RESOLUTION

First International Congress
«Rational use of antibiotics. Antibiotic resistance STOP!»

(Kiev, November 15-16, 2018)

The introduction of antibiotics had become a revolution in the fight against infectious diseases in past century. Now antibiotics are widely used in treatment and prevention of infectious diseases and their complications, during surgical interventions and manipulations, chemotherapy, interventional cardiology, organ transplantation, obstetrics, neonatology, pediatrics.

However, nowadays, anybody at any age in any country can be infected with antibiotic resistant infection (World Health Organization). The spread of antibacterial drugs resistance has become a global threat to humanity, it leads to reduction of the effectiveness of treatment of life-threatening infectious diseases; increasing the frequency and duration of hospitalization, health care costs, and mortality rate of the patients.

In recent years, no antibacterial drug of the new class has been introduced for the treatment of infections, particularly caused by gram-negative pathogens. Development of new antibiotics remains little attractive for investment due to the complexity of scientific research, besides the timing of effective use of new antibiotics is reduced because of rapid development of resistance of microorganisms to them.

Thus, the quick spread of antibiotic resistance (ABR) and absence of new effective antibacterial drugs determine the national significance of this problem, which requires urgent action.

On 15-16 November, 2018, the first International Congress "Rational use of antibiotics. Antibiotic resistance STOP! » under the patronage of the Ministry of Health of Ukraine, the British Society for Antimicrobial Chemotherapy, and the public organization «Ukrainian Association for Appropriate Use of Antibiotics» was held in Kyiv. More than 700 participants of the Congress had listened to 60 reports, participated in 6 master classes, which addressed to the issues of ABR in management of medicine and veterinary, industry, etc.
The speeches mentioned the imperfection of the infection control system in Ukraine; inaccessibility of modern laboratory diagnostic methods of ABR, particularly, medical tools for rapid diagnosis in vitro; discrepancy between knowledge of the biological mechanisms of antibiotics’ action and clinical practice; lack of educational programs on ABR issues and qualified personnel in microbiological diagnostics; insufficiency and inappropriate use of financial resources. Much attention was paid to the prospective scientific research, training of scientific and pedagogical personnel.

**Congress participants recognized the need for large-scale and ongoing ABR management activities and identified key strategic purposes:**

- to achieve the understanding of ABR problems in community;
- rational use of the existing antimicrobial drugs in human and animal health care;
- to contribute in the development of new methods of therapy and laboratory diagnostics of ABR.

Through wide-ranging discussions, the main principles of ABR management have been formulated:

- Collaboration: interdisciplinary (between different specialists in the field of medicine); interdepartmental (clinical and veterinary medicine, etc.); cross-sectoral (political parties, local authorities, industry, financial bodies, institutions of higher education, research institutions, non-governmental organizations, professional associations, insurance companies, etc. should work together to strengthen ABR control); international (joint epidemiological and other scientific research, clinical trials, etc.).
- Recognition of microbiological diagnostics and testing of sensitivity of isolated pathogens to antimicrobial drugs is an integral part of antimicrobial stewardship.

**Important areas of good practice have been recognized:**

1) prevention of infections (to reduce the need for antibiotics):
- organization of effective programs and measures of infection control in health facilities in accordance with international standards;
- further implementation of vaccination programs for the prevention of bacterial infections;
- vaccination against viral infections, etc.;

2) the introduction of new diagnostic methods into the practice of health care through their inclusion in the standards and market incentives for their application;

3) further development of pharmacovigilance, in particular, the optimization of the process of registration of ADB-induced cases of infections, including those related to the provision of medical care of clinical and epidemiological significance;

4) improvement of local protocols for the prescription of antibiotics to ensure:
- exclusion of antibiotics in the absence of indications;
- rules for the selection of biological material samples from patients for microbiological examination (microscopy, culture research), determination of the sensitivity of the isolated agent to antibacterial drugs, following the requirements of the rules for the collection and transport of biomaterials;
- implementation of the EUCAST regulations on the determination of antibiotic sensitivity and interpretation of results for the use of narrow-spectrum drugs in health care facilities;
- surveillance of ABR using the electronic database (WHONET);
- adequate timing of beginning, duration of antimicrobial therapy;
- early access to new effective antibacterial drugs for patients with infectious diseases in the polyresistance cases;
- use of the pharmacokinetic/pharmacodynamic model of antibiotic therapy, including for single-dose surgical prophylaxis and preventive antibiotic therapy;

5) strict control over the delivery of antibiotics in prescription pharmacies;
6) therapeutic monitoring of the effectiveness of antibacterial drugs;
7) use of generic drugs only on the basis of their bioequivalence.

**Participants of the Congress have decided to address:**
1) to the Cabinet of Ministers of Ukraine with petition:

- to support prepared by the Ministry of Health of Ukraine the project of order “On approval of the National Action Plan to Combat Antimicrobial Resistance” and urgent its implementation; to create a state fund of financing on a competitive basis of innovative development;

- to create the state fund of financing on a competitive basis of innovative developments, including young scientists, in order to support scientific and educational, including joint, interdepartmental projects of ABR management;

- to stimulate the investment in development and research of medical products for express-diagnostics in vitro, and pilot models of introduction to the market the new antibiotics, do not transfer to the questionnaire, and they don’t know how to understand new antibiotics, that do not foresee the relationship between earnings and sales

2) to the Ministry of Health of Ukraine, the Ministry of Agrarian Policy and Food of Ukraine, the Ministry of Information Policy of Ukraine, the National Academy of Medical Sciences of Ukraine, the National Academy of Agrarian Sciences of Ukraine with the request:

- to strengthen the information and awareness campaign in order to deep understanding of the role of antibiotics in community, their value for health care, and critical need for proper use;

- to provide the creation of manuals in various formats for certain groups (students of institutions of higher medical, pharmaceutical and veterinary education, medical staff, patients, etc.) on ABR management issues;

- to intensify the training of health professionals and stakeholders in ABR fighting using modern educational, including on-line resources (lectures, seminars, workshops, training laboratory centers, etc.).

3) to the Ministry of Health of Ukraine:

- to develop the National ABR management guidelines, national program and algorithms for monitoring of the spread strains resistant to the antibacterial drugs;
- to create the National reference laboratory for the study of the sensitivity of microorganisms to antimicrobial drugs and provide it with modern equipment and consumables;

- to provide laboratory units of health facilities with modern laboratory equipments, which allow to identify the patogens in the shortest possible time and its sensitivity to antibacterials, and uninterrupted procision of them with consumable materials of guaranteed quality;

- to create the repository of microbiological data from different geographical regions of Ukraine, health care facilities, etc.;

- to provide regular monitoring of good practices of health professionals (doctors, epidemiologists, microbiologists, pharmacologists, pharmacists) on the rational use of antibiotics;

- to strengthen scientific research: fundamental for determining the mechanisms of ABR formation; applied to identify new ABR markers, assessment of the effectiveness and safety of antibacterial, including combined, therapy, etc.

4) to the Ukrainian Association for Appropriate Use of Antibiotics, the National Medical Council of Ukraine:

- to continue the activities of uniting efforts of scientists and specialists in various branches of human, veterinary medicine, etc., providing a wide exchange of new information on ABR issues based on evidence-based medicine, using international approaches in the definition and interpretation of sensitivity results.