

from the point of view of modern medicine and pharmacy. This is also due to the fact that local dosage forms have a number of advantages over systemic ones. This is the ease of use and dosage, the creation of a high concentration of the active substance directly at the place of application of the drug, the minimum number of side effects on the patient's body.

Conclusions. The introduction of a new vaginal agent with antifungal pharmacological activity into the pharmaceutical market and into medical practice will provide an opportunity to increase the effectiveness of treatment of vulvovaginal candidiasis.

SOLUBILITY STUDY OF FEXOPHENADINE

Ahmad Joumblat, Herasymova I.

Scientific supervisor: Yarnykh T.

National University of Pharmacy, Kharkiv, Ukraine

iryyna_herasymova@ukr.net

Introduction. In the modern formulation, gels are a more promising dosage form compared to ointments, since they have a pH close to the pH of the skin, do not clog the pores of the skin, they are quickly and evenly distributed, hydrophilic drugs can be introduced into the gel, and suspension gels can be made.

From the point of view of biopharmacy, which studies the action of drugs depending on their physical properties and preparation technology and dosage form, more drug release occurs when it is introduced into a dosage form in a dissolved form.

Purpose of the research. To investigate the solubility of fexofenadine in the most common solvents, basic and auxiliary substances used for the production of gels.

Materials and methods. Solubility tests of fexofenadine were carried out according to the article "Solubility" of the State Pharmacopoeia of Ukraine at a fixed temperature of 20 ± 2 ° C, using solvents of different polarity.

Obtained results. As a result of the solubility study, it was found that fexofenadine does not dissolve in water.

It is very easily soluble in ethanol 95% and in 5% sodium hydroxide solution, which is the best option for introducing it into modern Carbopol bases, as a solution with a neutralizing agent sodium hydroxide, which is necessary for thickening of polymer masses and creating a transparent product gel.

Fexofenadine is soluble in polyethylene glycols-400, glycerin, readily soluble in propylene glycol, which makes it promising to introduce it into a polyethylene oxide base of various molecular weights and combinations.

However, it is very slightly soluble in the universal solvent dimethyl sulfoxide and in oils, which is a problematic factor for the creation of ointment compositions on hydrophobic bases.

Additional studies on the selection of binary and ternary mixtures of solvents for fexofenadine revealed that it is readily soluble in binary mixtures of PEG-400 : ethanol (1 : 1), PEG-400 : PG (1 : 1), PEG-400 : DMSO (1 : 1) and a ternary mixture of PEG-400 : PG : DMSO (1 : 1 : 1).

Conclusions. The obtained results of studying the solubility of fexofenadine make it possible to choose a solvent for further introduction of the obtained solution into the composition of the future gel.