Materials and methods. The physicochemical and technological properties of choline alfoscerate were studied to determine the type and amount of auxiliary ingredients in the tablets. Various formulations of ingredients were tested in various ratios: microcrystalline cellulose, calcium phosphate dibasic anhydrous, silicon dioxide colloidal anhydrous, Plasdone S-630, magnesium stearate, sodium starch glycolate, pregelatinized starch, talc, sodium stearyl fumarate, Neusilin etc. The rational composition of tablets has been found based on the studing physicochemical and technological characteristics of the tablets masses.

Results and discussion. Choline alfoscerate is a hygroscopic substance. It absorbs moisture, turning into a thick liquid when the relative humidity of the air above 35 %. Choline alfoscerate has a low bulk density (0.34±0.06 g/ml) and a low flowability (1.76±0.14 g/sec) due to the anisometric shape of particles. This active pharmaceutical ingredient is characterized by a satisfactory compressibility, but also adhesion to the surface of the press tool. The analysis of these data has been showed the introduction of moisture regulators, glidents, ingredients to improve compressibility of the substance and also anti-adherents require in the tablets.

The technology of choline alfoscerate tablets consists of stages: grinding and sieving the main components, blending, obtaining a humidifier, obtaining wet granules and drying, dusting, compression, film coating of the tablets, and packaging.

Conclusions. The obtained film coated tablets of choline alfoscerate 400 mg satisfy the requirements of the State Pharmacopoeia of Ukraine according to all indicators.

RESEARCHES ON THE CHOICE OF PRESERVING AGENT FOR ORAL SUSPENSION WITH SILICON DIOXIDE

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Introduction. One of the main conditions for the development of medicines is to ensure their minimum microbial contamination. As you know, all medicines from a microbiological point of view are divided into two groups: sterile (injections, ophthalmic) and non-sterile (syrups, aqueous suspensions, infusions, emulsions). It should be noted that the main source of microbial contamination of medicinal forms is the raw material, including auxiliary substances, especially of natural origin, which are used in significant amounts as flavors and thickeners. Some auxiliary substances can be as a contamination factor (sucrose, sodium alginate, gelatose). Water, as a solvent, is also a good environment for the development of microorganisms. The most common way to reduce the microbial contamination of dosage forms is the introduction of preserving agents into their composition. A preservative must answer such requirements: to have a wide spectrum of action; to be effective against microorganisms that takes place in this case; to influence on toxin-forming microorganisms and to slow their formation; to remain in medicine during all expiration date; to be simple, not expensive and not change organoleptic properties of medicine; to be licensed for application in pharmacy; to be in compliance with national and international standards and requirements.

Aim. The aim of our work was a comparative researches of the antimicrobial activity of preserving agents for the oral suspension with silicon dioxide.

Materials and methods. The introduction of preservative in the composition of the oral suspension is caused by the appearance of mold while storage at the room temperature. Sorbic acid, nipagin, nipazol and benzoic acid are chosen as preservatives. They are widely used for this purpose in the pharmaceutical industry. The antimicrobial activity of preservatives included in the suspension in different concentrations was determined in relation to testing cultures of microorganisms *E.Coli*, *S.aureus*, *P.aeruginosa* and *Candida albicans*.

Results and discussion. According to the results of microbiological researches, sorbic acid was selected as a preserving agent in an amount of 0.1% after 24 hours ensured the complete absence of microbial growth in the medicine and did not affect the sorption activity of the suspension.

Conclusions. By microbiological researches the optimal concentration of preserving agent was selected. It ensures the microbiological purity of the suspension with silicon dioxide for the treatment of intestinal diseases.

THE DEVELOPMENT OF EXTEMPORANEOUS TOPICAL COOLING CREAM FOR THE TREATMENT OF PHOTODERMATOSIS

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Introduction. Excessive exposure to the sun is the cause of the development of many types of photodermatosis, the frequency of which increases with each passing year. Treatment of this skin pathology should be complex and include both the use of oral medicines, for example, of antihistamine action, and the use of various soft dosage forms for local therapy of the affected skin.

The **aim** of this work is to develop an extemporaneous topical cooling cream for the treatment of photodermatosis based on coconut oil.

Materials and methods. As the objects of study were used: coconut oil, white beeswax, hydrophilic solvents, various emulsifiers and stabilizers. Organoleptic, physical-chemical and microbiological properties of model cooling cream's samples were determined by the methods of State Pharmacopoeia of Ukraine.

Results and discussion. As an active pharmaceutical ingredient and hydrophobic phase of cooling cream coconut oil has been chosen. Taking into account the presence of the antibacterial properties of coconut oil, we carried out microbiological studies with the aim of choosing its optimal concentration in the composition of the studied cream. The most optimal is the concentration of coconut oil 57.5%. The choice of emulsifier was done according to the study of the density, spreadability, colloidal and thermal stability of the model cream's samples. As an optimal emulsifier polysorbate-80 in the concentration 5% has been chosen. Considering all experimental data, we have conducted research on the development of rational technology of extemporaneous topical cooling cream for the treatment of photodermatitis. To improve the stability of the cream were added white beeswax and emulsifier. Thanks to these components, it became possible to store the cream for more than 10 days. To correct the odor, rose oil is added to the cream, which rarely causes allergic reactions. The cream obtained according to the proposed technology is homogeneous, has specific pleasant odor, while color, pH 5.5-6.0.

Conclusions. The composition of extemporaneous topical cooling cream was experimentally substantiated. Based on microbiological, technological and physical-chemical researches rational technology of the proposed cooling cream was developed. The stability of the developed medicine during storage (3 months at two temperature regimens of 8-15°C and 15-25°C) was examined.

ACTUALITY OF THE DEVELOPMENT OF EXTEMPORAL DRUGS FOR THE TREATMENT OF XERODERMA

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Introduction. Changing temperature is one of the main factors on which the health and well-being of a person affects. In the human body, oxidative reactions associated with the formation of heat occur continuously. At the same time, the heat transfer to the environment also continuously occurs. The combination of processes that determine the heat exchange between the body and the environment, resulting in a body temperature maintained at approximately the same level, is called thermoregulation.