

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ**



МАТЕРІАЛИ

**106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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THE CURRENT STATE OF CARDIAC REHABILITATION: PROBLEMS AND PROSPECTS

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Introduction. Cardiovascular diseases (CVDs) cause more than 30% of all deaths worldwide. This indicator reaches 39%-47% (for females and males, respectively) in Europe, and most deaths in the United States are due a CVD. The annual global number of CVD deaths more than 17 million. Predispositions and risk factors of CVDs on a behavioral, biological, and social level were confirmed and implemented into primary and secondary preventive programs.

The aim of the study. To describe structures, variants and methods of cardiac rehabilitation in general and discuss their advantages and disadvantages as well as perspectives of improvement patient's adherence.

Material and methods. We studied and analyzed the modern scientific papers from the PubMed library were discussing advantages and perspectives of the different strategies and contents of cardiac rehabilitation during last 10 years. CR has been found effective in improving cardiac functions, reducing diseases recurrence, hospital readmission, and mortality in patients with cardiovascular diseases, and is cost-effective. CR has been recognized as a class 1A recommendation for secondary prevention of cardiovascular diseases by the European Society of Cardiology, the American Heart Association, and the American College of Cardiology Foundation.

Results. The effective and individualized multidisciplinary assessment of cardiac patients, especially in cases of comorbidities, plays an important role in healthcare, serving as a fundamental basis that incorporates medical, psychological, and social aspects. The CR program is primarily based on the favorable effects of exercise-based cardiac rehabilitation, but complex programs also include educational sessions focusing on risk factors, modification of the lifestyle, diet recommendations, psychological support, and optimized pharmacotherapy. Unfortunately, there are still some problems in the wide implementation of the cardiac rehabilitation all over the world like the low participation and completion among eligible patients. CR consists of the several following phases: hospitalization phase; outpatient phase; and maintenance phase with different aims and durations. Various training modalities proposed in the modern literature are presented in the papers – classical aerobic training, resistant training, high-intensity interval training and, also, some alternatives including Tai Chi and yoga. Matter of low patients' adherence for regular participation in the cardiac rehabilitation program is discussed along with propositions of improvement of this situation. Finally, it was estimated that the primary objective of cardiac rehabilitation program is to guarantee the safety, efficacy, and customization of exercise training in the frame of complex secondary preventive measures following the specific requirements of each patient.

Conclusions. Thus, cardiac rehabilitation produces economic savings and better adherence to medical therapies in addition to lowered hospitalization and improved quality of life. CR should be formulated according to national healthcare systems. CR programs may include traditional (center-based CR models) and novel delivery options (home-based CR models, remote monitoring, or mobile health strategies to link patients with CR professionals, either alone or in combination with center-based CR) as part of the program. The programs may also incorporate the core clinical and operational components of an industry-standard service that provides, tracks, and reports on safe and effective exercise.

Future cardiac rehabilitation programs may focus on targeting populations with a higher risk, including individuals with numerous comorbidities, those who have experienced recurrent cardiovascular events, and younger patients with a familial propensity to heart disorders.