4. PERSONALIZED MEDICINE AND CARDIOVASCULAR DISEASES

Author: Abdool Rahim Sooltan

Scientific advisor: Garabajiu Maria, Assistant Professor, Department of Family Medicine, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova.

Introduction. There was a remarkable growth in scientific publication on personalized medicine within the past few years in the field of cardiovascular disease. In the era of personalized/precision medicine the combination of genetic information with other biomarkers may add additional benefits for preventive and therapeutic strategies in individuals.

Aim of study. The objective of this research was to analyze the perspectives of personalized medicine implementation in cardiovascular pathologies.

Methods and materials. For this study were reviewed articles in English published in the time frame 2018-2023 from the PubMed and Google Scholar databases. The keywords used: “Personalized medicine” OR “Precision medicine” AND ”Cardiovascular” OR “Cardiology”

Results. The personalized approach can be largely implemented in cardiovascular diseases (CVD), starting from the prevention (risk stratification, genetic susceptibility), specific investigation through structural and functional testing, and not the least – genome based clinical/treatment decisions. Many studies reported the genetic predisposition and possible evaluation of CVD risk in myocardial infarction, atrial fibrillation, congestive heart failure, cardiomyopathies, hypertension, dyslipidaemia etc. The use of clinical genomic markers have a very good perspective in treatment decision making in cardiology: beta blockers, warfarin, angiotensin blockers, fenofibrate, ezetimibe, etc. New technologies such as high-resolution CT coronary imaging, high-resolution 2-D echocardiography, wearable devices, and other technologies are used to personalize care and to improve the efficacy as well as the safety of the treatment of patients with CVD.

Conclusion. Personalized approach based on genetic testing has clinical implications in terms of diagnosis, family screening, guiding therapies and management strategies, and providing personalized prognosis in different CVD.