

SURVEY OF CHOICE FOR PACKING OF THE CURATIVE AND PREVENTIVE MEDICINES «PROPOLIS-DERMA»

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Introduction. In recent years, the proportion of fungal infections in the structure of infectious diseases has increased significantly. According to WHO statistics nearly 20% of adults are infected with fungal infections, and among ukrainians this index reaches 25-30%. Treatment of infectious diseases, including those of fungal etiology, with antibiotics cause difficulties, particularly in cases when the disease is caused by the drug-resistant strains. Overcoming the multiple resistance is a complex and important problem, solution of which is currently possible only by the replacement of drugs, that have lost their effectiveness, with new topical drugs. In previous studies, we have developed a number of curative and preventive medicines of the antifungal, antimicrobial and keratolytic action «Propolis-Derma», such as «Propolis-PSC» (RC № 3320715444-02:2016), «Propolis-PCD» (RC № 3320715444-01:2016) and «Propolis-PNH» (RC № 3320715444-03:2016), designed according to DSTU 4093-2002 «Cosmetic lotions and tonics. Specifications» for the treatment of dermatomycosis, pityriasis versicolor and diseases caused by yeast fungi *Candida*, and it has been proved that the proposed pharmaceutical compositions do not show side effects and meet the requirements of the State Pharmacopoeia of Ukraine and may be used to treat fungal infections.

The **aim** of the study. Choosing the type of packing for medicines «Propolis-derma» (Propolis-PSC, Propolis-PCD and Propolis-PNG).

Materials and methods. We used a new kind of medical products vials-pencils for storing and applying medicines to the affected part of the skin and its surroundings, which satisfies the requirements of the TS U 25.2-2094621496-001-2004 «Vial-pencil for storage and application of medicines» and is used as part of first-aid kits for personal use in clinical and inpatient departments of health care institutions.

The obtained results. We have conducted tests on the possibility of skin application of alcohol and water solutions of the developed curative and preventive medicines «Propolis-Derma» in and their compliance with TS U 25.2-2094621496-001-2004 «Vial-pencil for storage and application of medicines». The experimental samples of alcohol and water solutions «Propolis-Derma» have been injected into vials-pencils FK-132 and FK-92, which meet the technical requirements set by the specification documentation and sample KLLV 2094621496001 and the standard, approved in the proper manner.

Table 1

Test-trial of the solutions of curative and preventive medicines «Propolis-Derma», introduced into vials-pencils for compliance with TS 25.2-2094621496-001-2004 «Vial-pencil for storage and application of medicines»

Trial name	Specifications TS U 25.2-2094621496-001- 2004	Trial results	
		Vial-pencil FK-132	Vial-pencil FK-92
Size test	According to TS	Satisfies the requirements	Satisfies the requirements
Test of the quantity of medicine	The volume of introduced medicine-3 ml	Satisfies the requirements	Satisfies the requirements
Material test	According to TS	Satisfies the requirements	Satisfies the requirements
Test of the surface quality and lack of inclusions	According to TS	Satisfies the requirements	Satisfies the requirements
Impermeability test	According to TS	Satisfies the requirements	Doesn't satisfy the requirements
Package test	According to TS	Satisfies the requirements	Satisfies the requirements
Label test	According to TS	Satisfies the requirements	Satisfies the requirements
Medicine test	Manufacturer: OOO «Apitek-A» (Limited Liability Company) series 010 914	Satisfies the requirements	Satisfies the requirements

Data the table. 1 indicate that curative and preventive medicines «Propolis-Derma», introduced in vials-pencils of FK-132 and FK-92 models for storage and application to the skin according to the indices of trial and quality control, in general meet the requirements set out in TS U 25.2-2094624496-001-2004. However, the experiment have found the insufficient impermeability of the vials-pencils of FK-92 model, and therefore vials-pencils of FK-132 model have been elected for the further investigation.

Conclusions. The original packaging for the new curative and preventive medicine on basis of the substances of antimicrobial and antifungal action and tincture of propolis «Propolis-Derma» in the form of lotions-medical stick (vials-pencils for storage and application to the skin and its surroundings). Most match-purpose the vials-pencils of FK-132 model most closely correspond.