



Rehabilitation at home after early supported discharge (ESD) for elderly patients after stroke

YELLOW REPORT | A SYSTEMATIC REVIEW

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Executive summary

Background

Stroke is a global health care problem. Approximately 25 000 people suffer from stroke each year in Sweden, and stroke is a major cause of adult disability. Post-stroke rehabilitation is fundamental to the health and quality of life of stroke patients. Stroke patients traditionally receive a substantial part of their rehabilitation in hospital. A service has been developed which offers hospitalised patients an early supported discharge (ESD) where rehabilitation continues at home, with the help of an interdisciplinary team with specialised stroke competence. Stroke teams coordinate both the discharge and rehabilitation through regular team meetings. The effectiveness of ESD and home based rehabilitation for elderly patients who have acquired mild to moderate disabilities after having a stroke have been scientifically investigated.

Objective

The aim of this systematic review was to assess the scientific evidence for ESD and rehabilitation at home for the elderly after stroke. A survey of practices was also conducted within the framework of the project, to examine the use of the intervention in Sweden.

Method

The systematic review was conducted using the standard methods of the Swedish Council on Health Technology Assessment (SBU). The review focused on the intervention ESD with subsequent rehabilitation at home. Outcomes assessed were: mortality, dependency (activities of daily living, ADL), instrumental ADL, health related quality of life, patients' and caregivers' satisfaction with the care and caregiver burden.

Randomised controlled trials were identified using the databases: PubMed, Embase, Cochrane Library and Cinahl (between 1987 and August 2013). In addition, reference lists and books were used to identify further studies. Studies were considered eligible if the population was of mean age ≥ 70 years.

The methodological quality of eligible studies were assessed and scored as low, moderate, or high risk of bias. Only studies with moderate or low risk of bias were included in the further analyses. GRADE was used to assess the scientific evidence.

We identified two different models of the services:

1. The interdisciplinary team co-ordinated both the discharge from hospital and provided rehabilitation and care in the home environment.
2. The interdisciplinary team co-ordinated the discharge from hospital and planned and supervised the immediate post discharge care. The care was thereafter handed over to community based agencies.

Conclusions

- ▶ When the interdisciplinary team is both responsible for co-ordination of the discharge and for the continued rehabilitation in the home environment, fewer people die or are dependent on assistance in their personal ADL. The cost of health care does not appear to increase in short term follow ups, which means that the intervention/service is most likely cost effective. Today, most hospitals in Sweden have not implemented this service model.
- ▶ The scientific evidence is insufficient to assess the effects, when the interdisciplinary team is only responsible for the discharge but not the continued rehabilitation in the home environment for elderly patients after stroke.
- ▶ The initial hospital stay is shorter when an interdisciplinary team is involved as compared to conventional care.

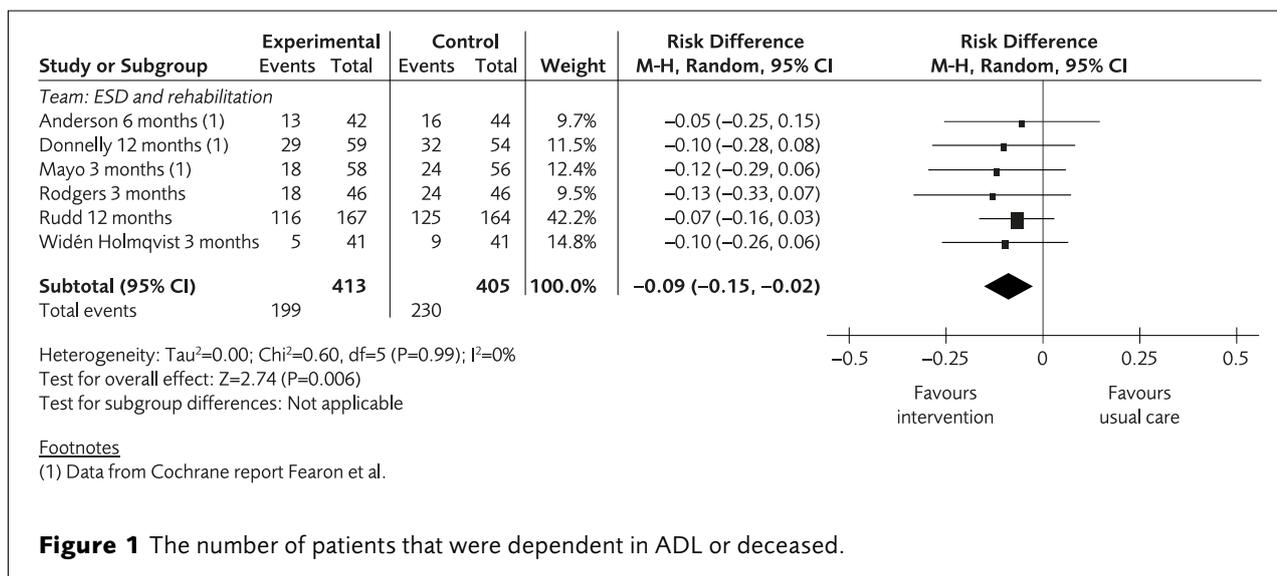


Figure 1 The number of patients that were dependent in ADL or deceased.

Results

When the interdisciplinary team was responsible for both the ESD and the rehabilitation at home, fewer patients died or were dependent in ADL (Figure 1, moderate scientific evidence, ⊕⊕⊕○). There was also weak support, in favor of the intervention, for improved instrumental/extended ADL (SMD 0.13 (-0.02; 0.28)), increased patients and caregiver satisfaction with care ((RD 0.08 (-0.01; 0.18) and (0.09 (-0.04; 0.21)) respectively) and reduced caregiver burden (SMD -0.17 (-0.46; 0.11)), but no statistically significant difference was demonstrated (low scientific evidence, ⊕⊕○○).

When the interdisciplinary team was only responsible for the ESD, the scientific evidence was insufficient for all outcomes (⊕○○○).

Health economics

Compared to usual care, ESD and continued rehabilitation in the home environment appears to reduce the initial length of hospital stay, without increasing the need for outpatient care, home help services, home modifications, assistive technologies or help from relatives. Since the intervention increased survival and reduced dependency in personal ADL for the elderly patients after stroke without increasing the total cost, it is most likely that the intervention is cost effective.

Practice study

We performed a mail-based survey and found that most of the hospitals in Sweden have not implemented an ESD model where the interdisciplinary team coordinated both the discharge from hospital and provided rehabilitation and care in the home environment.

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