

# Super-infections: does the humankind have weapons to fight?

Feshchenko Y .I., Gumeniuk M. I.

SO "National Institute of Phthysiology and Pulmonology named after F.G. Yanovsky NAMS of Ukraine"

**INTRODUCTION.** The resistance of microorganisms to anti-infective drugs is recognized by WHO as a global threat to humankind: more than 700,000 people die every year from infectious diseases caused by drug-resistant agents, and this amount is significantly underestimated due to the low level of diagnosis. In the absence of effective steps that can reduce the rate of formation of resistance, by 2050 this figure will increase to 10 million people.

**MATERIALS AND METHODS.** Retrospective analysis of literature sources - recommendations, resolutions of the WHO and the UN, scientific articles, analytical reports and statistical data.

**RESULTS.** An overview of the data showed that the resistance of microorganisms to anti-infective drugs is a natural process, but the rate of its formation to existing medicines is threatening and exceeds the possibility of introducing new drugs, which poses a threat to all humanity, not only in the form of a rapid increase in the mortality rate from resistant infections, but also significantly limits the possibility to apply high-tech treatment methods that require anti-infective support.

**CONCLUSIONS.** Social awareness, motivation, commitment to responsible action, strict rules for the use of anti-infective agents and control of their turnover, the introduction of best management practices and the development of behavioral changes in all industry sectors, the use of modern technology that will help patients (for example, to timely recall drugs) can become important tools to overcome the burden of super-infections in Ukraine and in the world.

**KEY WORDS:** super-infection, resistance, anti-infective drugs.