Please find below the results of your literature search request.

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Thank you

Literature search results

Search completed for: 
Search required by: 15th May 2013 
Search completed on: 15th May 2013 
Search completed by: Richard Bridgen

Search details
Occupational therapy outcome measures for patients with stroke on an acute ward

Resources searched
NHS Evidence; TRIP Database; Cochrane Library; AMED; BNI; EMBASE; HMIC; MEDLINE; PsychINFO; Google Scholar

Database search terms: outcome* adj2 measure*; OUTCOME ASSESSMENT; PROMs; outcome*; outcome* adj2 (indicator* OR KPI* OR framework* OR benchmark* OR standard* OR target*); "occupational therap*" adj2 (outcome* OR measure* OR indicator* OR KPI* OR framework* OR benchmark* OR standard* OR target*); occupation* adj2 therap*; exp OCCUPATIONAL THERAPY; stroke*; exp STROKE; "brain attack*"; exp CEREBROVASCULAR DISORDERS; “cerebrovascular accident*”. TIA; “transient isch* attack*”; exp CEREBRAL ISCHEMIA; cerebral adj2 thrombos*; cerebral adj2 embol*; subarachnoid adj2 haemorrhage*; subarachnoid adj2 hemorrhage*; ACUTE CARE; CRITICAL CARE; EMERGENCY CARE; SUBACUTE CARE; acute adj2 car*; “subacute care”; “critical care” OR "intensive care" OR ICU OR CCU OR "high dependency unit*"; “stroke unit*”; STROKE UNITS; INTENSIVE CARE UNITS; “emergency care”; “accident and emergency”; casualty

Evidence search string(s): ("occupational therapy" OR "occupational therapist" OR "occupational therapists") (outcome OR outcomes) (measure OR measures OR indicator OR indicators OR standard OR standards) (stroke OR strokes OR "cerebrovascular accident" OR "cerebrovascular accidents" OR TIA OR TIA’s OR “transient ischaemic attack” OR “transient ischaemic attacks”) (acute OR emergency OR "intensive care" OR "critical care" OR subacute OR ICU OR CCU)

Google search string(s): (~"occupational therapy") (outcome OR outcomes) (~measures OR ~indicators OR ~standards OR ~benchmarks) (~stroke OR ~"cerebrovascular accident") (acute OR ~"intensive care" OR ~"critical care" OR "subacute care" OR ~"stroke unit")
## Summary

There is plenty of research in outcomes following treatment interventions, but less on outcome measures. There are a few systematic reviews at the start of the Google Scholar section and I have included some papers from the National Institute for Health research which you may find useful. It was also not clear whether you were interested in outcome measures themselves or in their application to patients, so the search will have retrieved both variables.

## Guidelines

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<td>Guideline 108: Management of patients with stroke or TIA: Assessment, investigation, immediate management and secondary prevention</td>
<td>2008</td>
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### Evidence-based reviews

**National Institute of Health Research**
- *Continuity of care in stroke and its relation to outcomes* 2007
- *General Health Status Measures — Cognitive Impairment* 2007
- *A randomised controlled comparison of alternative strategies in stroke care* 2007

**NHS Evidence**
- 2010 Evidence update on stroke rehabilitation
- 2009 Evidence update on stroke rehabilitation

### Published research

#### 1. Role of aphasia in discharge location after stroke

**Author(s)** Gonzalez-Fernandez M., Christian A.B., Davis C., Hillis A.E.

**Citation:** Archives of Physical Medicine and Rehabilitation, May 2013, vol./iss. 94/5(851-855), 0003-9993;1532-821X (May 2013)

**Publication Date:** May 2013

**Abstract:** Objective: To evaluate language deficits after acute stroke and their association with post-acute care at a setting other than home. We hypothesized that deficits in language comprehension would be associated with discharge to a setting other than home after adjustment for physical/occupational therapy (PT/OT) needs. Design: Secondary analysis of prospectively collected data. Discharge location, demographic characteristics (age, sex, race), and the presence of PT/OT recommendations were abstracted from the medical record. Setting: Acute stroke unit at a tertiary medical center. Participants: Left hemispheric stroke patients (N=152) within 24 hours of event. Interventions: The following tasks were administered: (a-b) oral and written naming of pictured objects, (c) oral naming with tactile input (tactile naming), (d-f) oral reading, oral spelling, and repetition of words and pseudowords, (g) written spelling to dictation, (h) spoken word-picture verification (i.e., auditory comprehension), and (i) written word-picture verification (i.e., written word comprehension). Main Outcome Measure: Discharge to a setting other than home. Results: Of 152 cases, 88 were discharged home and 64 to another setting. Among stroke subjects discharged to a setting other than home, 63.6% had auditory comprehension deficits compared with 42.9% of those discharged home (P=.03). Deficits in auditory and reading comprehension and oral spelling to dictation were significantly associated with increased odds of discharge to a setting other than home after adjustment for age and PT/OT recommendations. Conclusions: Cases with deficits in auditory comprehension, reading comprehension, and oral spelling to dictation had increased odds of being discharged to settings other than home. Early evaluation of these language deficits and prompt treatment may allow patients who would otherwise be discharged to an institution to go home. Further research is needed to design and evaluate individualized treatment protocols and their effect on discharge recommendations.

**Source:** EMBASE

#### 2. Daily treatment time and functional gains of stroke patients during inpatient rehabilitation.

**Author(s)** Wang H, Camicia M, Terdiman J, Mannava MK, Sidney S, Sandel ME

**Citation:** PM&R, February 2013, vol./iss. 5/2(122-8), 1934-1482;1934-1563 (2013 Feb)

**Publication Date:** February 2013

**Abstract:** OBJECTIVE: To study the effects of daily treatment time on functional gain of patients who have had a stroke. DESIGN: A retrospective cohort study. SETTING: An inpatient rehabilitation hospital (IRH) in northern California. PARTICIPANTS: Three hundred
sixty patients who had a stroke and were discharged from the IRH in 2007. INTERVENTIONS: Average minutes of rehabilitation therapy per day, including physical therapy, occupation therapy, speech and language therapy, and total treatment. MAIN OUTCOME MEASURES: Functional gain measured by the Functional Independence Measure, including activities of daily living, mobility, cognition, and the total of the Functional Independence Measure (FIM) scores. RESULTS: The study sample had a mean age of 64.8 years; 57.4% were men and 61.4% were white. The mean total daily therapy time was 190.3 minutes, and the mean total functional gain was 26.0. A longer daily therapeutic duration was significantly associated with total functional gain ($r = .23$, $P = .0094$). Patients who received a total therapy time of $<3.0$ hours per day had significantly lower total functional gain than those treated $\geq 3.0$ hours. No significant difference in total functional gain was found between patients treated $\geq 3.0$ but $<3.5$ hours and $\geq 3.5$ hours per day. The daily treatment time of physical therapy, occupational therapy, and speech and language therapy also was significantly associated with corresponding subscale functional gains. In addition, hemorrhagic stroke, left brain injury, earlier IRH admission, and a longer IRH stay were associated with total functional improvement. CONCLUSIONS: The study demonstrated a significant relationship between daily therapeutic duration and functional gain during IRH stay and showed treatment time thresholds for optimal functional outcomes for patients in inpatient rehabilitation who had a stroke. Copyright 2013 American Academy of Physical Medicine and Rehabilitation. Published by Elsevier Inc. All rights reserved.

Source: Medline

3. To study the efficacy of acupuncture in improving functional mobility in acute stroke e a randomized, controlled and single blinded study

Author(s) Yip H.S.F.

Citation: Hong Kong Physiotherapy Journal, December 2011, vol./is. 29/2(99), 1013-7025 (December 2011)

Publication Date: December 2011

Abstract: Background and Purpose: The global burden caused by stroke is coming more and more severe. Good and early recovery can minimize post-stroke disability and dependency. This study was designed to investigate the efficacy of acupuncture in improving functional mobility in acute stroke. Methods: A randomized controlled trial (RCT) was performed in the acute stroke unit (ASU) and rehabilitation wards in a Hong Kong hospital. 120 acute stroke patients were randomly selected into acupuncture group and control group, each 60 patients. Acupuncture group patients received acupuncture treatment (once a day, 5 days in a week and totally 3 weeks) on top of the conventional treatment in the stroke pathway (from acute to rehabilitation period). Control group patients received the conventional treatment throughout the stroke pathway only. Modified Rivermead Mobility Index (MRMI), Modified Functional Ambulation Category (MFAC) and Modified Barthel Index (MBI) were used to assess the functional outcomes. Experienced physiotherapists and occupational therapists, who were blinded to the patients' allocation, evaluated the outcomes at before and after intervention, also at predischarge. Results: There were statistically significant differences before and after intervention in both acupuncture group and control group but no significant differences were found between the two groups. Clinically, 29% of acupuncture group patients gained the second highest level "indoor walker" of MFAC whilst only 7% in control group at the predischarge status. Moreover, in the postdischarge phone visit, a higher proportion of patients in the acupuncture group were able to return home living and achieve outdoor walk independently at 6 months after discharge compared with those of control group (69% and 43% versus 55% and 28% respectively). Conclusion: Adding acupuncture to conventional treatment may have some benefit on improving mobility in acute stroke patients compared with conventional treatment only, but more study is required.

Source: EMBASE

Abstract: Aim: This study examined variations in management of cognitive impairment post-stroke among occupational therapists and factors associated with variations in practice. Methods: Canada-wide cross-sectional telephone survey. Clinicians' practices were examined using standard patient cases (vignettes). Setting: Acute care, inpatient rehabilitation and community-based sites providing stroke rehabilitation in all Canadian provinces. Participants: Occupational therapists (n=663) working in stroke rehabilitation as identified through provincial licensing bodies. Main outcome measures: Type and frequency of cognition-related problem identification, assessment and intervention use. Results: Respectively, 69%, 83% and 31% of occupational therapists responding to the acute care, inpatient rehabilitation and community-based vignettes recognised cognition as a potential problem. Standardised assessment use was prevalent: 70% working in acute care, 77% in inpatient rehabilitation and 58% in community-based settings indicated using standardised assessments: 81%, 83% and 50%, respectively, indicated using general cognitive interventions. Conclusion: The Mini-Mental State Examination was often used incorrectly to monitor patient change. Executive function, a critical component of post-stroke assessment, was rarely addressed. Interventions were most often general (e.g. incorporated in activities of daily living) rather than specific (e.g. cueing, memory aids, computer-based retraining). 2011 The Authors. Australian Occupational Therapy Journal 2011 Occupational Therapy Australia.

Source: EMBASE

Available in fulltext from Australian Occupational Therapy Journal at the ULHT Library and Knowledge Services' eJournal collection

Available in fulltext from Australian Occupational Therapy Journal at EBSCOhost

5. Baseline Severity of Upper Limb Hemiparesis Influences the Outcome of Low-Frequency rTMS Combined With Intensive Occupational Therapy in Patients Who Have Had a Stroke

Author(s) Kakuda W., Abo M., Kobayashi K., Takagishi T., Momosaki R., Yokoi A., Fukuda A., Ito H., Tominaga A.

Citation: PM and R, June 2011, vol./is. 3/6(516-522), 1934-1482 (June 2011)

Publication Date: June 2011

Abstract: Objective: To clarify whether the efficacy of combined low-frequency repetitive transcranial magnetic stimulation (rTMS) and intensive occupational therapy (OT) depends on baseline severity of upper limb hemiparesis after stroke. Design: Retrospective comparative study. Setting: Department of Rehabilitation Medicine at a university hospital. Subjects: Fifty-two patients who had sustained a stroke and had upper limb hemiparesis (age: 57 +/- 13 years; time after onset: 50 +/- 33 months). Based on the Brunnstrom stage for hand-fingers at admission, patients were divided into a Stage 3 group (n = 13), a Stage 4 group (n = 20), and a Stage 5 group (n = 19). Interventions: During a 15-day hospitalization, each patient underwent 22 sessions of 20-minute low-frequency rTMS that was applied to the non-lesional hemisphere and 120 minutes of intensive OT (one-on-one training and self-training). Main outcome measures: Motor function of the affected upper limb was evaluated with the Fugl-Meyer Assessment and the Wolf Motor Function Test (WMFT) on the days of admission and discharge. WMFT performance time data were log-transformed. Results: The Fugl-Meyer Assessment score increased significantly in all patients (from 40.2 +/- 12.2 to 43.4 +/- 11.8 points, P < .001), but the score increase was significantly larger in the Stage 4 group than in the other two groups (2.1 +/- 2.3 points in the Stage 3 group, 5.1 +/- 2.9 points in the Stage 4 group, and 2.3 +/- 1.8 points in the Stage 5 group, all P < .05). Similarly, the WMFT performance time decreased significantly in all patients (from 3.27 +/- 0.90 to 2.96 +/- 1.10, P < .001), but the difference in the extent of the decrease was significant between Stage 3 and Stage 4 groups and between Stage 3 and Stage 5 groups (0.04 +/- 0.07 in the Stage 3 group, 0.41 +/- 0.29 in the Stage 4 group, and 0.35 +/- 0.31 in the Stage 5 group, all P < .01). Conclusions: Our 15-day protocol of
low-frequency rTMS and intensive OT is potentially promising in improving motor function of the affected upper limb. The extent of motor improvement by the intervention seemed to be influenced by the severity of upper limb hemiparesis at study entry. 2011 American Academy of Physical Medicine and Rehabilitation.

**Source:** EMBASE

6. Chedoke Arm and Hand Activity Inventory-9 (CAHAI-9): a multi-centre investigation of clinical utility... including commentary by Pooyania S and Schuster C.

**Author(s)** Rowland, Tennille, Gustafsson, Louise, Turpin, Merrill, Henderson, Robert, Read, Stephen

**Citation:** International Journal of Therapy & Rehabilitation, 01 May 2011, vol./is. 18/5(290-298), 17411645

**Publication Date:** 01 May 2011

**Abstract:** Aims: Assessment of upper limb ability is a common focus of the occupational therapist in acute stroke. Chedoke Arm and Hand Activity Inventory - 9 (CAHAI-9) is an activity based assessment developed to include relevant functional tasks and to be sensitive to clinically important changes in upper limb function. The aim of this study was to investigate the clinical utility of CAHAI-9 in an acute stroke setting. Methods: Thirty-two occupational therapist participants from eight hospitals completed 100 CAHAI-9 assessments, on 92 patients with stroke, over six months. Occupational therapists completed questionnaires regarding the clinical utility of CAHAI-9. Findings: The mean patient age was 69 years and mean CAHAI-9 score was 39/63. The mean administration time was 16 minutes. Eighty-three percent of therapists indicated they would use CAHAI-9 again. Eight-seven percent agreed CAHAI-9 was useful for patients with mild and moderate (91%) upper limb deficits however only 25% agreed for severe deficits. Conclusions: The findings indicate that CAHAI-9 shows promise as an upper limb ability assessment in acute stroke, with therapists indicating they would use CAHAI-9 again. However, further investigation of the scoring issues may be warranted before CAHAI-9 is ready for clinical use in Australian acute care settings.

**Source:** CINAHL

Available in fulltext from International Journal of Therapy and Rehabilitation at EBSCOhost

7. Provision of acute stroke care and associated factors in a multiethnic population: Prospective study with the South London Stroke Register

**Author(s)** Addo J., Bhalla A., Crichton S., Rudd A.G., McKevitt C., Wolfe C.D.A.

**Citation:** BMJ, March 2011, vol./is. 342/7796(538), 0959-8146;1756-1833 (05 Mar 2011)

**Publication Date:** March 2011

**Abstract:** Objectives: To investigate time trends in receipt of effective acute stroke care and to determine the factors associated with provision of care. Design: Population based stroke register. Setting South London. Participants: 3800 patients with first ever ischaemic stroke or primary intracerebral haemorrhage registered between January 1995 and December 2009. Main outcome measures: Acute care interventions, admission to hospital, care on a stroke unit, acute drugs, and inequalities in access to care. Results: Between 2007 and 2009, 5% (33/620) of patients were still not admitted to a hospital after an acute stroke, particularly those with milder strokes, and 21% (124/584) of patients admitted to hospital were not admitted to a stroke unit. Rates of admission to stroke units and brain imaging, between 1995 and 2009, and for thrombolysis, between 2005 and 2009, increased significantly (P<0.001). Black patients compared with white patients had a significantly increased odds of admission to a stroke unit (odds ratio 1.76, 95% confidence interval 1.35 to 2.29, P<0.001) and of receipt of occupational therapy or physiotherapy (1.90, 1.21 to 2.97, P=0.01), independent of age or stroke severity. Patients with motor or swallowing deficits were also more likely to be admitted to a stroke unit (1.52, 1.12 to 2.06, P=0.001 and 1.32, 1.02 to 1.72, P<0.001, respectively). Length of stay in hospital decreased significantly between 1995 and 2009 (P<0.001). The odds of brain imaging were
lowest in patients aged 75 or more years (P=0.004) and those of lower socioeconomic status (P<0.001). The likelihood of those with a functional deficit receiving rehabilitation increased significantly over time (P<0.001). Patients aged 75 or more were more likely to receive occupational therapy or physiotherapy (P=0.002). Conclusion Although the receipt of effective acute stroke care improved between 1995 and 2009, inequalities in its provision were significant, and implementation of evidence based care was not optimal.

Source: EMBASE

Available in print at Pilgrim Hospital Staff Library
Available in print at Louth County Hospital Medical Library
Available in print at Grantham Hospital Staff Library
Available in print at Lincoln County Hospital Professional Library

8. Peripheral arterial disease is associated with favourable outcome of severe stroke. Results from the Austrian stroke unit registry

Author(s) Matz K., Teuschl Y., Seyfang L., Brainin M.

Citation: Cerebrovascular Diseases, May 2010, vol./is. 29/(262), 1015-9770 (May 2010)
Publication Date: May 2010

Abstract: Background: Many factors are known to have a negative influence on outcome but little is known what determines favourable outcome of severe ischemic strokes. Purpose: To investigate factors differentiating outcome of severe strokes. Methods: The study is based on the Austrian Stroke Unit Registry which prospectively collects data from pts. with acute stroke admitted to stroke units (SU). Between 2004 and 2009 29115 case records were available for analysis. Analysis was confined to 2696 pts. with severe ischemic stroke (NIHSS >=14). Outcome data derived from in-hospital follow up at the time of discharge from the SU and from three months follow. Favourable outcome was defined as decrease of >=8 points in the NIHSS between admission and discharge from the SU and/or as mRS 0-2 after three months. Data were compared in an univariate analysis and in a multivariate model. Results: For outcome at discharge from SU data from 2362 pts. (79%) were available, data from 334 pts. were incomplete or missing. Factors associated with favourable outcome were treatment with rtPA (p <0.0001, OR 1.86, 95%CI 1.5 - 2.3) and occupational therapy at the SU (p=0.0004, OR 1.5, 95%CI 1.2 - 1.88). Related to unfavourable outcome were age >70, placement of nasogastric tube or urinary indwelling catheter, complications like cerebral edema, heart failure, pneumonia or progressive stroke. For outcome after three months data from 1177 (43%) pts. were analysed. Favourable outcome was associated with treatment with rtPA (p=0.0001, OR 2.3, 95%CI 1.54 - 3.5) and with peripheral arterial disease as risk factor (p=0.02, OR 2.7, 95%CI 1.17 - 6.18). Smoking was the only other risk factor that was more prevalent in the group with favourable outcome (24% vs. 14.3%, p=0.007 in univariate analysis). Discussion: The seemingly paradoxical association of peripheral arterial disease (and smoking) with favourable outcome has not been previously described. It is hypothesized that peripheral arterial disease acts as remote ischemic preconditioning mechanism in subjects with cerebrovascular disease.

Source: EMBASE

Available in fulltext from Cerebrovascular Diseases at EBSCOhost

9. Does organized inpatient care decrease the incident risk of stroke-associated pneumonia?

Author(s) Saposnik G., Finlayson O., Silver F., Asllani E., Hall R., Selchen D., Kapral M.K.

Citation: Stroke, April 2010, vol./is. 41/4(e288), 0039-2499 (01 Apr 2010)
Publication Date: April 2010

Abstract: Introduction: Organized care has shown to decreased morbidity and mortality after stroke. Pneumonia is one of the most common complications after stroke affecting -10% of patients. Limited information is available on the risk of pneumonia in patients
receiving escalating levels of organized care. Hypothesis: Higher level of access to organized in-patient stroke care is associated with decreased incident risk of stroke-associated pneumonia (SAP) and decreased mortality among patients with pneumonia. Methods: A retrospective cohort study of all consecutive acute ischemic stroke patients admitted to institutions in the Registry of Canadian Stroke Network (RCSN) from July 2003 to March 2007. The organized care index (OCI) (as reported in Stroke 2008; 39:2522-30) was used capture intensity of organized care. The index ranges from 0 to 3, including: presence of occupational therapy/physiotherapy (=1), stroke team assessment (=1), and admission to a stroke unit (=1). We also looked at the effect of stroke unit admission on the likelihood of SAP. Primary Outcome: Radiologically confirmed Stroke-associated pneumonia, developed in the first 30 days post stroke. We then compared the differential effect of OCI on stroke fatality at 30 days among patients with and without pneumonia. Results: Over the study period, 8,251 patients with ischemic stroke were identified from the RCSN. Overall, SAP developed in 587 (7.1%) patients. The risk of pneumonia was lower among patients receiving more organized care (OCI = 2-3) compared to those receiving less care (OCI=0-1) (6.9% vs. 7.8%; RR 0.89; 95%CI 0.74-1.07). Similar findings were observed for patients admitted to stroke unit (6.9% vs. 7.6%; RR 0.91, 95%CI 0.78-1.07). Among stroke patients with Pneumonia; those that received higher intensity of stroke care (OCI 2-3) had lower 30 day mortality compared to those receiving less intensive stroke care (OCI 0-1) [30.5% vs. 60.5%; HR 0.50 (95%CI 0.41-0.61)]. A similar pattern was observed when we looked specifically at stroke unit admission; 30 day mortality was lower among pneumonia patients admitted to a stroke unit [35% vs. 41.0%; HR 0.86 (95%CI 0.69-1.06)]. Conclusions: The prevalence of pneumonia (7.1%) among ischemic stroke patients admitted to Regional stroke centers in Ontario is lower than reported in other observational studies and metanalysis. We have shown a non-significant, but lower incident risk of pneumonia among stroke patients receiving more comprehensive organized stroke care (OCI 2-3) and admission to stroke units. Lower 30 day mortality rates was observed among ischemic stroke with and without pneumonia admitted to stroke unit or exposed to higher access to organized care.

Source: EMBASE
Available in fulltext from Stroke at Highwire Press
Available in fulltext from Stroke at the ULHT Library and Knowledge Services' eJournal collection

10. Screening for depression after stroke: developing protocols for the occupational therapist.

Author(s) Kneebone I, Baker J, O'Malley H

Citation: British Journal of Occupational Therapy, 01 February 2010, vol./is. 73/2(71-76), 03080226

Publication Date: 01 February 2010

Abstract: Depression after stroke is common and can have a substantial effect on rehabilitation outcome. Despite this, the routine screening that has been recommended is only taking place around half the time. Occupational therapists have training that well positions them to provide screening. In a local stroke unit, the psychology and occupational therapy departments worked together, considering relevant research, clinical considerations (such as identifying suicidal ideas) and practical issues (such as ease of administration and patient compliance) to determine screening protocols that could be enacted by occupational therapists. Two protocols were developed, one for people under 65 years of age and one for people aged 65 years or older.

Source: CINAHL

11. Normal movement and functional approaches to rehabilitate lower limb dressings following stroke: a pilot randomised controlled trial.

Author(s) Mew, M

Citation: British Journal of Occupational Therapy, Feb 2010, vol. 73, no. 2, p. 64-70, 0308-
Abstract: Research by randomised controlled trial at Poole Hospital into the feasibility of comparing normal movement and functional approaches to rehabilitate lower limb dressing in the subacute phase of stroke recovery. Using 3 outcome measures the study examined the time patients in an acute stroke rehabilitation unit took to put on their own pants, trousers or skirt, socks or stockings and shoes. [(BNI unique abstract)] 32 references

Source: BNI

12. Review of upper limb ability assessments in acute stroke care, from a practice perspective... including commentary by Ansari NN and Renner CI.

Author(s) Rowland TJ, Gustafsson L, Henderson RD, Turpin M, Read SJ

Citation: International Journal of Therapy & Rehabilitation, 01 December 2009, vol./is. 16/12(678-684), 17411645

Publication Date: 01 December 2009

Source: CINAHL

Available in fulltext from International Journal of Therapy and Rehabilitation at EBSCOhost

13. Disparities in Outpatient and Home Health Service Utilization Following Stroke: Results of a 9-Year Cohort Study in Northern California


Citation: PM and R, November 2009, vol./is. 1/11(997-1003), 1934-1482 (November 2009)

Publication Date: November 2009

Abstract: Objective: To examine whether there are disparities in utilization of outpatient and home care services after stroke. Design: Retrospective cohort study. Setting: The Kaiser Permanente of Northern California health care system, which provides health care for approximately 3.3 million members. Participants: A total of 11,119 patients hospitalized for a stroke between 1996 and 2003 and followed for 1 year. Main Outcome Measures: Receipt of outpatient rehabilitation (physical therapy, occupational therapy, speech pathology, or physical medicine and rehabilitation/physiatry visits), and/or home health care. Results: There were significant differences in outpatient rehabilitation visits and home health enrollment during the year after acute care discharge for all the parameters under study. Older age and female gender were associated with less outpatient rehabilitation treatment, but these subpopulations were more likely to be enrolled in home health care. Non-whites, patients from urban areas, those with ischemic strokes, and those with longer acute care hospital stays had relatively more outpatient rehabilitation and were also more likely to be enrolled in the home health program. In addition, patients living in geographic areas with a median household income of $80,000 or more had significantly more outpatient rehabilitation visits than did patients living in lower income areas. Conclusions: Variations in outpatient rehabilitation visits and in home health care exist in this large integrated health system in terms of age, gender, race/ethnicity, residence area, type of stroke, and length of stay in an acute care hospital. The Kaiser Permanente integrated health care system seems to have outpatient stroke rehabilitation and home health programs that are providing care without disparities in relation to non-white populations, but other disparities appear to exist that may be related to socioeconomic factors, referral patterns, family support systems, or other cultural factors that have not been identified. 2009 American Academy of Physical Medicine and Rehabilitation.

Source: EMBASE

OBJECTIVE: To assess the effectiveness of a formalised stroke service in a regional hospital.

DESIGN: A pretest post-test design.

SETTING: An acute stroke unit in a regional health service.

Participants: Overall sample comprised 80 patients with 36 (45.0%) men. Forty patients (19 men, 21 women) comprised pre-intervention group and 40 (17 men, 23 women) post-intervention group.

INTERVENTIONS: Establishment of an acute stroke unit.

MAIN OUTCOME MEASURE(S): Increased frequency in meeting key performance indicators for acute stroke care as recommended by National Stroke Foundation.

RESULTS: On discharge, fewer survivors in the pre-intervention group were independent (n = 5) and returned home (n = 9) than the post-intervention group (n = 13) for both independent and returned home. More survivors in the pre-intervention group were discharged to aged care or inpatient rehab (n = 22) than the post-intervention group (n = 12). Within required time frames, the frequency of CT scans (chi(2) (1, 80) = 4.1, P < 0.05), swallow assessments (chi(2) (1, 80) = 9.0, P < 0.01), occupational therapy assessments (chi(2) (1, 80) = 14.5, P < 0.0001), multidisciplinary meetings involving patient and family (chi(2) (1, 80) = 19.9, P < 0.0001) and self-management plans (chi(2) (1, 80) = 10.9, P < 0.05) all increased significantly.

CONCLUSIONS: Our evaluation demonstrated that introduction of formalised stroke care to a regional hospital resulted in improved compliance with key performance indicators and better patient outcomes. Thus evidence-based specialised stroke care can be offered with confidence in regional populations.

Source: Medline

Available in fulltext from Australian Journal of Rural Health at EBSCOhost

Available in fulltext from Australian Journal of Rural Health at EBSCOhost

15. Excellence in regional stroke care: An evaluation of the implementation of a stroke care unit in regional australia

Author(s) McCann L., Groot P., Charnley C., Gardner A.

Citation: Australian Journal of Rural Health, October 2009, vol./is. 17/5(273-278), 1038-5282;1440-1584 (October 2009)

Publication Date: October 2009

Abstract: Objective: To assess the effectiveness of a formalised stroke service in a regional hospital. Design: A pretest post-test design. Setting: An acute stroke unit in a regional health service. Participants: Overall sample comprised 80 patients with 36 (45.0%) men. Forty patients (19 men, 21 women) comprised pre-intervention group and 40 (17 men, 23 women) post-intervention group. Interventions: Establishment of an acute stroke unit. Main outcome measure(s): Increased frequency in meeting key performance indicators for acute stroke care as recommended by National Stroke Foundation. Results: On discharge, fewer survivors in the pre-intervention group were independent (n = 5) and returned home (n = 9) than the post-intervention group (n = 13) for both independent and returned home. More survivors in the pre-intervention group were discharged to aged care or inpatient rehab (n = 22) than the post-intervention group (n = 12). Within required time frames, the frequency of CT scans (chi<sup>2</sup> (1, 80) = 4.1, P < 0.05), swallow assessments (chi<sup>2</sup> (1, 80) = 9.0, P < 0.01), occupational therapy assessments (chi<sup>2</sup> (1, 80) = 14.5, P < 0.0001), multidisciplinary meetings involving patient and family (chi<sup>2</sup> (1, 80) = 19.9, P < 0.0001) and self-management plans (chi<sup>2</sup> (1, 80) = 10.9, P < 0.05) all increased significantly. Conclusions: Our evaluation demonstrated that introduction of formalised stroke care to a regional hospital resulted in improved compliance with key performance indicators and better patient outcomes. Thus evidence-based specialised stroke care can be offered with confidence in regional populations. 2009 South West Healthcare. Journal compilation 2009 National Rural Health Alliance Inc.

Source: EMBASE
16. Quality of care and length of hospital stay among patients with stroke.

**Author(s)** Svendsen ML, Ehlers LH, Andersen G, Johnsen SP

**Citation:** Medical Care, 01 May 2009, vol./is. 47/5(575-582), 00257079

**Publication Date:** 01 May 2009

**Abstract:** BACKGROUND: The relationship between quality of care and economic outcome measures, including length of stay (LOS), among patients with stroke remains to be clarified. OBJECTIVES: To determine whether quality of care is associated with LOS among patients with stroke. METHODS: In this population-based follow-up study, we included 2636 patients with stroke who had been admitted to dedicated stroke units in Aarhus County, Denmark, from 2003 to 2005. Quality of care was measured as fulfillment of 12 criteria: early admission to a stroke unit, early antiplatelet therapy, early anticoagulant therapy, early computed tomography/magnetic resonance imaging scan, early water swallowing test, early mobilization, early intermittent catheterization, early deep venous thromboembolism prophylaxis, early assessment by a physiotherapist and an occupational therapist, and early assessment of nutritional and constipation risk. Data were analyzed by linear regression clustered at the stroke units by multilevel modeling. RESULTS: Median LOS was 13 days (25th and 75th percentiles: 7, 33). Meeting each quality of care criteria was associated with shorter LOS. Adjusted relative LOS ranged from 0.67 (95% confidence interval (CI): 0.61-0.73) to 0.87 (95% CI: 0.81-0.93). The association between meeting more quality of care criteria and LOS followed a dose-response effect, that is, patients who fulfilled between 75% and 100% of the quality of care criteria were hospitalized about one-half as long as patients who fulfilled between 0% and 24% of the criteria (adjusted relative LOS: 0.53, 95% CI: 0.48-0.59). CONCLUSIONS: Higher quality of care during the early phase of stroke was associated with shorter LOS among patients with stroke.

**Source:** CINAHL

17. Early use of constraint induced therapy (CIT) following a CVA: a case study examining this treatment during the acute rehabilitation phase of recovery... cerebral vascular accident.

**Author(s)** Thorne AJ

**Citation:** Acute Care Perspectives, 01 March 2009, vol./is. 18/1(12-18), 15519147

**Publication Date:** 01 March 2009

**Abstract:** Purpose and Background Constraint-induced therapy (CIT) has been known to yield improvements in movements of patients with chronic hemiparesis. CIT is a technique used in rehabilitative therapy to encourage use of an affected extremity by restraint (or limiting fine motor control) of the unaffected arm. The use of CIT has had limited documentation in the acute setting. This case study examines the use of CIT in the acute rehabilitation setting for one week with a one month follow-up series of testing. Following the CIT trial, the client had significant return of his motor function in his right upper extremity. Further investigation of CIT in the acute setting is warranted to corroborate the use of this protocol as an effective acute rehabilitative treatment.

**Source:** CINAHL

18. A pilot study of activity-based therapy in the arm motor recovery post stroke: a randomized controlled trial.
Objective: To determine the efficacy of activity-based therapies using arm ergometer or robotic or group occupational therapy for motor recovery of the paretic arm in patients with an acute stroke (\(\leq 4\) weeks) admitted to an inpatient rehabilitation facility, and to obtain information to plan a large randomized controlled trial.

Design: Prospective, randomized controlled study.

Setting: Stroke unit in a rehabilitation hospital.

Subjects: Thirty patients with an acute stroke (\(\leq 4\) weeks) who had arm weakness (Medical Research Council grade 2 or less at the shoulder joint).

Intervention: Occupational therapy (OT) group (control) (\(n = 10\)), arm ergometer (\(n = 10\)) or robotic (\(n = 10\)) therapy group. All patients received standard, inpatient, post-stroke rehabilitation training for 3 hours a day, plus 12 additional 40-minute sessions of the activity-based therapy.

Main measures: The primary outcome measures were discharge scores in the Fugl-Meyer Assessment Scale for upper limb impairment, Motor Status Scale, total Functional Independence Measure (FIM) and FIM-motor and FIM-cognition subscores.

Results: The three groups (OT group versus arm ergometer versus robotic) were comparable on clinical demographic measures except the robotic group was significantly older and there were more haemorrhagic stroke patients in the arm ergometer group. After adjusting for age, stroke type and outcome measures at baseline, a similar degree of improvement in the discharge scores was found in all of the primary outcome measures.

Conclusion: This study suggests that activity-based therapies using an arm ergometer or robot when used over shortened training periods have the same effect as OT group therapy in decreasing impairment and improving disability in the paretic arm of severely affected stroke patients in the subacute phase.

Source: CINAHL

19. Escalating levels of access to in-hospital care and stroke mortality

Author(s) Saposnik G., Fang J., O'Donnell M., Hachinski V., Kapral M.K., Hill M.D.

Citation: Stroke, September 2008, vol./is. 39/9(2522-2530), 0039-2499 (01 Sep 2008)

Publication Date: September 2008

Abstract: BACKGROUND AND PURPOSE: Organized stroke care is an integrated approach to managing stroke to improve stroke outcomes by ensuring that optimal treatment is offered. However, limited information is available comparing different levels of organized care. Our aim was to determine whether escalating levels of organized care can improve stroke outcomes. METHODS: Cohort study including patients with acute ischemic stroke between July 2003 and March 2005 in the Registry of the Canadian Stroke Network (RCSN). The RCSN is the largest clinical database of patients with acute stroke patients seen at selected acute care hospitals in Canada. As stroke unit admission does not automatically imply receipt of comprehensive care, we created the organized care index to represent different levels of access to organized care ranging from 0 to 3 as determined by the presence of occupational therapy/physiotherapy, stroke team assessment, and admission to a stroke unit. The primary end point was early stroke mortality. Secondary end points include 30-day and 1-year mortality. RESULTS: Overall, 3631 ischemic stroke patients were admitted to 11 hospitals. Seven day stroke mortality was 6.9% (249/3631), 30-day stroke mortality was 12.6% (457/3631), and 1-year stroke mortality was 23.6% (856/3631). Risk-adjusted 7-day mortality was 2.0%, 3.2%, 7.8%, and 22.5% for organized care index of 3, 2, 1, and 0. Higher level of care was associated with lower adjusted mortality (for organized care index 3, OR 0.03, 95% CI 0.02 to 0.07 for 7-day mortality; OR 0.09, 95% CI 0.05 to 0.17 for 30-day mortality; and OR 0.40, 95% CI 0.25 to 0.64 for 1-year mortality). CONCLUSIONS: Higher level of access to care was associated with lower stroke mortality rates. Establishing a well-organized and multidisciplinary system of stroke care will help improve the quality of service delivered and reduce the burden of stroke.

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Source: EMBASE

Available in fulltext from Stroke at Highwire Press

Available in fulltext from Stroke at the ULHT Library and Knowledge Services’ eJournal
20. Using the Australian Therapy Outcome Measures for Occupational Therapy (AusTOMs-OT) to measure outcomes for clients following stroke.

Author(s) Unsworth CA

Citation: Topics in Stroke Rehabilitation, 01 July 2008, vol./is. 15/4(351-364), 10749357

Publication Date: 01 July 2008

Abstract: PURPOSE: To examine a range of measures used to document client outcomes following stroke, describe the Australian Therapy Outcome Measure for Occupational Therapy (AusTOMs-OT) as a tool suitable to measure multiple outcomes, and provide an overview of three outcomes research programs using this measure. The AusTOMs-OT was developed to measure global therapy outcomes and offers therapists a choice of 12 function-focused scales (including self-care, domestic life, community life, upper limb function). Therapists evaluate the client's status globally in relation to four domains: the underlying impairment, activity limitation, participation restriction, and distress/well-being.

METHOD: The first study presents a comparison of outcomes for clients at two Australian acute care facilities on the self-care scale (n = 82). Similarly, the second study presented is a comparison of stroke rehabilitation outcomes using the self-care scale for clients in Sweden and Australia (n = 70). The final study is an Australian benchmarking study using the upper limb scale (n = 40). RESULTS: All three studies demonstrated that clients improved during therapy as measured on the four domains of AusTOMs-OT. Study 3 examined client outcomes at one facility against an agreed benchmark using the AusTOMs-OT upper limb scale and found that clients attained benchmark outcomes.

CONCLUSIONS: A variety of outcome measures are available for clinicians to document the progress clients make during stroke rehabilitation. However, the AusTOMs-OT can measure global outcomes across multiple domains in just a few moments. Three studies reporting outcomes for clients with stroke using the AusTOMs-OT demonstrate its utility in documenting client change during therapy and for comparing or benchmarking services.

Source: CINAHL

21. Quality of Care and Mortality among Patients with Stroke: A Nationwide Follow-up Study

Author(s) Ingeman A., Pedersen L., Hundborg H.H., Petersen P., Zielke S., Mainz J., Bartels P., Johnsen S.P.

Citation: Medical Care, January 2008, vol./is. 46/1(63-69), 0025-7079 (January 2008)

Publication Date: January 2008

Abstract: Background: The relationship between process and outcome measures among patients with stroke is unclear. Objectives: To examine the association between quality of care and mortality among patients with stroke in a nationwide population-based follow-up study. Methods: Using data from The Danish National Indicator Project, a quality improvement initiative with participation of all Danish hospital departments caring for patients with stroke, we identified 29,573 patients hospitalized with stroke between January 13, 2003 and October 31, 2005. Quality of care was measured in terms of 7 specific criteria: early admission to a stroke unit, early initiation of antiplatelet or oral anticoagulant therapy, early examination with computed tomography/magnetic resonance imaging scan, and early assessment by a physiotherapist, an occupational therapist, and of nutritional risk. Data on 30- and 90-day mortality rates were obtained through the Danish Civil Registration System. Results: Six of 7 of these criteria were associated with lower 30- and 90-day mortality rates. Adjusted mortality rate ratios corrected for clustering by department ranged from 0.41 to 0.83. We found indication of an inverse dose-response relationship between the number of quality of care criteria met and mortality; the lowest mortality rate was found among patients whose care met all criteria compared with patients whose care failed to meet any criteria (ie, adjusted 30-day mortality rate ratios: 0.45, 95% confidence interval: 0.24g0.66). When analyses were stratified by age and sex, the dose-response relationship was found in all subgroups. Conclusions: Higher quality of care during the early phase of stroke was associated with substantially lower mortality rates. 2007 by Lippincott
22. Hospital extra. Improving stroke outcomes: rehabilitation strategies that work.

Author(s): Alverzo JP, Brigante MA, McNish MD

Citation: American Journal of Nursing, 01 November 2007, vol./is. 107/11(0), 0002936X

Publication Date: 01 November 2007

Source: CINAHL

Available in fulltext from AJN, American Journal of Nursing at East Midlands Ovid Archive Collection

Available in fulltext from American Journal of Nursing at the ULHT Library and Knowledge Services’ eJournal collection

23. Actual vs best practice for families post-stroke according to three rehabilitation disciplines.

Author(s): Rochette A, Korner-Bitensky N, Desrosiers J

Citation: Journal of Rehabilitation Medicine (Stiftelsen Rehabiliteringsinformation), 01 September 2007, vol./is. 39/7(513-519), 16501977

Publication Date: 01 September 2007

Abstract: OBJECTIVE: To investigate occupational therapists', physiotherapists' and speech language pathologists’ family-related rehabilitation practice post-stroke and its association with clinician and environmental variables. METHODS: A Canadian cross-sectional telephone survey was conducted on 1755 clinicians. Three case studies describing typical patients after stroke receiving acute care, in-patient rehabilitation, or community rehabilitation, and including specific descriptors regarding family stress and concern, were used to elicit information on patient management. RESULTS: One-third of the sample identified a family-related problem and offered a related intervention, but only 12/1755 clinicians indicated that they would typically use a standardized assessment of family functioning. Working in the community out-patient setting was associated (OR 9.16), whereas working in a rehabilitation in-patient setting was negatively associated (OR 0.58) with being a problem identifier, the reference group being acute care. Being a PT (OR 0.53) or an SLP (OR 0.49) vs an OT was negatively associated with being a problem identifier, whereas being older (OR 1.02) or working in Ontario (OR 1.58) was associated with being a problem identifier. To work in a community out-patient setting (OR 2.43), being older clinicians (OR 1.02) or not perceiving their work environment being supportive of an ongoing professional learning (OR 1.72) was associated with being an intervention user, whereas being a PT (OR 0.50) was negatively associated with being a user. CONCLUSION: For these 3 disciplines, the prevalence of a family-related focus is low post-stroke. Given the increasing evidence regarding the effectiveness of family-related interventions on stroke outcomes, it is imperative that best practice is implemented.

Source: CINAHL


Author(s): Menon-Nair A, Korner-Bitensky N, Ogourtsova T

Citation: Stroke (00392499), 01 September 2007, vol./is. 38/9(2556-2562), 00392499

Publication Date: 01 September 2007

Abstract: BACKGROUND AND PURPOSE: Unilateral spatial neglect (USN) is a disabling feature of stroke, and its identification and management are critical for optimizing patient outcomes. This study examined USN problem identification, assessment, and treatment among clinicians working in stroke rehabilitation. METHODS: This report was based on a Canada-wide survey of 253 occupational therapists providing inpatient stroke rehabilitation.
RESULTS: Eighty percent (n=202) recognized USN as a potential problem, 27% (n=67) reported using standardized USN assessment tools, and 58% (n=147) indicated using USN interventions. Working on a stroke unit and younger age were among the variables explaining 7% to 19% of the variability in USN problem identification, assessment, and intervention use. CONCLUSIONS: Although USN problem identification was high, clinicians were unlikely to use standardized assessment tools or evidence-based interventions to effectively manage this serious impairment.

Source: CINAHL

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Author(s) Nikopoulou-Smyrni P, Nikopoulos CK

Citation: Disability & Rehabilitation, 30 July 2007, vol./is. 29/14(1129-1138), 09638288

Publication Date: 30 July 2007

Abstract: Purpose. The main objective was the development and collection of preliminary data on the application of a new integrated clinical reasoning model (Anadysis) with patients suffering a stroke or Transient Ischemic Attack (TIA). Method. Twelve healthcare professionals working in the neurological and the Accident and Emergency (A&E) units of an acute general hospital participated and experimental control was achieved by employing a pre-test post-test control group experimental design. Members of the control group used the current reasoning model of their discipline whereas the new integrated model was used by the members of the experimental group irrespective of their professions. Outcomes were measured by scoring on a protocol derived from the UK National Clinical Guidelines for Stroke divided into the three main clinical reasoning processes. Results. Collectively, data from 186 protocols based on the medical records of 49 patients showed that median percentages of correct responses in clinical reasoning were substantially higher for the experimental group by using the new integrated model. Conclusions. This study will inform the healthcare professionals about a new effective integrated clinical reasoning model which incorporates the complex processes of diagnosis, planning and treatment as a whole. This study may also become an important consideration in the further development of clinical decision support systems within the scientific area of health informatics.

Source: CINAHL

26. Can we improve the statistical analysis of stroke trials? Statistical reanalysis of functional outcomes in stroke trials

Author(s) Bath P.M.W., Gray L.J., Collier T., Pocock S., Carpenter J.

Citation: Stroke, June 2007, vol./is. 38/6(1911-1915), 0039-2499 (June 2007)

Publication Date: June 2007

Abstract: BACKGROUND AND PURPOSE - Most large acute stroke trials have been neutral. Functional outcome is usually analyzed using a yes or no answer, eg, death or dependency versus independence. We assessed which statistical approaches are most efficient in analyzing outcomes from stroke trials. METHODS - Individual patient data from acute, rehabilitation and stroke unit trials studying the effects of interventions which alter functional outcome were assessed. Outcomes included modified Rankin Scale, Barthel Index, and “3 questions”. Data were analyzed using a variety of approaches which compare 2 treatment groups. The results for each statistical test for each trial were then compared. RESULTS - Data from 55 datasets were obtained (47 trials, 54 173 patients). The test results differed substantially so that approaches which use the ordered nature of functional outcome data (ordinal logistic regression, t test, robust ranks test, bootstrapping the difference in mean rank) were more efficient statistically than those which collapse the data into 2 groups (chi; ANOVA, P<0.001). The findings were consistent across different types and sizes of trial and for the different measures of functional outcome.
CONCLUSIONS - When analyzing functional outcome from stroke trials, statistical tests which use the original ordered data are more efficient and more likely to yield reliable results. Suitable approaches included ordinal logistic regression, t test, and robust ranks test. 2007 American Heart Association, Inc.

Source: EMBASE
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Author(s) Phipps S, Richardson P

Citation: American Journal of Occupational Therapy, May 2007, vol./is. 61/3(328-34), 0272-9490;0272-9490 (2007 May-Jun)

Publication Date: May 2007

Abstract: The purpose of this study was to determine whether 155 ethnically diverse clients with traumatic brain injury (TBI) and stroke (cerebrovascular accident; CVA) who received occupational therapy services perceived that they reached self-identified goals related to tasks of daily life as measured by the Canadian Occupational Performance Measure (COPM). This study found that a statistically and clinically significant change in self-perceived performance and satisfaction with tasks of daily life occurred at the end of a client-centered occupational therapy program (p < .001). There were no significant differences in performance and satisfaction between the TBI and CVA groups. However, the group with right CVA reported a higher level of satisfaction with performance in daily activities than the group with left CVA (p = .03). The COPM process can effectively assist clients with neurological impairments in identifying meaningful occupational performance goals. The occupational therapist also can use the COPM to design occupation-based and client-centered intervention programs and measure occupational therapy outcomes.

Source: Medline
Available in fulltext from American Journal of Occupational Therapy at the ULHT Library and Knowledge Services' eJournal collection
Available in fulltext from American Journal of Occupational Therapy at Highwire Press

28. Is stroke unit care portable? A systematic review of the clinical trials

Author(s) Langhorne P., Dey P., Woodman M., Kalra L., Wood-Dauphinee S., Patel N., Hamrin E.

Citation: Age and Ageing, July 2005, vol./is. 34/4(324-330), 0002-0729;1468-2834 (July 2005)

Publication Date: July 2005

Abstract: Background: It is not known if mobile stroke teams can achieve the good results seen in trials of geographically discrete stroke wards (stroke units). Objective: To establish the effectiveness of mobile stroke teams. Design: Systematic review of controlled clinical trials that compared peripatetic systems of organised stroke care (stroke team care) with alternative hospital services. Methods: Systematic review and meta-analysis (using Cochrane Collaboration methodology and involving the primary trialists). Clinical outcomes included death, dependency, the need for institutional care and measures of the process of care such as the delivery of key investigations and treatments. Results: Six clinical trials (1,085 patients) were identified; five (781 patients) compared some form of stroke team care with conventional care in general medical wards and one (304 patients) compared team care with a comprehensive stroke unit. Compared with care in general wards, stroke team care improved some aspects of the process of care, but clinical outcomes were similar. Compared with a comprehensive stroke unit, stroke team patients were significantly less likely to survive (P< 0.001), return home (P< 0.001) or regain independence (P< 0.0001). Most aspects of the process of care were also poorer than in the stroke unit.
Conclusions: Care from a mobile stroke team had no major impact on death, dependency or the need for institutional care. The Author 2005. Published by Oxford University Press. All rights reserved.

**Source:** EMBASE

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Available in **fulltext** from *Age and Ageing* at *Highwire Press*

Available in **fulltext** from *Age & Ageing* at **the ULHT Library and Knowledge Services’ eJournal collection**

29. A study to assess the effect of nursing interventions at the weekend for people with stroke.

**Author(s)** Davidson I, Hillier VF, Waters K, Walton T, Booth J

**Citation:** Clinical Rehabilitation, 01 March 2005, vol./is. 19/2(126-137), 02692155

**Publication Date:** 01 March 2005

**Abstract:** **OBJECTIVE:** To examine whether additional therapy provided by nurses at the weekend improved the physical outcome for people with stroke on a stroke rehabilitation unit. **DESIGN:** A single blind randomized controlled trial. **SETTING:** A 16-bed stroke rehabilitation unit in the north of England. **SUBJECTS:** Forty-one people with stroke were randomized by means of minimization to intervention and control groups. **INTERVENTIONS:** The intervention group received additional exercise at the weekend provided by the nursing staff and the control group received their usual care. Both groups received usual care during weekdays. **MAIN OUTCOME MEASURES:** The Motor Assessment Scale (MAS), the Barthel Index (BI) and length of stay in hospital. **RESULTS:** No significant differences were found between the groups in terms of MAS and BI at discharge but there was a borderline significant difference between the groups on unconditional testing in terms of length of stay in hospital and on the stroke unit (p = 0.05 and p = 0.07 respectively). However, these findings were in favour of the control group. On conditional testing (adjusting for BI on admission and age) these differences disappeared (p = 0.14 and p = 0.15) for length of stay in hospital and on the stroke unit respectively. **CONCLUSIONS:** The present study indicates that an increase in one-to-one input by nurses for people with stroke did not lead to a measurable difference in outcome in this small study.

**Source:** CINAHL

Available in **print** at *Lincoln County Hospital Professional Library*

30. A randomized controlled trial of early supported discharge and continued rehabilitation at home after stroke: five-year follow-up of patient outcome.

**Author(s)** Thorsén A, Widén Holmqvist L, de Pedro-Cuesta J, von Koch L

**Citation:** Stroke (00392499), 01 February 2005, vol./is. 36/2(297-302), 00392499

**Publication Date:** 01 February 2005

**Abstract:** **BACKGROUND AND PURPOSE:** The optimal organization of rehabilitation services after discharge from a stroke unit has not been determined. This study sought to evaluate the effect of early supported discharge and continued rehabilitation at home (ESD), in terms of patient outcome 5 years after stroke and changes in selected data over time. **METHODS:** Eighty-three patients from Southwest Stockholm, mildly or moderately impaired 5 to 7 days after acute stroke, were enrolled in a randomized controlled trial. The core components of the ESD service were initial treatment in a stroke unit and the involvement of an outreach team to deliver and coordinate home-based rehabilitation in partnership with the patient. At the 5-year follow-up, measures used to assess patient outcome included survival, motor capacity, dysphasia, activities of daily living (ADL), social activities, subjective dysfunction, and self-reported falls. **RESULTS:** Fifty-four patients (30 in the intervention group and 24 in the control group) were evaluated 5 years after stroke, at which time a significantly larger proportion of patients in the intervention group were independent in extended ADL and active in household activities. **CONCLUSIONS:** This
ESD service has a beneficial effect on extended ADL 5 years after stroke for mildly to moderately impaired patients.

**Source:** CINAHL

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Available in fulltext from **Stroke** at **the ULHT Library and Knowledge Services’ eJournal collection**

**31. Quality of stroke care within a hospital: effects of a mobile stroke service.**

**Author(s)** van der Walt A, Gilligan AK, Cadilhac DA, Brodtmann AG, Pearce DC, Donnan GA

**Citation:** Medical Journal of Australia, February 2005, vol./is. 182/4(160-3), 0025-729X:0025-729X (2005 Feb 21)

**Publication Date:** February 2005

**Abstract:** OBJECTIVE: An Australian stroke services study (SCOPES) has developed a framework to compare different forms of acute stroke services, the gold standard being localised stroke units. We aimed to use this framework to assess changes in the quality of stroke care over time as a sequential audit process.DESIGN AND SETTING: A retrospective medical record audit comparing 100 sequential stroke admissions (July 2002 to June 2003) two years after institution of a mobile stroke service (MSS) with 100 historical controls (September 1998 to October 1999) at a 260-bed hospital in Melbourne. The MSS results were also compared with stroke units in SCOPES.MAIN OUTCOME MEASURES: Adherence to quality indicators and standard measures of outcome (complications, length of stay and discharge disability) after implementing the MSS.RESULTS: Significant improvements were seen in prophylaxis for deep-vein thrombosis, incontinence management, premorbid function documentation, frequent neurological observations and early occupational therapy. The MSS demonstrated fewer severe complications (9% versus 24%; P = 0.004), reduced median length of stay (discharged patients: 12.0 days versus 18.5 days; P = 0.003) and more patients were independent at discharge (32% versus 9%; P < 0.001). Comparison with SCOPES stroke units showed our MSS could improve in incontinence management and appropriate use of antiplatelet therapy.CONCLUSION: Institution of the MSS was associated with improvements in the quality of stroke care. This study demonstrates application of an audit procedure for quality improvement in hospital stroke management and the potential to improve stroke services in smaller centres.

**Source:** Medline

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K Salter, JW Jutai, R Teasell, ... - Disability & ..., 2005 - informahealthcare.com
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DF Edwards, M Hahn, C Baum... - Journal of Stroke and ..., 2006 - Elsevier
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