POSTER ABSTRACT

**Effects of the patient education strategy - Learning and Coping - in cardiac rehabilitation on mortality and readmissions: a randomised controlled trial (LC-REHAB)**

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**Background:** Despite a reported decline in cardiovascular mortality and morbidity as well as improved primary and secondary prevention, 18% of readmissions occur within 30 days after discharge from hospitalisation with an acute myocardial infarction or heart failure. Further, only one third of readmissions are related to the incident event. Other readmissions might be caused by insufficient coping strategies, anxiety or stress. Thus, effective patient education strategies in cardiac rehabilitation which address psychosocial factors are wanted.

**Objective:** To assess the effects of the patient education strategy ‘Learning and Coping’ in cardiac rehabilitation on mortality and readmissions – explorative results from the LC-REHAB trial.

**Methods:** In total, 825 patients with ischaemic heart disease or heart failure were randomised 1:1 to the intervention group (cardiac rehabilitation using learning and coping strategies) or to the control group (standard cardiac rehabilitation) in three hospitals in Denmark. Group-based training and education hours were the same in both arms. The intervention learning and coping was situational, reflective and inductive with experienced patients as co-educators and a supplement of two individual interviews. The teaching approach in the control group was deductive and of a more structured character than the approach in the intervention group. This educational strategy was the approach that had been formerly used in the three hospitals. Outcomes were time to death or readmission, lengths of stay, or absolute number of deaths or readmissions. Data were analysed with Cox regression (time to event analyses) and logistic regression (absolute number of events analyses).

**Results:** 50% of the approached participated. No between-group differences were found in time to death or first readmission; or in lengths of stay. Within 30 days after completion of cardiac rehabilitation the absolute number of all-cause readmissions was 117 in the intervention group and 146 in control group, adjusted OR 0.78 (95% CI: 0.61; 1.01), P=0.06. This trend diminished long-term.

**Conclusion:** Adding learning and coping strategies to standard CR showed no significant effects on mortality or readmissions long-term. Applying these explorative results to all sub groups of patients with ischaemic heart disease or heart failure is debatable due to the participation rate of 50%.
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**Keywords:** rehabilitation; patient education; cardiovascular disease; self-care; morbidity; mortality