

# DEVELOPMENT OF DERMATOLOGICAL OINTMENT'S TECHNOLOGY FOR THE TREATMENT OF ALLERGIC DERMATITIS COMPLICATED WITH FUNGAL INFECTION

Levchenko V. S.

Scientific supervisor: associate prof. Rukhmakova O. A.

National University of Pharmacy, Kharkiv, Ukraine

rukhmakovaolga@gmail.com

**Introduction.** Allergic skin diseases are widely prevalent disorders in the world and in the last decade have attracted increasing attention of doctors. In Ukraine, on all kinds of allergic dermatitis suffers 40 % of adults and children.

Today at the pharmaceutical market of Ukraine there are many industrial produced ointments for the treatment of allergic dermatitis complicated with fungal infection with different compositions and mechanisms of action. Preferably, these medicines are mono-medicines based on synthetic substances. As for the extemporaneous ointments, the most of them are represented by medicines with relatively narrow focus of pharmacological action that is why diversification of extemporaneous medicines is important by creating a new combined soft dosage form with integrated antiallergic and antifungal action.

**The aim** of our work was to develop extemporaneous ointment for the treatment of allergic dermatitis complicated with fungal infection.

**Materials and methods.** After examining the pharmacological properties of medicinal plants and synthetic substances used for the treatment of allergic dermatitis complicated with fungal infection, as active ingredients for extemporaneous ointment for the treatment of this disease, we have chosen dry extract of licorice root, essential oil of lavender and terbinafine hydrochloride.

Considering all experimental data, physical and chemical properties of active substances, namely their solubility (dry extract of licorice root injected into the ointment as an aqueous solution, essential oil of lavender as an oil solution in corn oil and terbinafine hydrochloride as a solution in propylene glycol), we have conducted research on the development of rational technology of extemporaneous ointment.

**Results and discussion.** The ointment obtained by the developed technology has uniform consistency with a specific pleasant smell, light-brown color. Study of colloidal and thermal stability proved the stability of proposed system.

Also, we conducted study of developed medicine's stability during storage. Designed ointment retains its properties during 5 months at two storage temperatures.

**Conclusions.** Thus, on the basis of the research we have developed technology of extemporaneous ointment for the treatment of allergic dermatitis complicated with fungal infection.