

INDICATORS OF QUALITY OF PROBIOTIC PREPARATIONS

Bogatko A. A., Kalyuzhnaya O. S., Strelnikov L. S., Almakaev M.S.

National University of Pharmacy, Kharkiv, Ukraine

bogatcko.andrej@yandex.ru

Introduction. At the present time taking into account new concepts for prevention and therapy a healthy intestinal flora is given of special significance. The consumption of fermented dairy products and proceeds of probiotic strains of bacteria provides a number of useful properties for the human body, which is confirmed by the results of numerous medical researches. They include not only antagonistic activity against pathogenic microorganisms; probiotics are involved in the formulation of important vitamins, amino acids and some hormones, which indicate a positive effect on physiological, biochemical, immune response, and balance regulation of fat metabolism. Despite the fairly wide range of imported and domestic drugs, actual problem is the increase of production efficiency of probiotics, which is related to improved methods for their preparation and harmonization of methodological approaches for their control.

Results and discussion. Research related to optimizing the control of probiotics should help to improve efficiency, adaptation to the conditions of mass production of drugs, reducing the complexity, duration and material costs.

The number of immunobiological products, registered in Ukraine, is growing every year. The most common domestic probiotic preparations are presented such bacteria as: *Lactobacillus*, *Bifidobacterium*, *Escherichia*, *Aerococcuses* (Bifidumbacterin, Lactobacterin, Bifikol and A-bacterin).

Requirements for the quality control of such preparations are high quite, because probiotics do not always have therapeutic action. They can die in the acidic environment of the stomach under the influence of stomach acid, antibiotics and antimicrobials, and without getting into the intestine. It is known that the effectiveness of any probiotic is determined by the characteristics of the bacterial culture, which is consists of probiotic.

Conclusions. One of the basic requirements for probiotic bacteria are: resistance to aggressive environments gastrointestinal tract; the lack of conditional pathogenicity; sufficient antagonistic activity against pathogenic microorganisms; high biosynthetic activity (synthesis of organic acids, vitamins, polysaccharides and bacteriocins); rapid reactivation of the biomass; immunomodulating properties; the high growth rate of population; stimulating effect on the representatives of normoflora; natural resistance to antibiotics. Compliance of the probiotics to the quality indicators ensures their effectiveness during the action on the human body.