

Results and discussion. One of the important steps in the development of a quantitative analysis of plant components is the correct choice of the standard, which further defines and calculates quantitative indicators.

To analyze the sum of polyphenols in a combination drug, we propose to use the blue complex formation reaction after interaction with the phosphor-molybdenum-tungsten reagent in a sodium bicarbonate solution. The absorbance of the resulting solution was measured after 30 minutes at a wavelength of 758 nm. Calculation of the quantitative content of polyphenolic compounds was carried out according to the standard method. As a standard, we propose to use pyrogallol.

Conclusions. The described technique will be worked out on experimental samples of a new dosage form, in the composition of which it is planned to introduce a plant tincture containing polyphenolic compounds as biologically active compounds exhibiting pharmacological action.

CONFORMITY OF COMPOUNDED CAPTOPRIL AND SPIRONOLACTONE SUSPENSIONS TO PHARMACOPOEIAL REQUIREMENTS

Nafeh S., Msokwa H. A., Alfred-Ugbenbo D., Zdoryk O. A.
National University of Pharmacy, Kharkiv, Ukraine
audeghinmotei@gmail.com

Introduction. Extemporaneous oral liquid preparations are widely used in pediatrics due to convenience in administering prescribed doses. Requirements for such compounded oral liquids, in this case suspensions, include physical, chemical and microbial stability during the period of use. Doses administered from extemporaneous oral liquid formulations are required to be within permitted limits to check under-dosing or overdosing of prescribed substances. In line with this reasoning the conceptualization and development of tools to measure and predict the behaviour of suspended particles gave birth to tests such as uniformity of administered doses and masses and particle size of suspended active pharmaceutical ingredients. Depending on the viscosity of the continuous phase, the particle size may be a determining factor in the uniformity of the delivered dose or mass. The microbiological stability of these extemporaneously prepared suspensions in liquid continuous phase and as a result of interactions between drug components in liquid phase and periodical exposure to air during use may be altered.

Aim. The purpose of this work was to ascertain the compliance of compounded suspensions of captopril and spironolactone to pharmacopoeial requirements

Materials and methods. 2.5mg/ml of captopril, prepared using pure substance as active ingredient; and 5mg/ml spironolactone compounded using pure substances and tablets separately as sources of active pharmaceutical ingredients; all suspended in simple syrup 85% v/v were prepared, stored in the dark for 30 days and subjected to viscosity, change in pH, uniformity of dose, delivered mass from multidose containers and microbial stability tests according to methods described in general chapters «2.2.3. Potentiometric determination of pH», «2.2.9. Capillary viscometer method», «2.9.40 Criteria for uniformity of dosage units», «2.9.27. Uniformity of mass of delivered doses from multidose containers» and «2.6.12. Microbiological examination of non-sterile products: microbial enumeration tests» of the European pharmacopoeia. A drop from compounded samples each was examined under a microscope. UV spectroscopy and titrimetry were used to quantify our analytes.

Results and Discussion. The pH ($\pm 5\%$) and viscosity ($\pm 1\%$) values over the period of storage were within limits. Withdrawn and measured doses and masses were within their respective limits ($\leq 15\%$, $\leq 10\%$). The total aerobic microbial and yeast counts were also within permitted limits. Results of microscopic examination of samples show a relatively homogeneous mixture with the largest particle size ≤ 50 micrometres.

Conclusion. Compounded suspensions of captopril and spironolactone comply with pharmacopoeial requirements. The preparations were stable for 30 days.