

## ANALYSIS OF QUANTITATIVE AND QUALITATIVE COMPOSITION OF SOME PROBIOTICS AS DEPENDENT ON THE PRODUCTION OF THE PREPARATION

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**Introduction.** Drug therapy with antibiotics of new generations, poor-quality food containing antibiotic residues, decreased immunity, adverse effect of environmental factors - disrupt the balance of microflora, which can lead to dysbiosis. To colonize the intestine, to correct the composition with a useful microflora is possible with the help of probiotics - a concentrate of "useful" microorganisms. But, passing through the acidic environment of the stomach, many bacteria in this case die, survive about 1-10% of bacteria. The more bacteria we deliver to the intestines, the faster the correction of dysbiosis will take place.

**Aim.** The purpose of our work was - the analysis of the quantitative and qualitative composition of some probiotics, depending on the form of the drug produced in Ukraine and used by consumers to correct dysbiosis.

**Materials and methods.** The analysis of the results was carried out on the basis of data obtained by the Center of Expertise "Test" (Ukraine) according to 2011, 2016, 2017.

During the study, the number of microorganisms was determined twice. Primarily - in the original preparation, the second time - after a two-hour exposure in gastric juice, bought at the pharmacy, after imitating the stay of probiotics in the stomach. Forms of study drugs: capsules, sachets, drops, tablets, bottles. For the study, preparations were taken from different manufacturers: «Bifiform», «Lactovit forte», «Simbiter», «Entererozermina», «Lactomun», «Bifidumbacterin-Biopharma», «Lactonum Ekologic Panda», «Latsium», «Lineks», «Lactiale».

In addition, the test involved starter for the domestic production of fermented milk products - "Vivo Simbilakt "and" Good Food Symbiotic ".

**Results and discussion.** After aging in gastric juice, the drugs showed themselves in different ways. After staying in an acidic environment, such drugs as «Lactovit forte», «Simbiter» and «Entererozermina» have not lost their therapeutic function. As a result of the experiment, the number of individual microorganisms in these preparations decreased by 1-2 orders and remained on indicators sufficient for treatment.

Drugs have lost their therapeutic functions: «Bifidumbacterin-Biopharma», «Lactonum Ekologic Panda», «Latsium», «Lineks», «Lactiale. In them, the indicator for individual microorganisms fell by 3-6 orders of magnitude. Hence, after exposure to gastric juice in the intestine falls into a thousand or a million times less microorganisms than was promised by the producers. Survivors of useful microorganisms are not enough to treat these drugs. Slightly decreased the number of microorganisms after testing the gastric juice in the sourdough of Vivo, which means that it can be expected to have a good effect.

**Conclusions.** Almost all tested drugs lose their effectiveness in gastric juice - 100-1000 times! The form of the preparation significantly affects the viability of the microorganisms included in the composition of probiotics. The capsule forms of probiotics are most effective, but if the manufacturer has invested money in an acid-fast capsule («Bifiform», «Lactovit»). Due to the high resistance to physical and chemical factors, the "Entererozermina" preparation containing the spores of *Bacillus clausii* showed itself well. The therapeutic effect is also observed with a significant increase in the number of bacteria entering the formulation.