



THE CHALLENGES AND SOLUTIONS ON ANTIMICROBIAL RESISTANCE

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Introduction. Antimicrobial resistance (AMR) is one of the most serious global public health threats. AMR is also listed as important scientific, health and economic challenges and in the absence of some urgent action to address specific diseases the world will face an alarming threat in the following years. Analyzed studies and World Health Organization reports showed that the use of broad-spectrum antimicrobials for treatment of invasive infections has resulted in an increase in AMR. The emergence and spread of bacteria resistance can be associated with many factors, but they always represent an evolution process: a response to selective pressure. As a consequence, the treatment of such infections is becoming increasingly difficult leading to treatment failures and increased mortality.

Antimicrobial stewardship programs (ASP) effectively suppose treatment for patients with bacterial infection, evidence and information to educate and support professionals and patients to reduce unnecessary use and minimize collateral damage.

Material and methods. The objective of the study was to carry out an analysis of the literature related antimicrobial resistance, antibiotic stewardship programs. The bibliographic search was made using internet search medical databases as Medline and Scopus, as well as through the other relevant. We review evidence of progress with these aims in Europe and nationally in Republic of Moldova.

Results. Excessive and inappropriate use of antimicrobial medicines and poor infection control practices has transformed AMR into a serious threat to public health worldwide. If trends continue, we would revert to on world where simple infections are no longer treatable. AMR is driven by the continued use of antimicrobials, and it is unlikely that the threat of resistance can be effectively mitigated by the discovery of new antimicrobials

Surveillance is a crucial factor in creating a path to reach the effects caused by resistance. The integration of the data regarding AMR is desperately needed not only at regional, national but also at global level. Antimicrobial stewardship promotes the judicious use of antimicrobials to limit the development of AMR.

In the hospital setting, are required infection control measures and ASP administered by multidisciplinary teams of experts such as infectious diseases physicians, clinical pharmacists, clinical microbiologists, etc. ASP support coordinated interventions designed to improve and measure the appropriate use of antimicrobials including selection, dosing, duration of therapy and route of administration.

Conclusions. Antimicrobial resistance is now recognized by the scientific community, the society at large and most policy-makers as an important problem to confront. Clinicians, microbiologists, pharmacists, researchers and the general public must share all the available data on antimicrobials, infections, therapy and information regarding public health threat of AMR.