Table 1.

The m/z values of typical ions

Name of substance	Retention time (Rf), minutes	Typical ions (m/z)
Sertraline	18.89	42, 89, 115, 144, 159, 239, 262, 274, 304
Paroxetine	20.37	44, 70, 109, 138, 177, 192, 329
Fluoxetine	13.79	58, 81, 91, 119, 134, 162, 179

Based on the results obtained, we investigated the approaches for conducting a qualitative analysis of antidepressants, the conditions for sampling in their determination, the matrix effects and methods for their elimination using the GC/MS method. Experimental data indicate that this method can be used to determine small amounts of substances in various multicomponent mixtures.

DEVELOPMENT OF A METHOD FOR THE QUANTITATIVE DETERMINATION FOR ESTABLISHING THE STABILITY OF MEDICINES, WHICH CONTAIN SILVER

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Introduction. The criterion for the stability of the drug is the preservation of its quality, that is, its appearance, solubility, goodness and quantitative content. A reduce in the quantitative content of the active substance in the drug confirms its instability. Therefore, the problem of drug stability is always relevant. In the pharmaceutical market, there are many medicines containing silver as an active ingredient. They are used in the form of solutions, ointments, intranasal forms for external use and have a high antimicrobial effect, are used in pediatric practice. Therefore, the object of the study was a solution of protargol 2% -10 ml.

Aim. Development of a method for the quantitative determination of drugs containing silver in accordance with existing requirements for establishing the stability of drugs.

Materials and methods. The object of the study was a powder of silver proteinate for intranasal use of 0.2 grams, complete with a solvent. Technology of preparing protargol solution according to the instructions for use: 0.2 grams of silver proteinate were dissolved in 10 ml of water for injection and shaken up for 10 minutes. Method of thiocyanatometric determination of protargol solution 2% -10 ml: 2 ml of concentrated sulfuric acid were added to 2 ml of the solution and heated for 15 minutes, then 3 ml of concentrated nitric acid were added and it was continued to be heated until the reaction mixture was discolored. The solution was cooled, then several drops of iron ammonium alums were added. It was titrated with a 0.02 M solution of ammonium thiocyanate in a yellow pink color.

Results and discussions. The drug was mineralized in the Kjeldahl flask with concentrated sulfuric and nitric acids to convert the organically bound silver into an inorganic state. After that, the quantitative determination was carried out by a *thiocyanatometric* method.

X, г silver proteinate was calculated due to the equation:

$$X, g\ assay = \frac{Amount\ of\ titrant \cdot K \cdot T \cdot 10}{2{,}0}$$

Conclusions. The quantitative content of silver proteinate in the studied dosage form was determined using thiocyanatometric titration. The developed method of the quantitative determination allowed to obtain reliable results. A standard 0.02 M solution of ammonium thiocyanate was used as a titrant. Statistical processing of the results of the quantitative determination was carried out.