

in 20–25 % of boys during puberty and in young people aged 19–20 years, the next peak incidence occurs at the age of 50. The disease often occurs in patients with weakened immunity.

**Aim.** To conduct an analysis of medicinal products of the pharmaceutical market of Ukraine and, based on the knowledge gained, to develop the composition of a new medicinal product in the form of a mask-balm for the treatment of seborrheic dermatitis of the scalp. To develop a methodology scheme for the development of a soft dosage form for the treatment of seborrheic dermatitis of the scalp.

**Materials and methods.** Active pharmaceutical ingredients were chosen as research objects in the development of a soft dosage form, namely: zinc pyrithione, which is a fungicidal agent, has a bacteriostatic effect, is highly active against yeast-like fungi, and is able to eliminate superficial skin irritation; azelaic acid, which has anti-inflammatory, antibacterial and keratolytic effects. Reduces the fraction of free fatty acids in the surface lipids of the skin; glycolic acid, which improves the condition of the epidermis, evens out the relief of the skin, narrows the pores, eliminates or makes epidermal wrinkles almost invisible, prevents clogging of the sebaceous ducts with horny plugs; lactic acid, which has a keratolytic effect, moisturizes and deeply penetrates the skin, normalizes the epithelization process, participates in the synthesis of collagen fibers.

**Research results.** We conducted a marketing analysis of pharmaceuticals registered in Ukraine for the treatment of seborrheic dermatitis. Antifungal drugs of synthetic origin for local use are the predominant group according to the ATC classification. On the slide, we can see that the number of domestic medicines is smaller compared to foreign ones. We also analyzed the dosage form and the active substance for the further development of a new drug based on natural components. A promising medicinal form are balms and masks to be applied to clean scalp after shampooing and application for 10–15 minutes. Therefore, the creation of a new domestic medicinal product for the treatment of this pathology is promising and relevant.

**Conclusions.** Therefore, the search and analysis of data shows that the creation of a drug for the treatment of seborrheic dermatitis of the scalp using natural medicinal substances and active pharmaceutical ingredients for the expansion of the pharmaceutical market of medicated cosmeceutical preparations of Ukraine is an actual and promising task of our further scientific research.

## RESEARCH ON THE SELECTION OF ACTIVE PHARMACEUTICAL AND AUXILIARY SUBSTANCES DETERMINATION OF QUALITY INDICATORS OF LOTION FOR THE TREATMENT OF ALOPECIA

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**Introduction.** Currently, the treatment of non-scarring alopecia in men and women remains an urgent problem due to the increasing number of cases, patients turning to a trichologist, as well as to the pharmacy chain in search of effective drugs of systemic and topical action.

Therapy of alopecia is still considered a difficult task of dermatology and trichology, which is explained by numerous links of pathogenetic mechanisms that must be influenced simultaneously. Among the drugs for the correction of alopecia, there is a limited range of safe, highly effective means

that are able to act pharmacologically for a long time without side effects. Important factors are the need for constant use of topical agents, which significantly increases the cost of therapy.

**Aim.** The purpose of our research is to select the optimal composition of active and auxiliary substances, taking into account the compatibility of components and the therapeutic effect for the creation of a new domestic medicinal product in the form of a lotion for dermal application on the scalp for the treatment of alopecia.

**Materials and methods.** The following substances were selected as active pharmaceutical ingredients: aminopyrrole, dexpanthenol, extracts of medicinal plant raw materials (nettle, burdock, marsh yarrow), essential oils (thyme, peppermint, narrow-leaved lavender), melatonin. Ethanol 90 %, glycerin, lactic acid, benzoic acid and purified water were used as excipients in the process of manufacturing the lotion for the treatment of alopecia.

**Research results.** The substantiation of the composition of the lotion for the complex therapy of non-scarring forms of alopecia included an experimental selection of the optimal ratio of medicinal extracts of sedum, nettle and burdock, as well as auxiliary substances capable of providing the necessary properties of the medicinal form: stability, distribution, bioavailability, ease of use when spraying. A hydrophilic base is chosen as the base of the lotion – a solution based on purified water, ethanol 90 % and glycerin, which allows you to dissolve all the necessary ingredients, taking into account their polarity and chemical nature. In addition, hair lotion has a number of advantages over other medicinal forms, for example, creams, ointments or gels, because it is more comfortably applied to the hair. Quality indicators were determined in the obtained samples, and their sensory characteristics were also studied on test subjects (ease of application, uniformity of distribution, absence of stickiness, burning, itching, films after drying).

The prepared lotion for the correction of alopecia is a homogeneous, transparent, slightly opalescent liquid of emerald green color with a pleasant aroma of essential oils of mint, thyme and lavender.

**Conclusions.** On the basis of conducted physico-chemical, pharmacotechnological, organoleptic and sensory studies, the optimal composition of the lotion (sample No. 2) was determined, the ingredients are compatible with each other.