

Cardiovascular diseases are the main cause of mortality and morbidity in the societies of highly developed countries. Traditional risk factors for cardiovascular diseases, such as hypertension, diabetes, obesity or lipid metabolism disorders, identify some patients at risk of myocardial infarction. However, in the group of younger patients, i.e. those under 55-60 years of age, genetic factors that increase the risk of cardiovascular diseases play a greater role. One of the methods of assessing such a genetic risk is the detection of genetic variants which we know are associated with the occurrence of myocardial infarction or other atherosclerotic diseases. Many of such variants have now been identified, each with a frequency greater than 5%, which, when taken together, significantly increase the risk of a cardiovascular event. Current studies in the European population indicate that the determination of 27 such variants (the so-called PRS - or "polygenic risk score") may significantly contribute to the improvement of the assessment of cardiovascular risk compared to the assessment based only on traditional risk factors. The aim of the study is to assess the effectiveness of cardiovascular risk estimation in a population representative of primary care patients over a 8-year follow-up based on PRS. In addition, we want to assess whether there is a relationship between genetic risk and the efficacy of hypolipidemic therapy, which can be used as a basis for designing research in the field of pharmacotherapy.