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Conference abstract

## Implementation of a telerehabilitation program in an EHSD model of care for persons with a stroke

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### Abstract

**Purpose:** The aim of this study is to use an advanced telerehabilitation system in the context of an IHC service to find out: in which specific situations telerehabilitation enriches the home treatment; if it is feasible to use the telerehabilitation gear in patients home; tendencies concerning the effect of training in relation to improvement in arm function.

**Context:** The increasing number of survivors following acute events such as stroke are enlightening new needs to guarantee appropriate care and quality of life support at home. A potential application of telerehabilitation is to deliver home services. The World Health Organisation (WHO) Europe Regional Office considers as a critical issue in Western-countries the fragmented delivery of health and social services. Research on this topic has been called at the last European Community Call Health-2007-3.1.6: Continuity of Clinical Care.

**Data sources:** A Danish HTA shows that EHSD improved the ADL function and reduces both the time of stay in hospital and the risk of hard endpoint. Empowerment of the EHSD model is encouraged by means of an already tested telerehabilitation approach, in order to improve functional patients outcomes with a resulting better allocation of resources and saving costs. Within an already running Early Home Support Discharge (EHSD) project model for persons with stroke we implement a telerehabilitation approach.

**Case description:** The EHSD model provide an enrolment at 10 days from the stroke event for persons meeting the following criteria: 25<age<85 years, living in a participating municipalities, Fugl-Meyer Upper Extremity (F-M UE)>0, De Renzi test>62, Albert test=36, Mini Mental State Examination (MMSE)>24.

Mental illness, dementia, severe language disturbances, pregnancy, former acquired brain injury and transfer to another unit were considered as exclusion criteria.

In the EHSD program eight home-therapy sessions were provided during the in-charge time (hospital stay included), with at minimum two sessions provided after the hospital discharge. We implement the tele-treatment (based on the remote control of an already tested virtual reality device for motor treatment) in the month after hospital discharge, at minimum one hour/three times/week.

Primary outcomes: overall mortality, hospital readmission rate, costs, EQoL, interview addressing acceptability, usability and feasibility.

Secondary outcomes: F-M UE, Reaching Performance Scale, MMSE, Ashworth and FIM.

**Conclusion and discussion:** We expect that an enriched EHSD model can be accepted by patients and caregivers improving functions and saving costs.

## **Keywords**

**homecare, stroke, telerehabilitation**

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PowerPoint available from: <http://www.integratedcare.org/Portals/0/congresses/Jorgensen%20and%20Tuolla%204-6.pdf>