University of Glasgow

Hankey, G.J. and Langhorne, P. (2006) *Services for reducing the duration of hospital care for acute stroke patients.* Stroke, 37 (1). pp. 276-277. ISSN 0039-2499

http://eprints.gla.ac.uk/23083/

Deposited on: 23 January 2012

Enlighten – Research publications by members of the University of Glasgow
http://eprints.gla.ac.uk

Stroke
JOURNAL OF THE AMERICAN HEART ASSOCIATION
American Stroke Association
A Division of American Heart Association

Services for Reducing the Duration of Hospital Care for Acute Stroke Patients

Graeme J. Hankey and Peter Langhorne

Stroke 2006, 37:276-277: originally published online December 8, 2005
doi: 10.1161/01.STR.0000195128.01213.4b
Stroke is published by the American Heart Association. 7272 Greenville Avenue, Dallas, TX 72514
Copyright © 2005 American Heart Association. All rights reserved. Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/37/1/276

Subscriptions: Information about subscribing to Stroke is online at
http://stroke.ahajournals.org//subscriptions/

Permissions: Permissions & Rights Desk, Lippincott Williams & Wilkins, a division of Wolters Kluwer Health, 351 West Camden Street, Baltimore, MD 21202-2436. Phone: 410-528-4050. Fax: 410-528-8550. E-mail:
journalpermissions@lww.com

Reprints: Information about reprints can be found online at
http://www.lww.com/reprints

Downloaded from http://stroke.ahajournals.org/ at GLASGOW UNIV LIB on January 23, 2012

Cochrane Corner

Section Editor: Graeme J. Hankey, MD, FRCP

Services for Reducing the Duration of Hospital Care for Acute Stroke Patients

Peter Langhorne, PhD, FRCP

In most developed countries, stroke patients are admitted to hospital for a period of acute care and rehabilitation. Services have been developed to try and accelerate discharge home and reduce the duration of hospital stay. These have been termed early supported discharge (ESD) services.

Objectives

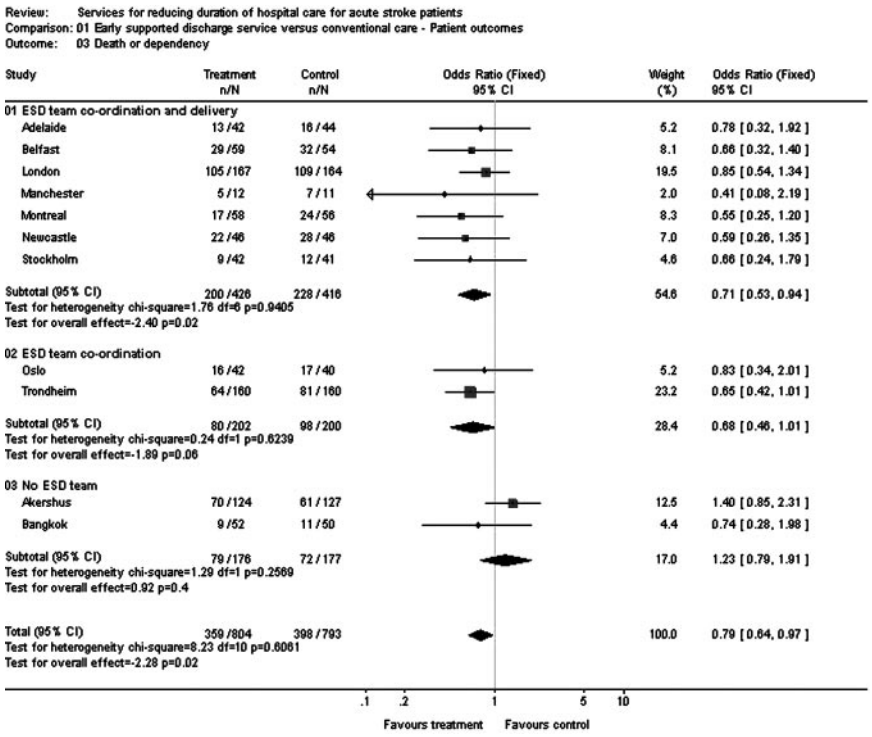
This review tested whether ESD services could reduce length of stay and improve patient outcome compared with conventional hospital care and discharge arrangements.

Search Strategy

We searched the Cochrane Specialist Register of Controlled Trials (to August 2004). The contact trialist of all eligible studies was then contacted and asked to provide details of their intervention and control services and to provide individual patient data.

Selection Criteria

We included randomized controlled trials (RCTs) that compared an ESD service with conventional care for hospitalized



The graph shows the effect of early supported discharge services compared with conventional care. Results are expressed as the odds ratio and 95% CI for death or dependency (recorded a median of 6 months poststroke).

Received September 19, 2005; accepted October 11, 2005.

From the Academic Section of Geriatric Medicine, Glasgow, UK.

Correspondence to Peter Langhorne, PhD, FRCP, Academic Section of Geriatric Medicine, Third Floor University Block, Royal Infirmary, Glasgow, UK G31 2ER. E-mail pl11m@clinmed.gla.ac.uk

Note: The full text of this review is available in the Cochrane Library (for subscribers: http://www3.interscience.wiley.com/cgi-bin/mrwhome/106568753/HOME). The full article should be cited as: Early Supported Discharge Trialists. Services for reducing duration of hospital care for acute stroke patients. In: *The Cochrane Database of Systematic Reviews*, Issue 2, 2005.

(*Stroke.* 2006;37:276-277.)

© 2005 American Heart Association, Inc.

***Stroke* is available at http://www.strokeaha.org** **DOI: 10.1161/01.STR.0000195128.01213.4b**

Downloaded from http://stroke.ahajournals.org/ at GLASGOW UNIV LIB on January 23, 2012

stroke patients. The aim of the ESD service was to accelerate discharge from hospital and provide rehabilitation and support in a community setting.

Outcomes

The primary outcome was the composite end point of death or dependence (Barthel index <19/20 or Rankin score >2) recorded at the end of scheduled follow-up. Secondary outcomes were death, death or requiring long-term institutional care, activities of daily living (ADL) score, subjective health status, mood or depression, patient satisfaction, caregiver outcomes (subjective health status, mood score, satisfaction), and resource outcomes (length of stay and hospital readmission).

Main Results

We identified 11 RCTs (n=1597 participants) that met the selection criteria. Nine RCTs used concealed randomization procedures and 10 used blinded outcome assessment. Median follow-up was 6 months (range 3 to 12 months). In 7 trials, a single multidisciplinary ESD team coordinated a hospital discharge and provided rehabilitation at home. In 2 RCTs, the ESD team coordinated discharge and immediate postdischarge care but not ongoing rehabilitation. Two RCTs evaluated uncoordinated community services or input from healthcare volunteers.

Patients who received ESD services showed reduced odds of death or dependence (Figure) than those who received conventional care. Similar results were seen for the outcome of death or long-term institutional care (odds ratio, 0.74; 95% CI, 0.56 to 0.96; $P=0.02$). Significant differences were not seen for death, ADL score, subjective health status, or mood scores. Patients who received ESD services were more likely to report satisfaction with outpatient services (odds ratio, 1.6; 95% CI, 1.1 to 2.4; $P=0.02$). Carer outcomes did not differ between groups. The length of hospital stay was 7.7 days (CI, 4.2 to 10.7) shorter than the ESD group. Hospital readmission rates were similar between groups (27% versus 25%).

In subgroup analysis, no interaction of the ESD effect was observed with patient age, sex, or the presence of a carer. ESD services appeared to be more effective in patients with moderate stroke (baseline Barthel index of ≥10 of 20) and when provided by a coordinated multidisciplinary ESD team.

Reviewer's Conclusion

For stroke patients, in-hospital input and postdischarge support from an ESD service can accelerate discharge home and increase the chance of being independent in the long term. The best results were seen with well-coordinated ESD teams and with patients with less severe stroke.

More research is required to define the important characteristics of effective ESD services, their effectiveness in more dispersed rural communities, and to define the balance of cost and benefit for different patient and service groups.

KEY WORDS: hospitalization ■ randomized controlled trials ■ rehabilitation

Downloaded from http://stroke.ahajournals.org/ at GLASGOW UNIV LIB on January 23, 2012