

## RESEARCH OF SENSITIVITY INDEX IN PREGNANCY TESTS

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To diagnose pregnancy means to establish the fact of pregnancy and its term. Timely and accurate diagnosis of pregnancy and definition of its term are needed to prevent complications, premature birth and prolongation. In addition, early diagnosis of pregnancy allows eliminating of harmful conditions in the first weeks of pregnancy, performing specific recommendations for its preservation, eliminating harmful factors influence, appropriate correction of life plans, diet, work, sexual activity and other aspects.

The aim of our work was to study pregnancy tests on the pharmaceutical market of Ukraine in terms of sensitivity and detection of tests with the highest performance.

Pregnancy Test is a quick qualitative immunochromatographic test for human chorionic gonadotropin (hCG) in urine specimens for early detection of pregnancy. Human chorionic gonadotropin is a glycoprotein hormone produced in the early stages of pregnancy. Analysis of literature has shown that in normal pregnancy hCG is detected in urine and serum soon after conception and reaches the level of 5-50 mIU / ml during the first week of pregnancy. The test is designed for use in hospitals or at home.

During the work we have analyzed the market of pregnancy tests by the sensitivity index, which is one of the factors in the selection.

When analyzing the range, it was found that there are tests with different sensitivity: 30, 25, 20 and 10 mIU / ml. The least sensitive are simple strips, and the most susceptible are Jet tests. The dependence between test sensitivity and gestation term at which it can be used has also been determined. Thus, tests with a sensitivity of 10 mIU / ml allow pregnancy indication on the 7th day after fertilization, the ones with sensitivity of 20 mIU / ml - on the 7-10th day after fertilization. And only the tests that have sensitivity index of 25 mIU / ml can be used from the 1st day of delay.

After analyzing the pharmaceutical market of Ukraine, we have found that the highest sensitivity possess "Clearblue" and "Lady's test" tests, which can be used from the 1st day of delay.

Consequently, the sensitivity index is one of the factors when choosing a pregnancy test. Study of sensitivity index has allowed us to identify tests that possess the highest values, which allows to diagnose pregnancy from the first day of delay.