USE OF TEST "DISSOLUTION" FOR ESTIMATION OF QUANTITY OF ISONIAZID IN MEDICINAL FORMULATIONS

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In the pharmaceutical industry drug dissolution testing is routinely used to provide critical in vitro drug release information for both quality control for example to assess batch-to-batch constancy of solid oral dosage forms such as tablet and drug development.

Tablets taken orally remain one of the most effective means of treatment available. The effectiveness of such dosage forms relies on the drug dissolving in the fluids of the gastrointestinal tract prior to absorption into the systemic circulation. The rate of dissolution of the tablet is therefore crucial.

One of the problems facing the pharmaceutical is to optimize the amount of drug available to the body, its bioavailability. It is a subcategory of absorption and is the fraction of an administered dose of unchanged drug that reaches the systemic circulation, one of the principal pharmacokinetic properties of drugs. Inadequacies in bioavailability can mean that the treatment is ineffective and a worst potentially dangerous.

It is known, that even nowadays tuberculosis is still widely spread, but is a treatable and curable disease. Active, drug-sensitive disease is treated with a standard six-month course of four antimicrobial drugs that are provided with information, supervision and support to the patient by a health worker or trained volunteer. The vast majority of cases can be cured when medicines are provided and taken properly. Medicinal preparations are divided into basic remedies (isoniazid, rifampicin, pyrazinamide and ethambutol) and reserve remedies. For our researches, we have chosen substance from the basic remedies –isoniazid.

Our researches are devoted for comparison of generic preparations containing isoniazid on the base of test "Dissolution". Investigations were carried out according to the demands of the State Pharmacopoeia of Ukraine, test "Dissolution", using Pharma Test–DT 70 and spectrophotometer "Evolution 60S". For researches were taken isoniazid tablets 0.3 of two Ukrainian trademarks Lugal and Darnitsa.

Calculations of the quantitative content of isoniazid were carried out by UV-spectrophotometry by the method of standard.

As it has been stated, in 45 min isoniazid contents is not less than 90% of the nominal one. Test "Dissolution" can be used for comparison of quality for generic isoniazid-containing medicinal formulations.