DEVELOPMENT OF METHODS IDENTIFICATION AND QUANTITATIVE DETERMINATION OF EXTEMPORANEOUS PREPARATIONS

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Introduction. More and more often are met situations when the patient's health care needs can not be satisfied with the help of factory production drugs. For example, if a patient has an allergy to one of the components or excipient; or if the patient is elderly or a child can not swallow the tablet, and / or it needs a smaller dose than it is available.

Aim. Continuing researches of the Department of Pharmaceutical Chemistry NUPh on development of quality control methods, we chose the extemporal production of powders, which are often appointed to patients and which composition as active ingredients include paracetamol, phenylephrine hydrochloride, rutin and ascorbic acid.

For use of these powders as inside blank pharmacy it is necessary to develop rapid analysis techniques for the selected recipe.

Materials and methods. A review of the literature has shown that for the analysis of active ingredients of pharmaceutical dosage forms it is appropriate to use the method of absorption spectrophotometry in the ultraviolet and visible region.

To determine the routine, we propose to use photocolorimetry method based on the reaction of formation of chalcone after interaction with an alcoholic solution of sodium hydroxide solution. Maximum optical density of yellow colored product of reaction is observed at wavelength of 418 nm. To reduce the error accuracy of quantitative determination method, we suggest to use method spectrophotometry by a standard method.

The attempt to use this method for the analysis of phenylephrine hydrochloride and ascorbic acid is not succeed, so a mixture of these components we offer to determine by titrimetric methods. For a quantitative estimation of phenylephrine hydrochloride is used a method of acid-base titration. Titrate alcoholic solution of formulation with 0.1M sodium hydroxide solution using phenolphthalein as an indicator. Ascorbic acid can be quantitatively titrated by iodometry.

Conclusions. We are working to develop methods to identify all of the API and the quantitative determination in the test dosage form.