrobial drugs. Due to the importance of the problem of resistance of pathogens to antimicrobial drugs, a multidisciplinary approach to solving the problem of AMR is necessary, in which doctors of various specialties participate (infectologist, anesthesiologist, surgeon, microbiologist, epidemiologist, clinical pharmacologist...). These activities are necessary for the purpose of reducing antimicrobial resistance, reducing healthcare-related infections and reducing treatment costs, with an emphasis on a multidisciplinary approach in solving this major global public health problem.

Conclusion: Approaches to the prevention and control of MDRO need to be adapted to the specific needs of each population and individual institution. Prevention and control of MDRO is a national priority - a priority that requires all health institutions and agencies to undertake appropriate activities. A multidisciplinary approach to solving the growing resistance to antimicrobial drugs is of great importance in solving this major global public health problem.

Keywords: MDRO, antimicrobial resistance, antibiotic management, multidisciplinary