

MINISTRY OF PUBLIC HEALTH OF UKRAINE  
NATIONAL UNIVERSITY OF PHARMACY

**TOPICAL ISSUES OF NEW  
DRUGS DEVELOPMENT**

Abstracts of XXV International Scientific  
And Practical Conference  
Of Young Scientists And Student

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For a wide audience of scientists and pharmaceutaical and medicinal employees.

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## BIOPHARMACEUTICAL STUDIES IN DEVELOPMENT OF OINTMENT FOR PYODERMATOSES TREATMENT

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**Introduction.** Today, the problem of squamous skin diseases has not lost its relevance. The prevalence of pyoderma reaches a high level, accounting for 25-60% of the total number of applications with dermatoses. Pioderma leads to loss of work capacity, cosmetic and psychological problems, which is why they are one of the leaders among the diseases of the dermatovenereological profile.

In the treatment of pyoderma, a special place is taken by preparations of plant origin, which are easier to digest by the body, provide balance and complexity of action and minimize the number of allergic and adverse reactions.

Based on literary sources, we have substantiated the choice of natural active pharmaceutical ingredients - dry extracts of aloe vera and oak for the development of ointment for pyoderma treatment. The chosen combination of active substances will provide antimicrobial, antifungal, anti-inflammatory and drying properties, which will promote rapid skin cleansing and healing of purulent wounds.

The **aim** of the work is the choice of the optimal ointment composition for the creation of a semisolid dosage form based on dry extracts of aloe vera and oak for the treatment of pyoderma.

**Materials and methods.** To select the optimal ointment basis, 3 model samples were prepared using different carriers: hydrophilic, emulsion type o / w and w / o, which included 2 g of each of the dry extracts. The criterion for evaluating the samples was the speed and degree of release of active substances. The determination was carried out by direct diffusion in 2% agar gel containing a solution of iron (III) chloride as an indicator. The degree of release of the sum of active substances was estimated by the diameter of the colored zone.

**Results and discussion.** The results have shown that the most active substance release was provided by oil / water emulsion base (the coloring zone was 13 mm), a smaller coloring zone had the water / oil type emulsion base (8 mm) and the lowest release was observed from the hydrophilic base (5 mm).

**Conclusions.** Thus, on the basis of conducted biopharmaceutical studies, an optimal ointment composition of type oil / water was selected which contains: hydrophilic non-aqueous solvents (polyethylene oxide-400 -10,0 and propylene glycol-10.0), corn oil - 20,0, Emulsifier №1 - 8.0 and water purified to 100.0.

## DEVELOPMENT OF COMPOSITION AND TECHNOLOGY OF TABLETS BASED ON MEDICINAL PLANTS FOR TREATMENT AND PREVENTION UROLITHIASIS

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**Introduction.** The problem of urolithiasis remains valid throughout the world. The problem of urolithiasis remains relevant worldwide, due to the high prevalence among the population, the severity and duration of the course of the disease and its complications, and the high rate of relapse of stone formation. The growth of the morbidity of the population is associated with changes in social and living conditions (stress, hypodynamia), environmental factors, quality of food, drinking water and other factors. The incidence of the disease has a tendency to increase, which makes the problem of urolithiasis even more relevant. There is a tendency to increase this morbidity of the population of Ukraine in all age groups.

Urolithiasis occupies the second place in the structure of the disease for kidney and urinary tract diseases, and the fourth one - among the causes of disability due to urological pathology. Urolithiasis occurs on all continents and in all countries with a frequency of 10-30 cases per 1000 adult population and is 30-40% of all urological diseases. There is currently no single concept for the etiopathogenesis of urolithiasis,

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