

Volume 15, 20 October 2015

Publisher: Uopen Journals

URL: <http://www.ijic.org>

Cite this as: Int J Integr Care 2015; ETC Conf Suppl; [URN:NBN:NL:UI:10-1-117182](https://nbn-resolving.org/urn:nbn:nl:ui:10-1-117182)

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Conference Abstract

Cost-utility Analysis of the Telerehabilitation of Heart Patients: The Teledi@log project

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Abstract

Purpose: The objective of the study was to assess the cost-utility of the telerehabilitation program of a project to assist heart patients (the Tele@log project) [1].

Context: A telerehabilitation programme, Teledi@log, for heart patients was developed and tested in a randomized controlled trial. The cardiac telerehabilitation programme was carried out across hospitals and healthcare centers in two municipalities. At discharge, an individualized three-month rehabilitation plan was formulated for each patient. At home, the patients measured their own blood pressure, pulse, weight and steps. The data were transmitted to a digital platform, where it could be accessed by healthcare professionals, patients and relatives. The aim of the intervention was to increase the patients' participation in the rehabilitation programme and thereby increase their health-related quality of life.

Methods: A randomized controlled trial (n=151) of the program was conducted and a cost-utility analysis was carried out of the costs of the implementation of the programme. Data collection for costs included initial investment in the telerehabilitation program, operating costs of the program, staff salaries in the rehabilitation activities and the patients' use of admissions, outpatient visits, emergency department (ED) and general practitioner. Quality of life was assessed by use of the SF-36 questionnaire. Based on the responses, the number of QALYs gained was estimated.

Results and discussion:

The amount of rehabilitation activities was approximately the same in the two groups, but the number of contacts with the physiotherapist was higher in the intervention group, while the number of group physiotherapist training sessions was higher in the control group. With regard to use of health care, the main difference was a higher number of ED visits in the control group. The mean costs of the intervention was €260. The mean total cost per patient was €5.500 in the intervention group and €4.000 in the control group.

The mean QALY gain was 0.057 and 0.046 in the intervention and the control group. Thus, the incremental cost-utility ratio was €136.000 per QALY gained. However, if only the intervention costs are included, the cost-utility ratio is reduced to €29.000 per QALY, thus indicating that the intervention may be cost-effective.

Keywords

telerehabilitation; heart patients; cost -utility analysis; randomized controlled trial

References

1. www.teledialog.dk Accessed 100515