Justification of the creating an ointment with meloxicam for the treatment of musculoskeletal diseases

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Introduction. Dosage forms for external use include ointments that exhibit local and resorptive effects, i.e. penetrating deep under the skin or mucous membranes, reaching the bloodstream and having a general effect on the body. In this regard, emulsion ointments that provide high resorptivity of drugs of different chemical nature and have a positive effect on the skin are a convenient form for combined drugs containing both fat-soluble and water-soluble API. At the same time, today it is relevant to use hydrophilic bases in medicinal compositions, when it is possible to change not only bioavailability, but also to regulate it, to reduce toxicity and cost of production, as well as expand the market for new domestic high effective dosage forms.

The purpose of our research was to justify the creation of new meloxicam ointment with a complex effect (analgesic, anti-inflammatory and anti-exudative) for the treatment of disease of muskuloskeletal system.

Materials and methods. Research methods – analytical, experimental, statistical, generalization of information.

Obtained results. At the first stage, 10 compositions were studied as ointment bases - hydrophilic and 6-emulsion in nature, since it is known that many nesterod anti-inflammatory drugs exhibit the best pharmacological effect in ointments on hydrophilic and emulsion bases. On the basis of a screening experiment of compositions of hydrophilic and emulsion nature in terms of organoleptic and physicochemical parameters, 6 compositions of model samples of meloxicam ointments were selected. The concentration of meloxicam in all model ointment samples was 1 %. This concentration is optimal and was chosen by us on the basis of literature data. The following samples of ointment were taken: petrolatum-lanolin, starch-glycerol, polyethylene glycol alloys, emulsion wax. All bases were prepared according to the general rules. Meloxicam was introduced into bases by dissolving it in dimethyl sulfoxide (DMSO) or into molten base.

During 2 months of storage, a sample of 1 % meloxicam ointment on a vaseline-lanolin base with the adding of dimethyl sulfoxide exhibited delamination. A sample of an ointment on a starch-glycerin base within 1 month of storage did not withstand colloidal stability tests.

Conclusions. For further research, we selected samples of 1 % meloxicam ointments which were subsequently investigated for biopharmaceutical properties. The best result was registered for base polyethylene glycol alloys with DMSO; it was selected for rheological, microbiological and biological researches.

The relevance of assessing the affordability of cardiovascular drugs in Ukraine

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Introduction. In today's world, cardiovascular disease (CVDs) is the leading cause of death, with 17.5 million deaths per year, about 31% of all deaths. CVDs have the highest prevalence among the working population not only in Ukraine but also in the world. Treatment of this nosology is very costly, given the complexity and duration of the disease, and can lead to unpredictable consequences due to temporary disability of the patient. Therefore, the problem of drug availability is one of the most pressing issues in our country.

Purpose of the research. The availability of medicines is a prerequisite for universal coverage of health services. Thus, the grounding of connection between the affordability of cardiovascular medicines and the results of the therapy was the aim of the study. Affordability is one of the components of a well-established health care system and an important prerequisite for obtaining better results for the health of both the individual patient and the population as a whole. The basic elements of accessibility of quality medicines and medical devices are the availability and price at the place of service or at the patient level.

Materials and methods. An analysis of the functioning of the state program "Affordable Medicines" was conducted, which allows to reduce the financial burden on patients by receiving drugs free of charge or with a small surcharge and thus increase the availability of medicines. The method of comparative analysis determines the change in the price of a group of drugs over a period of time and demand for them.

Obtained results. The rapid spread of CVDs among the working age population is currently having a negative impact not only on the life expectancy of patients, but also on the economic situation in the country. One of the effective methods of combating the spread of these diseases is the implementation of Government programs on the availability of medicines, increasing the list of medicines that will be included in them. It was determined that the demand for domestically produced