



CASE: CARDIAC REHABILITATION

Exercise reduces costs in cardiac rehabilitation

According to a study conducted at the University of Oulu, exercise-based cardiac rehabilitation reduces health care costs and the incidence of acute cardiac events. The 204 patients who participated in the study were treated at the Oulu University Hospital after experiencing an acute cardiac event.

The patients were randomly divided into two groups: an exercise-based cardiac rehabilitation group and a standard care group. The patients of the first group started exercising after two weeks of the acute cardiac event according to international guidelines. For six months, the patients exercised once a week at a gym with the help of a physiotherapist.

They also exercised at home on a weekly basis. These controlled home exercises were continued for another six months.

The study focused on the effects of exercise-based cardiac rehabilitation on acute coronary events and health care costs. The patients of the exercise-based cardiac rehabilitation group had 5 acute cardiac events, whereas the standard care group had 16 acute cardiac events.



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The One Life health project strives towards a healthier Finland. The Finnish Brain Association, the Finnish Diabetes Association, the Finnish Lung Health Association, the Organisation for Respiratory Health, the Finnish Association for Mental Health, the Finnish Heart Association, and the Cancer Society of Finland have teamed up to promote people's health and welfare throughout their lives. Duodecim participates in the project as an expert organisation.

Costs

The costs of exercise-based cardiac rehabilitation amounted to around 375 euros a year per patient.

Savings

The health care costs of the patients who participated in the exercise-based cardiac rehabilitation group were 1,000 euros lower in comparison to the standard care group if the costs resulting from exercise-based rehabilitation are taken into account. The costs of the rehabilitation group were around 1,652 euros per patient, while the costs of the control group were 2,629 euros per patient.

In Finland, around 25,000 people suffer a heart attack every year. According to the study, 62% of cardiac patients are willing to participate in exercise-based rehabilitation. This would save around 15.5 million euros in health care costs each year.

Please note: In the One Life living room debates, the investments and savings have been determined on the basis of an investment of 500,000 euros. The savings were calculated based on 1,300 cardiac rehabilitation participants.

Please note:

The study was somewhat limited since it did not take the entire social network of the participants into account. The productivity-related benefits of the rehabilitation of employed participants were underestimated. However, more than half of the study subjects were in retirement. The study was designed to be a cost-benefit analysis. This is why it was not possible to analyse the changes in the patients' physical condition or the post-rehabilitation risk factors.

The group of study subjects was slightly unbalanced because persons with serious complications could not be admitted to take part in the intensive exercise-based home rehabilitation. In addition to this, some of the suitable candidates did not want to participate as they thought that this type of rehabilitation would be too demanding physically.

Sources

- Economic evaluation of exercise-based cardiac rehabilitation in patients with a recent acute coronary syndrome. Revised version submitted to Scand J Med Sci Sports 2016
- Liikunnallinen sydänkuntoutus vähentää terveydenhuollon kustannuksia ja uusia vakavia sydäntapahtumia: 12 kuukauden seuranta [Exercise-based cardiac rehabilitation reduced health care costs and incidence of acute coronary events: 12-month surveillance]. Liikunta & Tiede; 5: 47-48, 2015
- Interview with docent Arto Hautala 7/6/2016



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