

## **SUBSTANTIATION OF DOSAGE FORM FOR ANTITUSSIVE MEDICINE WITH IMMUNOMODULATING ACTION**

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Recent years, Ukraine shows a rapid growth in respiratory diseases in the population. In this category children are the most vulnerable, which is associated primarily with weakened or underdeveloped immune systems. Therefore the problem of prevention and treatment of childhood diseases is relevant.

The aim of research was to choose the optimal dosage form and to develop a technology for antitussive medicine with immunomodulating effect, with the possibility of use in pediatric practice.

To achieve this goal we have analyzed the market of drugs for the treatment of upper respiratory tract, in which result we conclude that the leading group is antitussive drugs of plant origin. However, we have found that today in the pharmaceutical market of Ukraine there are no drugs of combined action that would combine an antitussive and immunomodulating effects.

When choosing the optimal dosage form (DF), we have, on the basis of literature, stopped at the syrup, which is the most common medicinal form for children. To the composition of syrup as the main active ingredients we've included polyextract with plantain leaves, sage grass and ivy leaves and immunomodulator of plant origin, which is a glycoprotein oligopeptide composite preparation. As auxiliary substances we used xanthan gum and sorbitol.

Polyextract has been received by reperkolation using percolator Timatic Micro (Italy). As extractant used purified water, the ratio of raw material and extractant 1:10. The ratio of herbal drug in the extract is 5:1:1. Assessment of the extract quality was carried out according to SPU.

The syrup obtained by the addition of sorbitol to polyextract with stirring until dissolved. In the resulting syrup immunomodulator was added in required quantity. In order to keep microbiological purity of the syrup a preservative should be added to the composition. The syrup quality indices studied by the methods according to SPU, vol.1.

Thus, the results allowed to substantiate the structure and technology of complex product in the form of syrup, possessing anti-cough and immunostimulating action.