

## **A Home-based Therapy Programme in an Acute Hospital? A Pilot Evaluation of an Early Supported Discharge Programme for Acute Stroke Patients in Singapore**

Zhenzhen Chen<sup>1</sup>, Jia Yen Eng<sup>1</sup>, Bernard Chan<sup>2</sup>

<sup>1</sup>Rehabilitation Centre, National University Hospital, Singapore, Singapore, <sup>2</sup>Medicine, National University Hospital, Singapore, Singapore

**Introduction:** Early Supported Discharge (ESD) aims to accelerate discharge from hospital with the provision of rehabilitation and support in a community setting. Studies in the United Kingdom, Scandinavia and Australia have shown positive outcomes for stroke patients receiving home-based therapy services following early discharge from hospital. To determine the applicability of this practice model in Singapore, an ESD programme for stroke patients has been set up in an acute hospital.

**Objectives:** This pilot study aimed to evaluate the ESD programme for acute stroke patients in the National University Hospital, Singapore.

**Methods:** The intervention consists of home-based rehabilitation conducted by an occupational therapist and a physiotherapist, with weekly discussions on patients' progress with the neurologist. Patient outcomes were assessed using the Functional Independence Measure (FIM), Frenchay Activities Index (FAI) and Modified Rankin Scale (mRS) pre- and post-ESD. The duration of hospital stay was recorded as a secondary outcome.

**Results:** A total of 174 patients (male 58%, female 42%; mean age=65.6 years) were enrolled into the ESD programme from July 2007 to October 2009. The mean duration of the ESD programme was 5 weeks. There was a statistically significant improvement of 15.2 points on the FIM (mean FIM score pre-ESD=97.8, post-ESD=113.0) and 9.6 points on the FAI (mean FAI score pre-ESD=1.2, post-ESD=10.8). There was 69.6% of patients with moderate to severe disability (mRS scores 3 to 5) pre-ESD compared with 20.6% post-ESD. The mean length of stay in the acute hospital was 5.1 days for patients enrolled in the ESD programme compared to 11.3 days for patients transferred to rehabilitation facilities after discharge.

**Conclusion:** ESD after stroke improves patients' functional outcomes in mobility, activities of daily living and participation in household and community activities. It also frees up hospital beds with potential cost-savings. A multidisciplinary team approach in providing intensive post-stroke rehabilitation at home is a feasible practice model in Singapore.

**Practice Implications:** Occupational therapists have an important role in ESD services to maximise patients' functional recovery and participation in their own environment post-stroke. Long-term follow-up of stroke patients is recommended to evaluate if patients return to their premorbid functional abilities.