

## **DEVELOPMENT OF DOSAGE FORMS WITH IMMUNOMODULATORY EFFECTS FOR USE IN PEDIATRIC PRACTICE**

Samoroka K.S., Manscy O.A., Sayko I.V.

The National University of Pharmacy, Kharkiv, Ukraine

manscy@yandex.ru

In recent years there is a tendency for children born with weak and underdeveloped immune system, which reduces resistance to viral and bacterial agents, especially in preschoolers and school age children.

Thus, weak immunity negatively affects human performance later on in adulthood, which has negative consequences for the economy.

The immune capacity of the body can be enhanced by taking immunomodulators. Based on market research conducted, it has been found that a group of natural origin immunomodulators is presented in insufficient quantities. Therefore, the problem of developing an immunomodulating action drug of natural origin for children is relevant for the practical pharmacy.

The purpose of this research was the choice of optimal dosage form, substantiation of composition and technology of a drug with immunomodulatory effect.

As the main active ingredient lyophilized vegetable protein has been selected, which immunomodulatory properties have been established in previous studies.

As pediatric dosage form lozenges have been selected, because they are convenient to use, they are easily digested and cause no indigestion, have a pleasant taste.

The fluidity of initial sunflower protein powder was insufficient, so in order to improve this indicator, obtained granules by wet granulation. As a humidifier water was chosen. The resulting granules have been dried in the oven to the optimum level of residual moisture.

As a basis for lozenges gelatin was chosen. Also entered sufficient amounts of other excipients.

Choosing temperature modes proceeded from the properties of active ingredient and excipients. On the basis of thermogravimetric studies conducted at the NUPh optimal temperature conditions lozenges production have been determined.

Quality assessment of the lozenges conducted according to the State Pharmacopoeia of Belarus and Germany.

Today preclinical studies of the vegetable protein lozenges in animals are in progress.

The results of research have allowed grounding of composition and technology of immunomodulatory action medicinal product in the form of lozenges for use in pediatric patients.