

Tjelesna je aktivnost put ka zdravlju Physical activity as pathway to health

Žaklina Muminović^{1,2*},
Mario Ivanuša^{1,3}

¹Poliklinika za prevenciju kardiovaskularnih bolesti i rehabilitaciju, Zagreb, Hrvatska

²Sveučilište u Rijeci, Fakultet zdravstvenih studija, Rijeka, Hrvatska

³Sveučilište u Rijeci, Medicinski fakultet, Rijeka, Hrvatska

¹Institute for Cardiovascular Prevention and Rehabilitation, Zagreb, Croatia

²University of Rijeka, Faculty of Health Studies, Rijeka, Croatia

³University of Rijeka, Faculty of Medicine, Rijeka, Croatia

KLJUČNE RIJEČI: kardiovaskularna rehabilitacija, fizioterapijski tretman.

KEYWORDS: cardiovascular rehabilitation, physiotherapy treatment.

CITATION: *Cardiol Croat.* 2018;13(11-12):484-485. | <https://doi.org/10.15836/ccar2018.484>

***ADDRESS FOR CORRESPONDENCE:** Žaklina Muminović, Poliklinika za prevenciju kardiovaskularnih bolesti i rehabilitaciju, Draškovićeve 13, HR-10000 Zagreb, Croatia. / Phone: +385-1-4612-290; Fax: +385-1-4612-343 / E-mail: zaklina0101@gmail.com

ORCID: Žaklina Muminović, <http://orcid.org/0000-0001-6037-7537> • Mario Ivanuša, <http://orcid.org/0000-0002-6426-6831>

Program ambulantne kardiovaskularne rehabilitacije (AKVR) predstavlja sastavnicu sekundarne prevencije kardiovaskularnih bolesti. Prisutan je u velikim urbanim sredinama i prilagođen je bolesnicima kojima je indicirana takva vrsta rehabilitacije. Program AKVR realizira se timski interdisciplinarnim i transdisciplinarnim pristupom. Važan dionik tima je i prvostupnik fizioterapije, koji uz nadzor kardiologa i u dogovoru s fizijatrom, provodi fizioterapijski (FT) tretman. Nakon stratifikacije kardiovaskularnog rizika FT tretman započinje određivanjem ciljeva koji podrazumijevaju poboljšanje funkcijskog kapaciteta bolesnika, psihološku stabilizaciju, pripremu za socijalnu reintegraciju te obnovu radne sposobnosti. Nastavlja se provođenjem kvalitetne i sveobuhvatne FT procjene (subjektivne i objektivne SOAP, ICF) koja uključuje antropometrijska mjerenja te terapijsku edukaciju bolesnika i članova obitelji. Pri tom se, neizostavno, identificiraju i evidentiraju tegobe, ali i prepoznaje potreba za daljnjom dijagnostikom uz obavezno dokumentiranje svih faza i aspekata FT tretmana. Utvrđuje se individualni program intervencije FT postupcima, od terapijskih vježbi preko intervalnog treninga, vožnje na suvremenom rehabilitacijskom kompjutorski kontroliranom biciklu do edukacije o smjericama i zakonitostima primjene tjelesne aktivnosti, važnosti pravilnog disanja, tehnikama relaksacije, poboljšanja posture i sl. Bolesnici se rehabilitiraju skupno ili individualno, po pravilima struke i prema protokolu o timskom radu, uz stalno telemetrijsko praćenje elektrokardiograma kojim se nadzire podnošljivost napora i klinički status. Na kraju provedenog programa vrši se završna FT procjena i evaluacija. Svi postupci dokumentiraju se u kartonu bolesnika, a obračunavaju sukladno dijagnostičko-terapijskim postupcima u sekundarnoj zdravstvenoj zaštiti koje propisuje Hrvatski zavod za zdravstveno osiguranje.¹⁻⁴

Prvostupnik fizioterapije služeći se stručnim, kognitivnim, socijalnim i komunikacijskim vještinama provodi različite oblike FT programa u Djelatnosti za ambulantnu rehabilitaciju Poliklinike Srčana (**tablica 1**). On inzistira na činjenici da je kretanje lijek, a za zdravlje važna konstantna tjelesna aktivnost.

The Outpatient Cardiovascular Rehabilitation Program (AKVR) is a component of secondary prevention of cardiovascular diseases. It is present in large urban areas and is tailored to patients who are indicated such a type of rehabilitation. The AKVR program is conducted in teams by applying interdisciplinary and transdisciplinary approach. Bachelor of Physiotherapy is an important team member and he conducts the physiotherapy treatment (FT) under the supervision of a cardiologist and in agreement with a physiatrist. Following the cardiovascular risk stratification, FT treatment starts by identifying the objectives aimed at the improvement of the patient's functional capacity, psychological stabilization, preparation for social reintegration and recovery of work capacity. It is continued by conducting the high quality and comprehensive FT assessment (subjective and objective SOAP, ICF) that includes anthropometric measurements and therapeutic education of a patient and his/her family members. In addition, discomforts are identified and recorded, thereby recognizing a need for further diagnosis accompanied by mandatory documenting all stages and aspects of the FT treatment. An individual intervention program by using FT procedures, starting from therapeutic exercises, interval training, riding a modern rehabilitation computer-controlled bicycle to education on the guidelines and laws of the physical activity, the importance of proper breathing, relaxation techniques, posture improvement, etc is determined. Patients are rehabilitated either in groups or individually according to the professional rules and the protocol on teamwork, accompanied by continuous telemetric monitoring of the electrocardiogram that monitors the exertion tolerance and clinical status. A final FT assessment and evaluation is made following the program conducted. All the procedures are documented in the patients' records and are calculated in accordance with diagnostic and therapeutic procedures in secondary healthcare prescribed by the Croatian Health Insurance Fund.¹⁻⁴

Bachelor of Physiotherapy will by applying professional, cognitive, social and communication skills perform various forms of FT program in the Department for Outpatient Rehabilitation of Institute (**Table 1**). He insists on the fact that movement is a medicine, and that continuous physical activity is essential to the health.

RECEIVED:
October 24, 2018

ACCEPTED:
November 5, 2018



TABLE 1. Forms of physiotherapeutic interventions in the Department for Outpatient Rehabilitation of Institute for the Prevention of Cardiovascular Diseases and Rehabilitation, Zagreb.

	Group AKVR	Individualized AKVR	Individual AKVR	Physical exercises organized in the afternoon	Public Health Actions
Warming-up & flexibility	+	+/-	+/-	+	+/-
Movement coordination	+	+	+	+	+/-
Interval training	+	+	+/-	+	+/-
Cooling down	+	+	+/-	+	+/-
Medical equipment for active rehabilitation	+	+	+	+	+
Computer-controlled rehabilitation bicycle	+	-	-	+	-
Electrocardiogram monitoring	+	+	+	-	-
Monitoring of vital signs and general condition	+	+	+	+/-	-
Monitoring Borg scale of perceived exertion	+	+	+	+/-	-
Monitoring of breathing, posture and positioning	+	+	+	+/-	+/-
Therapeutic education	+	+	+	+/-	+/-
Duration of the program	12 weeks	12 weeks	12 weeks	At the patient's choice	During the time of the action
Number of organized medical gymnastics sessions a week	3-5	2-3	1-2	2	-

AKVR = outpatient cardiovascular rehabilitation

LITERATURE

- Ivanuša M, Narančić Skorić K, Glavaš Vražić S, Kruhek Leontić D, Heinrich K, Mažuran Brkljačić L, et al. Outpatient Cardiovascular Rehabilitation in Croatia. *Cardiol Croat.* 2015;10(1-2):28-42. <https://doi.org/10.15836/ccar.2015.28>
- Muminović Ž, Brkljačić Mažuran L, Dražić-Balov J, Glavaš Vražić S, Ivanuša M. I am active, therefore I am: physiotherapy interventions in cardiovascular rehabilitation. *Cardiol Croat.* 2016;11(10-11):548-9. <https://doi.org/ccar2016.548>
- A.C.P.I.C.R. Role of the physiotherapist in cardiac rehabilitation. 2018. 2nd edition. Available at: <https://onedrive.live.com/?authkey=%21AHiSkL5iebit3yE&cid=450602D6AC270B1A&id=450602D6AC270B1A%216463&parId=450602D6AC270B1A%212685&o=OneUp> (October 23, 2018).
- Abreu A, Mendes M, Soares H, Silveira C, Fontes P, Teixeira M, et al. Mandatory criteria for cardiac rehabilitation programs: 2018 guidelines from the Portuguese Society of Cardiology. *Rev Port Cardiol.* 2018 May;37(5):363-373. <https://doi.org/10.1016/j.repc.2018.02.006>