Aim. Determination of the possibility of developing a liquid dosage form for external use with a combined effect for the treatment of surface lesions of the skin and the mucous membrane.

Materials and methods. Objects of research - known active pharmaceutical substances (derived from the group of triazoles, vitamin B, aromatic carboxylic acid). Physical, pharmaceutical, biological and statistical methods of research were used to solve the problems.

Results and discussion. Liquid forms are widely used in pharmacy, due to a number of advantages over other forms of medicine, including the variety of methods of prescribing, reducing the irritating properties some medicinal substances, the simplicity and ease of use in different categories of patients, the ability to disguise unpleasant taste.

However, they also have some disadvantages: the solute are poorly stored, since the substances in the dissolved form are more easily subjected to hydrolysis and oxidation processes than dry; solute are a favorable environment for the development of microorganisms, hence a short shelf life; less convenient for transportation, require more time for preparation of a medicine and special packaging; behind the accuracy of dosing, liquid drugs are inferior to solid dosage forms.

In its physico-chemical nature, all liquid forms are completely free-ranging dispersed systems, where medicinal substances (i.e., dispersed phase) are evenly distributed in a liquid dispersion medium. Today, there is a steady trend towards the use of carriers with a high content of the water phase.

Found that the main active substances are soluble in water (fluconazole>1:100, vitamin B>1:80, aromatic carboxylic acid>1:350), so the dispersion medium of the liquid dosage form may be water purified. Water purified meets most of the requirements for solvents of liquid drugs. It is chemically and pharmacologically indifferent, tasteless and odorless, relatively cheap.

Conclusions. Previous screening of biological activity and obtained data on the physical and chemical properties of active components is a prerequisite for the development of a liquid dosage form for external use.

STUDY OF ANTIMICROBIAL ACTIVITY OF LOTIONS BASED ON ALOE

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Introduction. The use of products, which consist of natural ingredients, namely substances of plant origin, today is of current interest.

Aim. Therefore, it is reasonable to create therapeutic and cosmetic products based on aloe, combined with other active components to enhance its antimicrobial, regenerating and other properties.

Materials and methods. We have prepared samples of lotions, in which the aloe extract is combined with antimicrobial agents, such as the "Sumerian Silver" and the tincture of calendula. The antimicrobial activity of the samples was studied in vitro by diffusion into agar ("wells" method).

As test cultures, pure cultures from the American Collection of Cultures (ATCC) Gram-positive bacteria Staphylococcus aureus ATCC 25293 and two kinds of staphylococcus obtained from washings from the skin of volunteers were used. During conducting experiments, one-day suspensions of bacterial microorganisms were used in physiological saline solution. Microbial loading was 107 colony-forming units of microorganisms in 1 ml of nutrient medium (CFU / ml).

Also, the antimicrobial activity of all components of the lotion: an aloe vera extract, a calendula tincture, a solution of nanoparticles of copper and silver ("Sumerian silver") was tested. As a means of comparison, a aloe-based tonic was studied, which was purchased at the pharmacy.

Results and discussion. The obtained data demonstrate that from the investigated samples, the most effective is a lotion with an aloe vera liquid extract and copper and silver nanoparticles. It showed greater antimicrobial activity in relation to bacterial cultures of Staphylococcus aureus (a museum strain), S. aureus and S. epidermidis (from skin washing). From the lotion components, a significant antimicrobial activity against the bacterial culture of Staphylococcus aureus (a museum strain) showed a 25% solution of

the “Sumerian silver”, and the effectiveness of the calendula tincture was not detected. The aloe-based tonic showed a moderate antimicrobial activity in relation to this culture.

Conclusions. Thus, according to the results of the study of the antimicrobial activity of the lotions and the used components, it can be concluded that the aloe extract based lotion with the addition of nanoparticles of copper and silver not only positively affects the skin, moisturizes, regenerates, soothes and softly cleanses it, and also shows a pronounced antimicrobial effect. These results can be used in the development of new effective therapeutic and prophylactic agents for skin care.

ANALIZI TA RISIK OILS OF OXID-USE PRODUCTS

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Introduction. The dairy industry is a branch of the food industry, which unites enterprises producing various dairy products. The industry includes enterprises producing animal oil, whole milk products, canned milk, dried milk, cheese, cheeses, ice cream, casein and other dairy products. The dairy industry of Ukraine is a large industrial industry, one of the leading in the national economy. Dairy products occupy an important place in the consumption of the population of the country. To date, in Ukraine there are about 350 milk processing enterprises. One of the largest suppliers of dairy products is the Kharkiv Dairy Plant (a branch of PJSC "Wimm-Bill-Dann Ukraine", Kharkiv). Ryazhanka is a traditional national dairy product - a drink that is obtained from cow's milk by lactic fermentation.

Aim. The large volume of products entering into sales results in strict criteria for evaluating its quality and safety. That is why the latest methods of researching and evaluating products on physico-chemical, microbiological, and safety indicators are being implemented and practiced. In 2008, at the enterprises of PJSC "Wimm-Bill-Dann Ukraine" the Quality and Safety Management System was established, based on the requirements of the international standard ISO 9001: 2008, and in March 2010 the certificate was issued to CMCIB for ISO 22000: 2005. In mid-2010, the Kharkiv Dairy Plant was certified for the Food Safety Management System to meet the requirements of DSTU ISO 22000: 2007, which complies with the international standard ISO 22000: 2005.

Materials and methods. The objects of the study were selected sour-milk products, namely, bryozhans of 2.5% of fat content: Ryazhanka TM "Romol" produced by PJSC "Wimm-Bill-Dann Ukraine", Kharkiv; Brasserie TM "Fanny" produced by "Lactalis-Ukraine", Kiev; Brasserie TM "Milky World", Poltava; briquettes of TM "Dobryana" produced by "Milkiland-Ukraine", Kyiv.

The research on the quality of various samples of ryazhenka was carried out at the Kharkiv Dairy Plant (a branch of WIMD-Doll Ukraine, Kharkiv), which operates on the principles of HACCP and ISO 22000 and the Department of Biotechnology. The main objective was to make microbiological studies of our samples and draw conclusions about compliance with modern requirements.

Results and discussion. According to microbiological indicators, all samples correspond to the norm at the beginning of the shelf life, but at the end of the shelf life some samples do not meet the norm: in Ryazhanka Dobryana, the growth of the bacteria of the colon gland was noted, and in the product Milkworld - a staphylococcus aureus.

Conclusions. The negative results obtained may indicate non-compliance with sanitary or technological requirements in the production or storage conditions of products in the trading network, which more than once confirms the need for monitoring and control of critical points and risks and the introduction into production of quality control systems.