

## THE EVOLUTION OF THE CARDIOVASCULAR PROFILE IN PATIENTS HOSPITALIZED IN THE COVASNA CARDIOVASCULAR REHABILITATION HOSPITAL DURING A SINGLE ADMISSION PERIOD

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### Abstract

**Introduction:** The cardiovascular mortality and morbidity in Romania continue to have a high incidence. The cardiovascular risk factors play an extremely important role in the cardiovascular diseases pathophysiology, in the cardiovascular morbidity and mortality evolution. The risk factors can be classified as non-modifiable and modifiable. The patient follow-up is important by using primary and secondary prevention measures and also cardiovascular rehabilitation programmes to modify the cardiovascular risk. A special type of phase III rehabilitation is the institutionalized, in-hospital one, the so-called “Covasna Model” which is being used at the Cardiovascular Rehabilitation Hospital Covasna and which is used to determine necessary intervention measures to influence the modifiable risk factors. The aim of this study was to evaluate the cardiovascular risk factors profile during a single admission of patients in the Cardiovascular Rehabilitation Hospital Covasna.

**Material and Methods:** 141 patients of whom 94 women (66.7%) and 47 men (33.3%) admitted to the Cardiovascular Rehabilitation Hospital Covasna were included in the study. The mean age was  $65.41 \pm 9.6$  years and the mean hospitalization period was 15 days.

All patients were evaluated regarding the existence of main cardiovascular risk factor and cardiovascular diseases, prescribed medication and indicated rehabilitation methods. All patient were included in cardiovascular rehabilitation programmes represented by climatotherapy, aerotherapy, physical exercise, CO<sub>2</sub> baths, mofettes, electrotherapy, health education, cardioprotective therapy (aspirin, ACE inhibitors/sartans, beta-blockers, statins).

The evolution of the mean values of lipidic fractions, glycemia, atherogenic index was analyzed between admission and discharge.

**Results:** The prevalence of the risk factors in the studied group was: hypertension 84.4% (119), dyslipidaemia 61% (86), overweight/obesity 27.7% (39), smoking 1.4% (2), diabetes mellitus 25.5% (36). The cardiovascular risk factors were present in similar proportion in both genders, with the exception of diabetes mellitus which was more frequent in men. The cardiovascular rehabilitation programmes were similarly indicated in both genders. At discharge, the main blood biochemistry parameters values were improved similarly in both genders with the exception of LDL-cholesterol which had a lower improvement in men. The participation of patients in the rehabilitation programmes and procedures for a period of 15 days in the Cardiovascular Rehabilitation Hospital Covasna was followed by a significant improvement of blood biochemistry parameters represented by total cholesterol, LDL-cholesterol, triglycerides, HDL-cholesterol and glycemia.

**Discussion and Conclusion:** In cardiovascular patients obtaining an improvement in cardiovascular risk factors requires long-term cardiovascular rehabilitation programmes as well as lifestyle changes and secondary medical prevention. The Covasna balneary resort with its specific natural factors offers a special treatment facility.