

*Baikova A. V.*

**THE USAGE OF THE PHARMACOGENETIC TESTING METHOD AMONG PATIENTS  
WITH MENTAL AND BEHAVIORAL DISORDERS FOR ASSIGNING PSYCHOTROPIC  
MEDICINES**

*Scientific supervisor senior teacher Kazakov S. V.*

*Department of Foreign Languages  
Belarusian State Medical University, Minsk*

**Relevance.** Pharmaceutical resistance, which is due to the biotransformation features of drugs, is one of the urgent problems of modern medicine, particularly psychiatry. Genetic characteristics of patients can determine up to 50% of all adverse pharmacological responses, such as drug inefficiencies or adverse drug reactions.

**Aim of the study:** Improving the effectiveness of drug treatment of mental and behavioral disorders, depending on genetic factors.

**Materials and methods.** Biological material for pharmacogenetic testing: blood, saliva, buccal epithelium. The pharmacogenetic analysis is carried out in several steps: 1. DNA isolation from the patient's biomaterial or biomaterial of the participant in the control group. 2. Conducting polymerase chain reaction (PCR) in order to produce target DNA fragments containing a genetic marker. 3. Visualization and interpretation of the results of genetic typing.

**Results and its discussion.** Relevant pharmacogenetic test results are the identified patient genotypes for a particular polymorphic marker, in particular, the detection of cytochromes of the P450 family, metabolic drugs.

**Conclusion.** To optimize the clinical use of drugs, it is necessary to search for ways to increase the effectiveness of drug treatment. One of the directions in this is research to clarify the role of genetic factors in the individual response of the body to drugs. The introduction of pharmacogenetic tests in clinical practice will allow an individualized approach to the choice of a drug and its dosage regimen, taking into account factors affecting the pharmacological response that a particular patient has. The method of pharmacogenetic testing will improve the effectiveness of drug therapy for a wide range of mental diseases.