dangerously small. For example, only about 50 antiviral drugs are available on the ukrainian doctors' arsenal - most against herpesviruses - persistent infections and influenca. Antiviral therapy at the present time is a well-organized discipline with a promising future. Based on economic, scientific, medical and pharmaceutical interests as well as the constant need for new drugs to avoid resistance, it is most likely that the development of antiviral drugs over the next 20 years will focus on the development of tools that will be effective in HIV prevention and treatment. It consequently requires optimizing of the existed methods of analysis for antiretrovirals and elaboration of the new ones. To solve this task were put following aims: To investigate possibilities of thin layer chromatography (TLC) for analysis of stavudine and its structural analogues; to elaborate conditions for TLC identification of stavudine at the simultaneous presence of its some structural analogues.

Materials and methods. For evaluating investigations were used systems of solvents of neutral and alkaline character; TLC plates of two types and three compounds with similar to stavudine structure. Chromatographic behavior of stavudine and some structural analogues from the group of xanthines, and plates for thin-layer chromatography were used; besides, composition of system of solvents has been chosen and taken according to TIAFT requirements and propositions.

Results and discussion. As it has been stated, the proposed conditions for chromatographic identification and separation technique for stavudine at the simultaneous presence of structural analogues allows carrying out not only separation but step-by step identification of the investigated substances on the TLC plates. The most sufficient system for identification of the investigated compounds is system of alkaline character, because here all the compounds have Rf in the range between 0.2 and 0.8. Besides, this system is also appropriate for separation stavudine from its structural analogues, because difference between the closest Rf >0.1

Conclusions. As it follows from the conducted researches and from the data can be applied in practice for separation, identification of stavudine at the simultaneous researches with some structural analogues.

DEVELOPMENT OF METHOD LC-MC FOR DETERMINATION IMPURITIES IN INJECTION SOLUTIONS OF AMIODARONUM

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Introduction. The methods of high performance liquid chromatography (HPLC) of determination of impurities are presently worked out both for the substance of Amiodaronum (monograph of the European pharmacopoeia) and for the prepared medicinal forms. However the existent methods of finding out the impurities of Amiodaronum are mainly intended for control of by-products of synthesis of Amiodaronum and does not allow to control being products degradations of substance to the impurities, especially on the initial stages of process. It does practically impossible using of well-known methodologies of determination of impurities for control of stability of the prepared medicinal forms of Amiodaronum.

Aim. Using of chromatographic methodology to determine impurities on principle of Mass-spectrometry discovery in injection solutions of Amiodaronum. Such approach allows not only to find out the subzero concentrations of the determined substances - at the level of billion stakes but also identify the structure of these substances.

Materials and methods. For realization of the described approach, measuring conducted the method of high-efficiency liquid chromatography in obedience to European Pharmacopoeia, 1, 2.2.29, N, using a next equipment: chromatograph of Agilent 1290 with a diode-array detector and Mass-selective by the time-of-flight detector of Agilent 6530 (THE USA). Also used a gravimetric equipment ER are 182 firms AND Japan and measure tableware of A class.

Results and discussion. With the use of the described equipment by us was worked out HPLC methodology of gradient elution, allowing to divide all identified impurities of Amiodaronum into the

turned C-18 phase, Amiodaronum itself and two unidentified impurities discovered in the process of realization of research.

Application of Mass-selective detector allowed to bring down the threshold of finding out admixtures on 2-3 orders for analysable impurities and to define mass of molecular ion for unknown before impurities.

Validation of methodology was conducted in accordance with the requirements of European Pharmacopoeia.

Before realization of basic validation tests, we controlled the presence of documents, testifying to the fitness of the used equipment, raw material and reagents. Validation of methodology was conducted on separate validation descriptions: specificity, linearness, convergence, precision, rightness and intralaboratory precision. The got results statistically treated a Ordinary least squares (OLS) method in obedience to the requirements of Pharmacopoeia.

Conclusions. During research methodology of high-efficiency liquid chromatography is worked out with the gradient mode of eluation and Mass-spectrometry detection.

1. It is set by us, that the chosen terms of chromatograpy allow not only in number to determine all potential impurities in the prepared medicinal form but also conduct their authentication.
2. Validation of the worked out methodology is conducted and her fitness is well-proven.

MODERN APPROACHES TO POLYPHENOL COMPLEX' ANALYSIS IN MEDICAL PREAPARATION

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Introduction. The development of modern medicine can prevent and cure many diseases. At the same time, the number of chronic diseases has increased significantly, the frequency of allergic and toxic events associated with the use of allopathic remedies has increased significantly. In search of new effective and safe drugs, clinicians and pharmacologists turn to medicinal plants.

Particular attention in terms of relevance in medical practice deserves polyphenolic compounds. Polyphenols of diverse structure have a multidirectional pharmacological effect on the human body. To date, their antioxidant, anti-inflammatory, adaptogenic, capillary-strengthening properties have been proven.

The general interest and the possibility of widespread use of polyphenolic compounds necessitates the search for their new inexpensive and affordable raw materials. However, along with these, undoubtedly, positive moments regarding polyphenolic compounds, there is one significant factor that requires comprehensive refinement, conducting studies on data stamping - these are approaches to the standardization of polyphenols. In particular, the development of methods for qualitative and quantitative determination, which makes it possible to standardize polyphenols in the medicinal plant raw materials, as well as in the medicinal products containing it.

For identification of polyphenols phosphomolybdic acid is used as a reagent for staining phenolic compounds in thin layers of sorbent. Polyphenols can be studied by spectroscopy, especially in the ultraviolet spectrum, by fractionation or paper chromatography. The main methods of determining polyphenols due to the presence in their structure is easy oxidising hydroxyl, as well as chromophore groups are spectroscopic, chromatographic, electrochemical and chemical. However, the basic methods of analysis of real objects containing polyphenolic compounds are chromatographic and chemical. Also is very interesting for determination of polyphenols is method of spectroscopy.

Aim. Study the possibility of analyzing the sum of polyphenolic compounds in a combined dosage form by spectrophotometry.

Materials and methods. The sum of polyphenols was determined spectrophotometrically by reaction with phosphomolybdotungstic reagent.