

Golubinka BOSHEVSKA
Biljana CELEVSKA

STRATEGY FOR ANTIMICROBIAL RESISTANCE WITH ACTION PLAN 2017-2020

Introduction

Why do we need a strategy for AMR?

Antimicrobial resistance is the ability of microorganisms to resist the effects of one or more antimicrobial agents. The degree of AMR is constantly growing in national and in European and global terms, thus jeopardizing the ability to treat even simple infections. This global trend is due to several cumulative factors: frequent and excessive use of antimicrobial agents in human and veterinary medicine, insufficient pace of development of new antimicrobial drugs that could treat resistant bacteria, poor hygiene practices and insufficient preventive measures against infection.

The growth of AMR threatens the progress made in the past in the treatment of life-threatening diseases such as tuberculosis and pneumonia, as well as progress made in the treatment of cancer and HIV / AIDS where treatment with antibiotics is crucial. It also calls into question the progress achieved in surgical procedures such as organ

MD, PhD Golubinka Boshevska is the National Coordinator for AMR, Chief of the Laboratory of Virology and Molecular Diagnostics, Institute of Public Health of RM

Biljana Celevska is Assistant Head of the Sector for European Integration and International Cooperation, Ministry of Health

transplants, hip replacements and some gynecological surgeries that have become routine and relatively low risk if they are supported by an effective and reasonable antibiotic treatment. In addition, the resistant bacteria spread quickly among animals and thus constitute a reservoir of bacteria that can spread rapidly among humans and among animals. Infected animals, due to bacteria resistant are hard to treat, which causes animal suffering and economic loss.

In global terms, antimicrobial resistance poses a serious threat and an important social and economic challenge. The World Economic Forum has identified the AMR as a global risk and considered that its tackling is beyond the capability of any nation or organization to deal with it individually. The estimation is that AMR may result in 10 million deaths globally per year and cumulative costs the world economy more than 88 trillion euros by 2050.¹ In the past the problem of AMR received great political attention and importance within the European Union, G7,² G20,³ United Nations and other international organizations. In conclusion of the Council of 17 June 2016 for AMR, the European Union calls for enhanced activities against AMR, multisectoral approach, responsibility governments and new and comprehensive action plan for AMR-based on the “One Health” approach. It is necessary to provide health and veterinary sector to work together to ensure responsible use of antibiotics, to take preventive measures to limit the need for them to minimize the spread of infection. Essential is activity of academic researchers and industry, and involving the environmental sector on issues related to the presence of antibiotics in the environment. Thus, it is necessary for the Republic of Macedonia with a new strategy to control the AMR, to join the global efforts to deal with AMR.

What will change?

New Strategy - priorities and activities

The strategy will form the basis for the implementation of activities aimed at tackling the development and spread of AMR. It will highlight areas and measures to combat effectively to deal with this public health problem. The new strategy is a continuation of previous actions taken to control the AMR

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1. Review on AMR, Tackling Drug-Resistant Infections Globally: Final report and recommendations, iay 2016.
 2. https://www.g7germany.de/Content/EN/_Anlagen/G7/2015-06-08-g7-abschluss-eng_en.pdf?__blob=publicationFile&v=3.
 3. <http://www.g20.utoronto.ca/2016/160905-communique.html>

and continuation of activities in the health and veterinary sector.

Activities aimed at reducing the development and spread of antimicrobial resistance in the period until 2020 will include activities for achieving several specific objectives:

1. Improve awareness and understanding of antimicrobial resistance through effective communication, education and training of population health workers, veterinarians, politicians and other;
2. Reinforcing the monitoring of consumption of antibiotics and bacterial resistance to antibiotics in human and veterinary medicine;
3. Reducing the incidence of infection through effective sanitation, hygiene and preventive measures;
4. Optimization of the use of antibiotics in human and veterinary medicine;
5. Cooperation with institutions dealing with the problem of antibiotic resistance (ECDC, WHO and World organization for health of animals (OIE)).

The stated objectives are consistent with the activities foreseen in the plan of the European Centre for Disease Prevention and Disease Control (ECDC strategic multi-annual programme 2014-2020) and the World Health Organization (Global Action Plan on antimicrobial resistance, Sixty-eighth World Health Assembly / document WHA68 / 2015 / REC / 1, Annex 3) and the World Organisation for animal health (OIE), as well as the conclusions of the European Council on the next steps in the fight against AMR in the framework of the approach One health, adopted on 17 June 2016 (Council conclusions on the next steps under a One health approach to combat antimicrobial resistance).

Methodology / Process

Involvement of key sectors

Strategic directions for development of control activities of AMR in the country, contained in the Strategy are based on evidence of a global and European level, on the evidence available at the national level as well as on the assessment and prioritization of national challenges contained in the Strategy for Health 2020 and plan of Action on public health, under which they have to be properly addressed until 2020. The process for the preparation of a strategic framework and action plan started in 2016 at the initiative of the Expert Group for control of AMR. The basis of this process

complements and sequence of previously conducted activities in accordance with the National Strategy for control of AMR for the period 2012-2016.

In October-November 2016, meetings were held by the Multisectoral Committee for control of AMR,⁴ which started a process of preparing a strategy and action plan for control of AMR 2016-2020. During the preparation of the document several sectors were included (health, veterinary, education), thus ensuring “Health in All Policies” approach and will provide a multisectoral coverage and addressing the complex issues related to AMR.

Expected results

Expected results from the implementation of the activities will be determined by the Strategy and Action Plan:

- Employees in the health sector, as well as in the veterinary sector and production of food to have knowledge of concept “One health “ for antibiotics, antimicrobials agents and general hygiene, hygiene in health care facilities and on other methods of prevention and control of infections;
- Patients and animals breeders to have knowledge about the importance of proper use of antibiotics that are prescribed in the sense of dosage, interval and duration of therapy with antibiotics, as well as on possibility for application of symptomatic therapy;
- Increased cooperation between the different sectors in the preparation and distribution of earmarked prepared information for AMR hygiene and other preventive measures;
- Establishing a system for regular provision of data on consumption of antibiotics in human medicine as well as in veterinary medicine through development of software solutions and connection with existing data bases, and preparation of studies of prevalence that will give insight in reasons for prescribing of antibiotic, and will give directions for future activities;
- Establishing programs to optimize the use of antibiotics in each hospital, based on its specifics and given circumstances;

4 The Committee consists of representatives of Ministry of health, Institute of Public Health of RM, Agency for drugs and medical aids, Food and Veterinary Agency, University “Ss. Cyril and Methodius” Skopje (Medical faculty – Institute of microbiology and Pharmaceutical faculty), PHI Clinic for infectious diseases and febrile conditions and State Sanitary and Health Inspectorate.

- Strengthening laboratory capacity for detection and monitoring of AMR;
- Establishing in cooperation with the European and global networks that work on monitoring of AMR, such as the Global system for tracking of AMR of the WHO;
- Updating and revision of guidelines for treatment based on national data on resistance.

Next steps

Preparation of final version of the Strategy with Action Plan;
Public debate on the documents (through the websites of the Ministry of Health and the Institute of Public Health, events and workshops, etc.);
Adoption by the Government;
Implementation of activities based on established priority and dynamics.

Abstract

As recommended by the World Health Organization (WHO) and the European Centre for Disease Prevention and Control (ECDC), to control the spread of antimicrobial resistance (AMR), the Republic of Macedonia joined the global and European efforts for intersectoral addressing of the problem with AMR in 2008 and adopted the National strategy for control of antimicrobial resistance for the period 2012-2016 in 2011, aligned with the Global strategy to control antimicrobial resistance of World Health Organization (2001) and Recommendation of the Council of EU for the prudent use of antimicrobial agents in human medicine (2001). The new strategy with action plan for control of AMR for the period until 2020, builds on the previous strategy and aligns with the Global Action Plan of WHO for AMR (Global Action Plan on antimicrobial resistance, Sixty-eighth World Health Assembly/document WHA68/2015/REC/ 1, Annex 3), with the multiannual program of the European Centre for disease control (ECDC strategic multi-annual programme 2014-2020), as well as with the conclusions of the European Council on the next steps in the fight against AMR within One Health approach to health, adopted on 17 June 2016 (Council conclusions on the next steps under a One health approach to combat antimicrobial resistance). Furthermore, this document is in accordance with the National Strategy for Health 2020 and the Strategic Framework and Action Plan for Public Health of the Republic of Macedonia, adopted by the Government in December 2016, as well as with the Action Plan on sustainable development goals, namely- SDG 3 “to provide healthy life and promote well-being for everyone, at all ages. “

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10. European Commission Action Plan Against the rising threats from Antimicrobial Resistance: Road Map (updated 16/11/2015_)
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12. G20 Leaders' Communiqué: Hangzhou Summit, Hangzhou, September 5, 2016