Rehabilitation

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Jason Ovens
Head of Library & Knowledge Services

Healthcare you can Trust
Title: The effect of poststroke delirium on short-term outcomes of elderly patients undergoing rehabilitation.

Citation: Journal of Geriatric Psychiatry and Neurology, June 2013, vol./is. 26/2(63-68), 0891-9887;1552-5708 (Jun 2013)
Author(s): Turco, Renato, Bellelli, Giuseppe, Morandi, Alessandro, Gentile, Simona, Trabucchi, Marco

Abstract: Objectives: Delirium is a common poststroke complication, but its prevalence and effect in rehabilitation settings is unknown. We retrospectively assessed the prevalence of delirium in elderly patients undergoing poststroke rehabilitation and its association with short-term outcomes. Methods: All patients (aged >=65 years) admitted to the Department of Rehabilitation between November 2007 and October 2011 after a recent stroke were screened for delirium. Delirium was diagnosed using the confusion assessment method. Multiple logistic regressions were used to evaluate the association between delirium, institutionalization, and inhospital death, while multiple linear regressions were used for the association between delirium and functional recovery, defined in 3 different ways which include (1) measuring the relative functional gain of the Barthel index (BI-RFG); (2) the change in Barthel index (BI) walking subscore from admission to discharge; and (3) the change in Tinetti score from admission to discharge. Results: In all, 58 (33%) patients of the total 176 patients were consecutively admitted to our department with delirium. After adjustment for potential confounders, poststroke delirium (PSD) was an independent predictor of institutionalization (odds ratio [OR] = 7.23; 95% confidence interval [CI] = 4.79 to 10.91; P <= .0003) and inhospital death (OR = 4.26; 95% CI = 1.15 to 15.81; P = .03); PSD was not a predictor of functional recovery at discharge, neither using the BI-RFG (P = .96) nor using the change from admission to discharge of both the BI walking subscore (P = .57) and the Tinetti score (P = .61) as outcome measures. Conclusions: In elderly patients undergoing poststroke rehabilitation, delirium is an independent predictor of institutionalization and inhospital death, but it does not affect functional recovery. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract)

Title: A systematic review of the effectiveness of bowel management strategies for constipation in adults with stroke.

Citation: International Journal of Nursing Studies, 01 July 2013, vol./is. 50/7(1004-1010), 00207489
Author(s): Su Fee Lim, Childs, Charmaine

Abstract: Objective: Constipation is one of the most common medical complications of acute stroke. Currently, management strategies to guide clinical practice are limited. This review aimed to examine the effectiveness of bowel management strategies for constipation in adults with stroke. Design: A systematic review of randomised controlled trials or other quantitative research designs in the absence of randomised controlled trials was undertaken. Data sources: A comprehensive search of major electronic databases and all reference lists of relevant articles in the English language were performed from January 1990 up to March 2011. Review methods: Data were extracted and assessed by two independent reviewers. Due to differences in the study designs, the findings are presented in narrative form. Results: There were a total of three studies (two randomised controlled trials and one quasi-experimental study). One of the randomised controlled trials examined a single (once-only) structured nurse-led intervention and the other randomised controlled trial evaluated four bowel management programmes. Both studies yield improvements respectively in symptoms of bowel dysfunction and bowel training efficiency when the programme corresponded with the subjects' bowel patterns before the stroke onset. The quasi-experimental study compared the effectiveness of daily digital stimulation versus every other day and found higher bowel regularity with daily digital stimulation. Conclusion: Constipation management strategies are limited. This review suggests that structured bowel programmes and nurse-led intervention in bowel care have a significant effect in improving bowel evacuations.

Title: Eight weeks of individual compensatory memory training improved memory performance and diary use in people with severe traumatic brain injury.

Citation: Australian Occupational Therapy Journal, 01 June 2013, vol./is. 60/3(227-228), 00450766
Author(s): Swanton, Ruth, Brentnall, Jennie
Title: Evaluating a community-based stroke nursing education and rehabilitation programme for patients with mild stroke.

Citation: International Journal of Nursing Practice, 01 June 2013, vol./is. 19/3(249-256), 13227114
Author(s): Wang, Lee, Chen, Chiu-Mei, Liao, Wen-Chun, Hsiao, Chun-Yin

Abstract: This study evaluated whether mild stroke patients who received a community-based stroke nursing intervention had better stroke knowledge, behaviour and self-efficacy than those who were exposed to traditional education programmes. The intervention group consisted of sixty five stroke patients randomly selected from seven communities who received three 2-hour stroke interventions per week for 8 weeks. The normal care group consisted of sixty two stroke patients randomly selected from a medical centre who received a general stroke education programme. The stroke patients in two groups were assessed at baseline, after intervention and at the 6-month follow-up. At the 6-month follow-up, the intervention group demonstrated an improvement in the knowledge of stroke risk factors compared with the normal care group. Three months after education, the intervention group exhibited changes in the knowledge of stroke, social participation and self-efficacy compared with those at baseline. Also, self-efficacy was correlated with the knowledge of stroke risk factors after intervention and at the 6-month follow-up; self-efficacy was correlated with social participation after the 6-month follow-up. A community-based stroke nursing intervention might have effects on changes in the knowledge of stroke risk factors, social participation and self-efficacy.

Title: Responsiveness of measurements of lower-limb muscle strength obtained with a hand-held dynamometer from patients with stroke.

Citation: Isokinetics & Exercise Science, 01 June 2013, vol./is. 21/2(129-134), 09593020
Author(s): Bohannon, Richard W., Andrews, A. Williams, Glenney, Susan Sullivan

Abstract: BACKGROUND: The responsiveness of measurements obtained by hand-held dynamometry (HHD) is largely unexplored. OBJECTIVE: A secondary analysis of data from a clinical cohort of patients (N=55) admitted for inpatient rehabilitation following acute stroke was completed to determine the responsiveness of measures of lower extremity muscle strength. METHOD: The isometric strength of hip flexion, knee extension, and ankle dorsiflexion was measured bilaterally in 55 patients using HHD. Independence in bed-to-chair transfers, level ground gait, and stair negotiation was determined using an ordinal mobility scale. All measures were obtained at admission and discharge. RESULTS: Over the course of rehabilitation muscle strength increased significantly (p< 0.002) in all 3 lower limb muscle actions of both the weaker and stronger sides. Effect sizes (0.19-0.43) and standardized response means (0.45-0.79) were mostly small to moderate but tended to be greater on the weaker side than the stronger side. The minimum detectable change (95%) values ranged from 33.2 to 87.5 N and were higher on the stronger than on the weaker side. Receiver operating characteristic curve analysis for identifying minimal clinically important differences revealed cut-points between -12.9 and 52.9 Newtons for strength increases differentiating patients who did and did not demonstrate improved mobility. CONCLUSION: HHD is capable of detecting changes in lower limb strength after stroke but the responsiveness, as indicated by effect size, standardized response mean, minimum detectable change and minimal clinically importance is limited.

Title: Predictors of Sexual Functioning and Satisfaction 1 Year Following Traumatic Brain Injury: A TBI Model Systems Multicenter Study.

Citation: Journal of Head Trauma Rehabilitation, 01 May 2013, vol./is. 28/3(186-194), 08859701

Abstract: Objective: To investigate predictors of sexual functioning 1 year following traumatic brain injury (TBI). Design: Prospective cohort study. Setting: Community. Participants: A total of 255 persons with TBI (187 males; 68 females) who had been treated at 1 of 6 TBI Model Systems inpatient rehabilitation units and were living in the community. Main Measures: Derogatis Interview for Sexual Functioning-Self-Report
Global Satisfaction With Sexual Functioning (Global Sexual Satisfaction Index); Participation Assessment With Recombined Tools-Objective; Patient Health Questionnaire-9. Results: Older age, female gender, and more severe injury were associated with greater sexual dysfunction 1 year following injury. As age increased from 24 to 49 years, the odds of sexual impairment increased more than 3-fold (95% confidence interval: 1.82-5.88). Females had a 2.5 increase in odds of sexual impairment compared with males (95% confidence interval: 1.23-5.26). Greater social participation was predictive of better sexual functioning. Dissatisfaction with sexual functioning was predicted by older age and depression. Conclusions and Implications: Older persons and females appear to be at greater risk for sexual dysfunction after TBI and may benefit from specialized assessment and treatment services. Relationships were identified between social participation and sexual function and between depression and sexual satisfaction that may serve as clinical indicators for further assessment and intervention. Further research is needed to elucidate these relationships and identify effective clinical approaches.


Citation: Journal of Head Trauma Rehabilitation, 01 May 2013, vol./is. 28/3(202-210), 08859701
Author(s): Simpson, Grahame K., Sabaz, Mark, Daher, Maysaa

Abstract: Objective: Investigate the prevalence and clinical features of inappropriate sexual behavior (ISB) among a community-based cohort of clients of the New South Wales Brain Injury Rehabilitation program. Setting: All 11 community-based rehabilitation services of the statewide network. Participants: Five hundred seven clients with severe traumatic brain injury. Design: Cross-sectional multicentre study. Main Measures: Overt Behavior Scale, Disability Rating Scale, Sydney Psychosocial Reintegration Scale-2, Health of the Nation Outcome Scale-Acquired Brain Injury, Care and Needs Scale. Results: The point prevalence rate of ISBs was 8.9% (45/507) over the previous 3 months. Inappropriate sexual talk comprised 57.9% of all ISBs, followed by genital and nongenital touching behaviors (29.8%) and exhibitionism/public masturbation (10.5%). In 43 of 45 cases, ISBs were accompanied by other challenging behaviors, most often inappropriate social behavior, and/or aggression. Individuals who sustained more severe injuries and who were younger were significantly more likely to display ISBs. People displaying ISBs were more likely to display higher levels of challenging behaviors overall, lower levels of social participation, and more neuropsychiatric sequelae than 2 other groups: people displaying no challenging behaviors and people displaying challenging behaviors but no ISBs respectively. Conclusions: ISBs pose a complex clinical challenge among a minority of individuals with severe TBI.

Title: Falls in People With Multiple Sclerosis Who Use a Walking Aid: Prevalence, Factors, and Effect of Strength and Balance Interventions.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(616-621), 00039993
Author(s): Coote, Susan, Hogan, Neasa, Franklin, Sue

Abstract: Objectives: To investigate falls prevalence, factors associated with falling, and the effects of balance and strengthening interventions on falls in persons with multiple sclerosis (MS). Design: Baseline and posttreatment data from a randomized controlled trial. Setting: Community. Participants: People with MS (N=111) who use bilateral support for gait. Interventions: Group and one-on-one physiotherapy. Main Outcome Measures: Falls prevalence was assessed using retrospective recall. Demographic information was collected, impairments of body function were assessed, and results from the Berg Balance Scale, 6-minute walk test (6MWT), Multiple Sclerosis Impact Scale-29 version 2 physical and psychological scores, and the Modified Fatigue Impact Scale (MFIS) were obtained. Results: The prevalence of falls in a 3-month period was 50.5% among participants with MS, of whom 28% had more than 1 fall. Fallers had a greater physical (mean difference, −3.9; P=.048) and psychological (median difference, −4.5; P=.001) impact of MS and a greater impact of fatigue (mean difference, −9.4; P=.002). A logistic regression analysis found that the MFIS score made a unique, significant contribution to the model (odds ratio=1.04; 95% confidence interval, 1.018–1.079), correctly identifying 68% of fallers. A 10-week group physiotherapy intervention significantly reduced both the number of fallers (58.3% before to 22.9% after intervention, P=.005) and the number of falls (63 before to 25 after intervention, P=.001). Conclusions: The prevalence of falls is high in this population of persons with MS, and the impact of MS and of fatigue is
greater in fallers. Development and evaluation of interventions to reduce falls risk and the transition to faller or multiple faller status are required.

**Title: Does Postacute Care Site Matter? A Longitudinal Study Assessing Functional Recovery After a Stroke.**

**Citation:** Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(622-629), 00039993

**Author(s):** Chan, Leighton, Sandel, M. Elizabeth, Jette, Alan M., Appelman, Jed, Brandt, Diane E., Cheng, Pengfei, TeSelle, Marian, Delmonico, Richard, Terdiman, Joseph F., Rasch, Elizabeth K.

**Abstract:** Abstract: Objective: To determine the impact of postacute care site on stroke outcomes. Design: Prospective cohort study. Setting: Four northern California hospitals that are part of a single health maintenance organization. Participants: Patients with stroke (N=222) enrolled between February 2008 and July 2010. Intervention: Not applicable. Main Outcome Measure: Baseline and 6-month assessments were performed using the Activity Measure for Post Acute Care (AM-PAC), a test of self-reported function in 3 domains: Basic Mobility, Daily Activities, and Applied Cognition. Results: Of the 222 patients analyzed, 36% went home with no treatment, 22% received home health/outpatient care, 30% included an inpatient rehabilitation facility (IRF) in their care trajectory, and 13% included a skilled nursing facility (but not IRF) in their care trajectory. At 6 months, after controlling for important variables such as age, functional status at acute care discharge, and total hours of rehabilitation, patients who went to an IRF had functional scores that were at least 8 points higher (twice the minimally detectable change for the AM-PAC) than those who went to a skilled nursing facility in all 3 domains and in 2 of 3 functional domains compared with those who received home health/outpatient care. Conclusions: Patients with stroke may make more functional gains if their postacute care includes an IRF. This finding may have important implications as postacute care delivery is reshaped through health care reform.

**Title: Improved Clinical Status, Quality of Life, and Walking Capacity in Parkinson's Disease After Body Weight-Supported High-Intensity Locomotor Training.**

**Citation:** Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(687-692), 00039993

**Author(s):** Rose, Martin H., Løkkegaard, Annemette, Sonne-Holm, Stig, Jensen, Bente R.

**Abstract:** Abstract: Objective: To evaluate the effect of body weight-supported progressive high-intensity locomotor training in Parkinson's disease (PD) on (1) clinical status; (2) quality of life; and (3) gait capacity. Design: Open-label, fixed sequence crossover study. Setting: University motor control laboratory. Participants: Patients (N=13) with idiopathic PD (Hoehn and Yahr stage 2 or 3) and stable medication use. Interventions: Patients completed an 8-week (3 × 1h/wk) training program on a lower-body positive-pressure treadmill. Body weight support was used to facilitate increased intensity and motor challenges during treadmill training. The training program contained combinations of (1) running and walking intervals, (2) the use of sudden changes (eg, in body weight support and speed), (3) different types of locomotion (eg, chassé, skipping, and jumps), and (4) sprints at 50 percent body weight. Main Outcome Measures: The Movement Disorders Society-Unified Parkinson's Disease Rating Scale (MDS-UPDRS), Parkinson's Disease Questionnaire-39 items (PDQ-39), and the six-minute walk test were conducted 8 weeks before and pre- and posttraining. Results: At the end of training, statistically significant improvements were found in all outcome measures compared with the control period. Total MDS-UPDRS score changed from (mean ± 1SD) 58±18 to 47±18, MDS-UPDRS motor part score changed from 35±10 to 29±12, PDQ-39 summary index score changed from 22±13 to 13±12, and the six-minute walking distance changed from 576±93 to 637±90m. Conclusions: Body weight-supported progressive high-intensity locomotor training is feasible and well tolerated by patients with PD. The training improved clinical status, quality of life, and gait capacity significantly.

**Title: Effects of Mobilization and Tactile Stimulation on Chronic Upper-Limb Sensorimotor Dysfunction After Stroke.**

**Citation:** Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(693-702), 00039993

**Author(s):** Winter, Jacqueline M., Crome, Peter, Sim, Julius, Hunter, Susan M.
Abstract: Objective: To explore the effects of Mobilization and Tactile Stimulation (MTS) and patterns of recovery in chronic stroke (>12mo) when upper limb (UL) “performance” has reached a clear plateau. Design: Replicated single-system experimental study with 8 single cases using A-B-A design (baseline-intervention-withdrawal phases); length of baseline randomly determined; intervention phase involved 6 weeks of daily MTS to the contralesional UL. Setting: Community setting, within participants' place of residence. Participants: Individual stroke survivors (N=8; male-to-female ratio, 3:1; age range, 49–76y; 4 with left hemiplegia, 4 with right hemiplegia) discharged from ongoing therapy, more than 1 year post stroke (range, 14–48mo). Clinical presentations were varied across the sample. Interventions: Participants received up to 1 hour of daily (Monday to Friday) treatment with MTS to the UL for 6 weeks during the intervention (B) phase. Main Outcome Measures: Motor function (Action Research Arm Test [ARAT]) and motor impairment (Motricity Index [MI] arm section) of the UL. Results: UL performance was stable during baseline for all participants. On visual analysis, improvements in motor impairment were seen in all participants, and clinically significant improvements in motor function were seen in 4 of 8 participants during the intervention phase. Latency between onset of intervention and improvement ranged from 5 to 31 days (ARAT) and from 0 to 28 days (MI). Improvements in performance were maintained on withdrawal of the intervention. Randomization tests were not significant. Conclusions: MTS appears to improve UL motor impairment and functional activity many months, even years, after stroke onset. Improvement can be immediate, but more often there is latency between the start of intervention and improvement; recovery can be distal to proximal.

Title: Constraint-Induced Movement Therapy for the Lower Extremities in Multiple Sclerosis: Case Series With 4-Year Follow-Up.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(753-760), 00039993
Author(s): Mark, Victor W., Taub, Edward, Uswatte, Gitendra, Bashir, Khurram, Cutter, Gary R., Bryson, Camille C., Bishop-McKay, Staci, Bowman, Mary H.

Abstract: Objective: To evaluate in a preliminary manner the feasibility, safety, and efficacy of Constraint-Induced Movement therapy (CIMT) of persons with impaired lower extremity use from multiple sclerosis (MS). Design: Clinical trial with periodic follow-up for up to 4 years. Setting: University-based rehabilitation research laboratory. Participants: A referred sample of ambulatory adults with chronic MS (N=4) with at least moderate loss of lower extremity use (average item score ≤6.5/10 on the functional performance measure of the Lower Extremity Motor Activity Log [LE-MAL]). Interventions: CIMT was administered for 52.5 hours over 3 consecutive weeks (15 consecutive weekdays) to each patient. Main Outcome Measures: The primary outcome was the LE-MAL score at posttreatment. Secondary outcomes were posttreatment scores on laboratory assessments of maximal lower extremity movement ability. Results: All the patients improved substantially at posttreatment on the LE-MAL, with smaller improvements on the laboratory motor measures. Scores on the LE-MAL continued to improve for 6 months afterward. By 1 year, patients remained on average at posttreatment levels. At 4 years, half of the patients remained above pretreatment levels. There were no adverse events, and fatigue ratings were not significantly changed by the end of treatment. Conclusions: This initial trial of lower extremity CIMT for MS indicates that the treatment can be safely administered, is well tolerated, and produces substantially improved real-world lower extremity use for as long as 4 years afterward. Further trials are needed to determine the consistency of these findings.

Title: Electronic Screening and Decision Support for Poststroke Depression: An Exploration of Doctors’ and Patients’ Perceptions of Acceptability.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2013, vol./is. 94/4(788-790), 00039993
Author(s): White, Jennifer H., Towers, Sally E., Turner, Alyna, Hambridge, John

Abstract: Objective: To explore clinicians’ and patients’ perceptions of acceptability of an electronic screening and decision support system for poststroke depression. Design: A mixed-methods study involved participants from 2 convenience samples. Setting: Outpatient stroke and rehabilitation clinics. Participants: Stroke patients (n=62) completed surveys. Seven clinicians working at clinics targeted by the depression screening process were interviewed using semi-structured interviews. Interventions: Not
applicable. Main Outcome Measures: Patient data were analyzed from an acceptability survey. Qualitative data analysis involved an inductive thematic approach with constant comparison. Results: Most patients found screening easy to complete and understand, important, and a good way of conveying information to the clinician. Most clinicians did not systematically discuss mood disturbances, with attenuating factors and barriers to identification both influencing identification. Variations in the management of mood centered on the use of pharmacotherapy and role overlap with general practitioners. The screening process assisted with identification and saved time during diagnosis and management. Conclusions: The positive perceptions of patients and clinicians identified in this study support the concept of routine screening and feedback for poststroke depression. This process has the potential to improve poststroke depression practice to meet national guidelines; however, evaluation of impact on patient outcome is required.

Title: Prognosis in severe brain injury.

Citation: Critical Care Medicine, 01 April 2013, vol./is. 41/4(1104-1123), 00903493

Author(s): Stevens, Robert D, Sutter, Raoul

Abstract: BACKGROUND: The prediction of neurologic outcome is a fundamental concern in the resuscitation of patients with severe brain injury. OBJECTIVE: To provide an evidence-based update on neurologic prognosis following traumatic brain injury and hypoxic-ischemic encephalopathy after cardiac arrest. DATA SOURCE: Search of the PubMed database and manual review of bibliographies from selected articles to identify original data relating to prognostic methods and outcome prediction models in patients with neurologic trauma or hypoxic-ischemic encephalopathy. DATA SYNTHESIS AND CONCLUSION: Articles were scrutinized regarding study design, population evaluated, interventions, outcomes, and limitations. Outcome prediction in severe brain injury is reliant on features of the neurologic examination, anatomical and physiological changes identified with CT and MRI, abnormalities detected with electroencephalography and evoked potentials, and physiological and biochemical derangements at both the brain and systemic levels. Use of such information in univariable association studies generally lacks specificity in classifying neurologic outcome. Furthermore, the accuracy of established prognostic classifiers may be affected by the introduction of outcome-modifying interventions, such as therapeutic hypothermia following cardiac arrest. Although greater specificity may be achieved with scoring systems derived from multivariable models, they generally fail to predict outcome with sufficient accuracy to be meaningful at the single patient level. Discriminative models which integrate knowledge of genetic determinants and biologic processes governing both injury and repair and account for the effects of resuscitative and rehabilitative care are needed.

Full Text: Available from Ovid in Critical Care Medicine


Citation: British Journal of Occupational Therapy, 15 May 2013, vol./is. 76/5(251-251), 03080226

Author(s): Tempest, Stephanie, Baird, Tess

Title: Reflective action assessment with a prospective clinical problem solving tool in the context of rehabilitation medicine: an illustrative case study.

Citation: Disability & Rehabilitation, 01 August 2013, vol./is. 35/13(1048-1054), 09638288

Author(s): Kellett, David, Mpfu, Elias, Madden, Richard

Abstract: Purpose: This study describes a case formulation approach applying a prospective ICF derived clinical tool to assess rehabilitation needs for a community dwelling stroke survivor with care from an outpatient rehabilitation medicine clinic. Method: Case history data on the person were assessed for rehabilitation management planning using a prospective tool to interlink current with projected future functional status in everyday settings. Implicit assessment with reflective action informed decision points at
each stage of the rehabilitation process. Results: As a result of reflective action using the prospective tool, rehabilitation management led to significant changes in client participation after limitations to mobility and self care were mapped to the living conditions of the stroke survivor. The context sensitive rehabilitative plan resulted in higher subjective health-related quality of life in the stroke survivor and significant other and enhanced their capacity for participation. Conclusions: Reflective action informed assessment applying ICF concepts to clinical problem solving resulted in positive gains in health-related quality of life in a stroke survivor.

Title: Is Impaired Control of Reactive Stepping Related to Falls During Inpatient Stroke Rehabilitation?

Citation: Neurorehabilitation & Neural Repair, 01 July 2013, vol./is. 27/6(526-533), 15459683
Author(s): Mansfield, Avril, Inness, Elizabeth L., Wong, Jennifer S., Fraser, Julia E., McIlroy, William E.

Title: Stroke Rehabilitation: Issues for Physiotherapy and Physiotherapy Research to Improve Life after Stroke.

Citation: Physiotherapy Research International, 01 June 2013, vol./is. 18/2(65-69), 13582267
Author(s): Langhammer, Birgitta, Verheyden, Geert


Citation: Physiotherapy Research International, 01 June 2013, vol./is. 18/2(91-99), 13582267
Author(s): Jones, Fiona, Livingstone, Elizabeth, Hawkes, Louise

Abstract: Background and Purpose This paper presents findings from a study which aimed to explore contextual, personal and professional factors in applying training in the use of a new stroke self-management programme. Methods Practitioners completed in-depth case reflections as part of their two-day training in the Bridges stroke self-management programme (SSMP). The study utilized a qualitative approach to explore the understanding and meaning participants gave to their experiences of using the SSMP. Data from case reflections were analysed using a thematic content analysis. Results Data from 60 case reflections were included in the analysis. Several themes were prominent including: timing, belief in the concept of self-management, congruence with goal setting, balance of power and subtleties and sensitivities of using the SSMP. The use of in-depth case reflections enabled a personal awareness of the complexities of supporting self-management after stroke. Participants reflected on their communication styles and interactions and how they influence the development of self-management skills in individuals post-stroke. Conclusion Case reflections offered an opportunity for participants who had received training in the use of an SSMP to explore their experiences of using the programme with individuals post-stroke. This enabled personal reflection on learning and facilitated a wider discussion on the professional and organizational context concerning integration of a self-management programme into stroke rehabilitation. The paradox between professionals having a role as 'experts' and the subtle changes in practice towards a more collaborative therapeutic relationship to support self-management needs further exploration. Implication for practice Physiotherapists were required to make a change in their practice from traditional, educational, hands on approaches to one which gave more prominence to facilitating an individual's problem solving, collaborative goal setting and decision-making post-stroke. This study highlights a number of issues relevant to professional learning and education in respect of self-management. Copyright © 2012 John Wiley & Sons, Ltd.

Title: Exercise Prescription Patterns in Patients Treated with Vestibular Rehabilitation After Concussion.

Citation: Physiotherapy Research International, 01 June 2013, vol./is. 18/2(100-108), 13582267
Author(s): Alsalaheen, Bara A., Whitney, Susan L., Mucha, Anne, Morris, Laura O., Furman, Joseph M., Sparto, Patrick J.
Abstract: Background and Purpose Individuals with concussion often complain of persistent dizziness and imbalance, and these problems have been treated with vestibular rehabilitation exercises. The purpose of this study is to describe the vestibular rehabilitation exercise prescriptions provided to individuals after concussion. Methods A retrospective chart review of vestibular rehabilitation home exercise programmes prescribed by physical therapists for 104 participants who were diagnosed with concussion was conducted. Each of the exercises was classified by exercise type, duration and frequency. Frequency counts of the most common exercise types were recorded. Exercise progression patterns were examined by determining how exercise types were modified from visit to visit. Results Eye-head coordination exercises were the most commonly prescribed exercise type (in 95% of participants), followed by standing static balance exercises (in 88% of participants), and ambulation exercises (in 76% of participants). Conclusions Understanding the prescription patterns of expert clinicians may elucidate the vestibular-related impairments of individuals after concussion and may provide a resource for therapists who may be starting vestibular rehabilitation programmes for management of individuals with concussion. To improve quality of care, future research should be directed to relate outcomes to the exercise prescription patterns. Copyright © 2012 John Wiley & Sons, Ltd.

Title: Vocational rehabilitation for clients with cognitive and behavioral disorders associated with traumatic brain injury.

Citation: Work, 01 June 2013, vol./is. 45/2(273-277), 10519815
Author(s): Watanabe, Shu

Abstract: OBJECTIVE: To report on functional outcomes of clients with traumatic brain injury (TBI) admitted to a sub-acute rehabilitation hospital and rehabilitation facility in Japan. PARTICIPANTS: The subjects included 300 adults with TBI who underwent a rehabilitation in-patient program at the hospital at the Kanagawa Rehabilitation Center. METHODS: Individual and group programs were designed for TBI clients using an interdisciplinary teamwork model including supported employment. All clients were evaluated by the Barthel Index, WAIS-R, and social outcome. RESULTS: Overall, at discharge from the hospital, 46.4% of 300 clients were placed in gainful employment or returned to the school they had attended previously. CONCLUSIONS: Despite a high prevalence of cognitive and behavioral disorders after moderate-to-severe TBI, long-term functional improvement is likely to occur in clients with TBI. Greater gains in both physical and cognitive functions are made through a multidisciplinary, wide-ranging, comprehensive approach to rehabilitation.

Title: In-patient falls: what can we learn from incident reports?

Citation: Age & Ageing, 01 July 2013, vol./is. 42/4(527-531), 00020729
Author(s): Hignett, Sue, Sands, Gina, Griffiths, Paula

Title: Hospitals reduce serious falls 64% by sharing data, strategies.

Citation: Healthcare Risk Management, 01 July 2013, vol./is. 35/7(79-80), 10816534
Language: English

Title: Evidence-Based Toolkit Helps Organizations Reduce Patient Falls.

Citation: Journal of Nursing Care Quality, 01 July 2013, vol./is. 28/3(195-197), 10573631
Author(s): Clancy, Carolyn M.

Title: Partnering to Prevent Falls: Using a Multimodal Multidisciplinary Team.

Citation: Journal of Nursing Administration, 01 June 2013, vol./is. 43/6(336-341), 00020443
Author(s): Volz, Tina M., Swaim, T. Jan
Abstract: An organizational goal to decrease fall rates was initiated using a multidisciplinary, multimodal approach. One innovative strategy was the Friday fall review, where nurse managers present each fall that occurred to determine causes and potential preventive measures. Results of the project include a fall rate below the benchmark for 9 of 10 recent consecutive quarters. Because of the success of this initiative, the quality department has adopted the format to review all core measure indicators where there is noncompliance or less than optimal performance.

Title: Variations in acute stroke care and the impact of organised care on survival from a European perspective: The European Registers of Stroke (EROS) investigators.

Citation: Journal of Neurology, Neurosurgery & Psychiatry, June 2013, vol./is. 84/6(604-612), 0022-3050 (Jun 2013)
Author(s): Ayis, Salma Ahmed, Coker, Bolaji, Bhalla, Ajay, Wellwood, Ian, Rudd, Anthony G, Di Carlo, Antonio, Bejot, Yannick, Ryglewicz, Danuta, Rastenye, Daiva, Langhorne, Peter, Dennis, Martin S, McKevitt, Christopher, Wolfe, Charles D. A

Abstract: Background: The need for stroke care is escalating with an ageing population, yet methods to estimate the delivery of effective care across countries are not standardised or robust. Associations between quality and intensity of care and stroke outcomes are often assumed but have not been clearly demonstrated. Objective: To examine variations in acute care processes across six European populations and investigate associations between the delivery of care and survival. Methods: Data were obtained from population-based stroke registers of six centres in France, Lithuania, UK, Spain, Poland and Italy between 2004 and 2006 with follow-up for 1 year. Variations in the delivery of care (stroke unit, multidisciplinary team and acute drug treatments) were analysed adjusting for case mix and sociodemographic factors using logistic regression methods. Unadjusted and adjusted survival probabilities were estimated and stratified by levels of Organised Care Index. Results: Of 1918 patients with a first-ever stroke registered, 30.7% spent more than 50% of their hospital stay in a stroke unit (13.9-65.4%) among centres with a stroke unit available. The percentage of patients assessed by a stroke physician varied between 7.1% and 96.6%. There were significant variations after adjustment for confounders, in the organisation of care across populations. Significantly higher probabilities of survival (p < 0.01) were associated with increased organisational care. Conclusions: This European study demonstrated associations between delivery of care and stroke outcomes. The implementation of evidence-based interventions is suboptimal and understanding better ways to implement these interventions in different healthcare settings should be a priority for health systems. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract)

Full Text: Available from Highwire Press in Journal of neurology, neurosurgery, and psychiatry

Title: Functional limitations in TBI and their relationship to job maintenance following work re-entry.

Citation: Journal of Vocational Rehabilitation, 01 August 2013, vol./is. 39/1(13-21), 10522263
Author(s): Artman, Laura K., McMahon, Brian T.

Abstract: Using data from the Job Accommodation Network Information System (JANIS), the utility of self-reported functional limitations was examined in relationship to job maintenance for individuals with traumatic brain injury (TBI) who had returned to work. It was found that memory loss and attention/concentration concerns were the most common functional limitations reported. To further establish which limitations were associated with job maintenance, a binary logistic regression was applied. Results suggested that the presence of medical symptoms and emotional dysregulation were reliably and inversely associated with job maintenance. Implications are provided for further research as well as the practice of rehabilitation counseling.

Title: Cognitive and adaptive functioning after severe TBI in school-aged children.
Abstract: Objective: Persistent cognitive and behavioural deficits have been documented in children suffering severe TBI. The aim of the present study was to examine the cognitive and adaptive profile of children of school age with severe TBI. Methods: This study selected 118 patients and divided them into three groups according to the severity of their clinical-functional picture. All the patients received a functional assessment using the Wee-FIM. Subjects with reduced responsiveness were evaluated by LOCFAS. Last, the cognitive profile children with a better recovery were described with WISC-III and Leiter-R and their adaptive behaviour with VABS. Results: Group 1 (n = 77) showed a borderline cognitive level with a disharmonious profile between VIQ and PIQ, significant deficits in the Processing Speed and Perceptual Organization Indices, lastly specific adaptive behavioural deficits. Length of coma correlated with their cognitive and adaptive profile. Group 2 (n = 14) included subjects with severe language and/or motor disabilities presenting with a partial cognitive functioning level moderately impaired. Group 3 (n = 27) included patients with reduced responsiveness (LOCFAS ≤ 3). Conclusions: In the first 12 months following severe TBI, 22.9% children stayed in minimal responsiveness, 11.9% showed debilitating language and motor deficits and 65.2% showed a more favourable cognitive recovery and could be assessed by WISC-III.

Title: Training conversation partners of persons with communication disorders related to Parkinson's disease—a protocol and a pilot study.

Abstract: This paper reports on the adaptation of a training programme for conversation partners of persons with Parkinson's disease, and a protocol for assessment of possible changes in conversational interaction as a result of intervention. We present data from an explorative multiple case study with three individuals with Parkinson's disease and their spouses. Repeated analysis of natural conversational interaction and measures of the participants' perception of communication as well as measures of different cognitive abilities were obtained. The results show that the communication in all three dyads was affected by both speech and language problems and that the conversation training model and the assessment protocol may work well after minor adjustments. Influence of different aspects of cognition on communication is discussed.

Title: Occupational therapists' experiences of rehabilitation of patients with limited awareness after stroke.

Abstract: Aim: The aim of this study was to describe occupational therapists’ experiences of rehabilitation of patients with limited awareness after stroke. Methods: To capture occupational therapists’ experiences, a qualitative approach was chosen using five focus groups consisting of 22 participants engaged in group discussions with open-ended questions based on the aim. Discussions were taped, transcribed verbatim, and analysed according to Kreuger's method. The analysis revealed one general description, constant adjustment, with three themes emerging during the analysis: adjustments in choice of activity, adjustments in choice of environment, and therapeutic adjustments. These themes interacted and were dependent on the desired effect of the interventions. Adjustments were made continuously depending on their effect. The occupational therapists strove for patients to avoid unnecessary risks, make realistic decisions, and live as independently as possible.

Title: The Natural History of Depression up to 15 Years After Stroke: The South London Stroke Register.
Abstract: BACKGROUND AND PURPOSE: Evidence on the natural history of depression after stroke is still insufficient to inform prognosis and treatment strategies. This study estimates the incidence, cumulative incidence, prevalence, time of onset, duration, and recurrence rate of depression up to 15 years after stroke. METHODS: Data from patients registered in the South London Stroke Register between 1995 and 2009 were used (N=4022 at registration. Maximum number of participants for these analyses n=1233). Depression was assessed in all patients with the Hospital Anxiety and Depression Scale (scores >7=depression) 3 months after stroke, 1 year after stroke, and annually thereafter up to 15 years after stroke. Inverse probability weighting was used to calculate the estimates accounting for missing data. RESULTS: The poststroke incidence of depression ranged from 7% to 21% in the 15 years after a stroke, with cumulative incidence of 55% and prevalence ranging from 29% to 39%. Most episodes of depression started within a year of stroke, with 33% of the cases starting in the 3 months after a stroke, and none from year 10 onward. Fifty percent of the patients with depression at 3 months had recovered 1 year after stroke. The proportion of recurrent episodes of depression after stroke increased gradually from 38% in year 2 to 100% in years 14 and 15. CONCLUSIONS: The natural history of depression after stroke is dynamic. Depression affects most of the stroke patients with episodes that have a short duration but a high risk of recurrence in the long term.

Full Text: Available from Ovid in Stroke

Title: Poststroke dementia is associated with recurrent ischaemic stroke.

Citation: Journal of Neurology, Neurosurgery & Psychiatry, July 2013, vol./is. 84/7(722-726), 0022-3050 (Jul 2013)
Author(s): Sibolt, Gerli, Curtze, Sami, Melkas, Susanna, Pataala, Jukka, Pohjasvaara, Tarja, Kaste, Markku, Karhunen, Pekka J, Oksala, Niku K. J, Erkinjuntti, Timo

Abstract: Objective: To investigate whether poststroke dementia (PSD) diagnosed after ischaemic stroke predicts recurrent ischaemic stroke in long-term follow-up. Methods: We included 486 consecutive patients with ischaemic stroke (388 with first-ever stroke) admitted to Helsinki University Central Hospital who were followed-up for 12 years. Dementia was diagnosed in 115 patients using the Diagnostic and Statistical Manual of Mental Disorders, 3rd edition (DSM-III) criteria. The effects of risk factors and PSD on survival free of recurrent stroke were estimated using Kaplan-Meier log-rank analyses, and the HRs for stroke recurrence were calculated using Cox proportional hazards models. Results: In the entire cohort, patients with PSD had a shorter mean time to recurrent stroke (7.13 years, 95% CI 6.20 to 8.06) than patients without dementia (9.41 years, 8.89 to 9.92; log rank p < 0.001). This finding was replicated in patients with first-ever stroke (6.89 years, 5.85 to 7.93 vs 9.68 years, 9.12 to 10.24; p < 0.001). In Cox univariate analysis, PSD was associated with increased risk for recurrent stroke both in the entire cohort (HR 2.02; 95% CI 1.47 to 2.77) and in those with first-ever stroke (2.40; 1.68 to 3.42). After adjustment for the significant covariates of age, atrial fibrillation, peripheral arterial disease and hypertension, PSD was associated with increased risk for recurrent stroke both in the entire cohort (1.84; 1.34 to 2.54) and in those with first-ever stroke (2.16; 1.51 to 3.10). Conclusions: Poststroke dementia predicts recurrence of ischaemic stroke in long-term follow-up and should be considered when estimating prognosis. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract)

Full Text: Available from Highwire Press in Journal of neurology, neurosurgery, and psychiatry

Title: Functional limitations in TBI and their relationship to job maintenance following work re-entry.

Citation: Journal of Vocational Rehabilitation, 01 August 2013, vol./is. 39/1(13-21), 10522263
Author(s): Artman, Laura K., McMahon, Brian T.
Abstract: Using data from the Job Accommodation Network Information System (JANIS), the utility of self-reported functional limitations was examined in relationship to job maintenance for individuals with traumatic brain injury (TBI) who had returned to work. It was found that memory loss and attention/concentration concerns were the most common functional limitations reported. To further establish which limitations were associated with job maintenance, a binary logistic regression was applied. Results suggested that the presence of medical symptoms and emotional dysregulation were reliably and inversely associated with job maintenance. Implications are provided for further research as well as the practice of rehabilitation counseling.

Title: Psychotherapeutic treatment of survivors of traumatic brain injury: Review of the literature and special considerations.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(775-788), 02699052
Author(s): Block, Cady K., West, Sarah E.

Abstract: Primary objective: To provide an overview of useful clinical information for healthcare providers involved in traumatic brain injury (TBI) rehabilitation, including current methods used with survivors of TBI, therapeutic considerations in light of this population's cognitive, emotional and social difficulties and issues regarding the therapeutic working alliance from both survivor and provider perspectives. Research design: Non-systematic clinical review. Method: The literature was intended to be comprehensive to reflect both past and present contributions to the field. To that end, citations were included from seminal and current texts as well as relevant original and review articles from 1985-2012 in PubMed and PubMedCentral online research databases. Main outcomes and results: This article highlights the usefulness of psychotherapy for treatment of psychiatric symptoms in the TBI population, reviews available modalities and offers considerations and suggestions to facilitate and improve treatment. Conclusions: Although challenging and perhaps frustrating at times, psychotherapy with this population can be validly attempted and ultimately very rewarding for both the survivor and therapist. Future research should seek to perform controlled studies to examine therapeutic efficacy and compare gains by injury severity in the hopes of creating best practice guidelines for practitioners.

Title: Post-acute assessment programme for patients with traumatic brain injury: Measuring the gap between patients' expectations on entering and end of programme recommendations.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(789-792), 02699052

Abstract: Objective: To compare the expectations of patients with brain injury (TBI) entering a post-acute programme to the recommendations made at the end. Design: Retrospective study (1997 and 2009). Intervention: This 12-week post-acute programme included ecological multidisciplinary assessment of physical and cognitive disabilities, independence in activities of daily living and work abilities. Recommendations made at the conclusion of the programme included advice regarding the ability to work in an unsheltered or a sheltered environment and possible social activities. Results: Two hundred and forty patients participated. The main objective of 95.8% was return-to-work: 93.7% expected a normal work environment, 2.1% considered a sheltered environment and 4% entered the programme with the aim of improving social abilities and integration in the community. The recommendations included return-to-work in 68.3% of cases, in an unsheltered environment in 44.2% and in a sheltered environment in 24.1% and advice for contact with social services in order to achieve better social integration in 31.7%. There was a discrepancy between expectations and recommendations in half of the cases. Conclusion: The discrepancy between patients' expectations and recommendations is in part due to the cognitive disorders; long-term rehabilitation programmes should focus on this issue.

Title: Efficacy of a functionally-based neurorehabilitation programme: A retrospective case-matched study of rehabilitation outcomes following traumatic brain injury.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(799-806), 02699052
Author(s): Cullen, Nora, Vimalesan, Kalyani, Taggart, Christina
Abstract: Objective: To investigate the efficacy of a functionally-based neurorehabilitation programme. Design: Retrospective, case-matched cohort design. Setting: An inpatient acquired brain injury (ABI) service at a post-acute rehabilitation facility. In 2001, a functionally-based rehabilitation model was introduced that streams patients into neurocognitive (NC) and neurophysical (NP) treatment groups based on predominant functional deficits. Methods: Sixty-nine patients with TBI admitted to the ABI service before implementation of the functionally-based programme comprised a historical control group. These patients were individually case-matched to 69 participants admitted after the functionally-based programme began. Rehabilitation outcomes were compared between matched patients treated before and after implementation of the programme. Outcome measures: Rehabilitation length of stay (RLOS), Functional Independence Measure (FIM) and Disability Rating Scale (DRS) at rehabilitation discharge and FIM efficiency. Results: At discharge, the NP-stream had a significantly higher FIM motor efficiency compared to the historical control (0.41 vs. 0.29; p = 0.01). The NC-stream had significantly less disability, as measured by the DRS, compared to its control (3.63 vs. 5.05; p = 0.01). Conclusions: This study presents preliminary evidence that a rehabilitation programme that targets functional needs rather than diagnosis may be useful in improving function after traumatic brain injury.

Title: The effect of recommending cognitive rest on recovery from sport-related concussion.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(839-842), 02699052
Author(s): Gibson, Sarah, Nigrovic, Lise E., O'Brien, Michael, Meehan, William P.

Abstract: Objective: To determine whether recommending cognitive rest to athletes after a sport-related concussion affects time to symptom resolution. Methods: A retrospective cohort study was conducted of 184 patients who presented to a sports concussion clinic in an academic medical centre between 1 November 2007 and 31 July 2009. The effect of recommending cognitive rest on symptom duration (days) was measured after adjusting for age, gender, initial PCSS score, history of amnesia, history of loss of consciousness and number of previous concussions. Using multivariate logistic regression, independent predictors of prolonged symptoms were identified, defined as >30 days. Results: Of the 135 study patients with complete medical records, 85 (63%) had cognitive rest recommended. Of those, 79 (59%) had prolonged symptoms. In the multivariate analysis, only initial PCSS score was associated with the duration of concussion symptoms (adjusted odds ratio (AOR) = 1.03; 95% CI = 1.01-1.05). The recommendation for cognitive rest was not significantly associated with time to concussion symptom resolution (AOR = 0.5; 95% CI = 0.18-1.37). Conclusions: Given the limited evidence regarding the effects of cognitive rest on recovery from concussion, recommendations of prolonged periods of cognitive rest, particularly absences from school, should be approached cautiously.

Title: Component analysis of verbal fluency scores in severe traumatic brain injury.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(903-908), 02699052
Author(s): Zakzanis, Konstantine K., McDonald, Krysta, Troyer, Angela K.

Abstract: Primary objective: This study set out to examine the sensitivity of verbal fluency component scores in severe traumatic brain injury (TBI). Research design: A retrospective cross-sectional design was used, with control participants chosen at random from the community and TBI patients from litigation cases. Methods and procedures: Fifty-four healthy controls and 28 patients who had incurred a severe TBI were included in the study. The Controlled Oral Word Association test was rescored to include clustering and switching scores for phonemic and semantic fluency separately. The scores were compared between controls and TBI patients using independent samples t-tests. Main outcomes and results: The findings demonstrate that component scores for semantic fluency yielded the largest effect sizes overall (d = 1.32 and d = 1.53), but not phonemic fluency. Total words generated in phonemic fluency yielded the largest effect size, although still modest (d = 0.62). Conclusions: While verbal fluency may be a useful test tool to elicit evidence of neuropsychological impairment after TBI, these findings are consistent with previous research demonstrating that component scores are more sensitive indices. There is potential clinical utility in using component scores for examining the specific severity of verbal fluency impairment in TBI and guiding rehabilitation efforts.
Title: Treatment challenges with profound behaviour disturbance after traumatic brain injury: A case report.

Citation: Brain Injury, 01 July 2013, vol./is. 27/7/8(957-961), 02699052
Author(s): Dvorkin, Assaf Y., Pacini, Sonia, Hsu, Nancy, Larson, Eric B.

Abstract: Background: Severe behavioural disturbances exhibited during the earliest stages of recovery from severe traumatic brain injury often limit the ability to provide standard care. Studies that focus on treatment options for inpatients with such behaviours are scarce. There is limited guidance on how to approach therapy that will maximize the patient's tolerance and participation and how to measure meaningful progress. Case report: This case study describes how the use of an innovative treatment approach to improve attention was beneficial in rehabilitation of a patient with severe traumatic brain injury whose profound behaviour disturbances substantially precluded participation in traditional therapies. The study shows how rehabilitation utilizing an interactive virtual reality-robotics environment that minimized distractions was associated with improved engagement in therapy, decreased disruptive behaviour during treatment and more sensitive measurement of progress. Conclusion: These results may be instructive in how technology can be used to modify therapy sessions to make them accessible to patients with profound behaviour disturbance and how meaningful progress can be measured even in the absence of gains in traditional metrics.

Title: Combined effects of sensory cueing and limb activation on unilateral neglect in subacute left hemiplegic stroke patients: a randomized controlled pilot study.

Citation: Clinical Rehabilitation, 01 July 2013, vol./is. 27/7(628-637), 02692155
Author(s): Fong, Kenneth NK, Yang, Nicole YH, Chan, Marko KL, Chan, Dora YL, Lau, Andy FC, Chan, Dick YW, Cheung, Joyce TY, Cheung, Hobby KY, Chung, Raymond CK, Chan, Chetwyn CH

Title: Occupational therapists' experiences of rehabilitation of patients with limited awareness after stroke.

Citation: Scandinavian Journal of Occupational Therapy, 01 July 2013, vol./is. 20/4(264-271), 11038128
Author(s): Lindström, Ann-Charlotte, Eklund, Kajsa, Billhult, Annika, Carlsson, Gunnel

Abstract: Aim: The aim of this study was to describe occupational therapists' experiences of rehabilitation of patients with limited awareness after stroke. Methods: To capture occupational therapists' experiences, a qualitative approach was chosen using five focus groups consisting of 22 participants engaged in group discussions with open-ended questions based on the aim. Discussions were taped, transcribed verbatim, and analysed according to Kreuger's method. The analysis revealed one general description, constant adjustment, with three themes emerging during the analysis: adjustments in choice of activity, adjustments in choice of environment, and therapeutic adjustments. These themes interacted and were dependent on the desired effect of the interventions. Adjustments were made continuously depending on their effect. The occupational therapists strove for patients to avoid unnecessary risks, make realistic decisions, and live as independently as possible.

Title: Stroke rehabilitation guidance published.

Citation: Nursing Times, 19 June 2013, vol./is. 109/24(4-4), 09547762

Full Text: Available from Nursing Times in Bath Academy Library

Title: Selective treatment of regular versus irregular verbs in agrammatic aphasia: Efficacy data.

Citation: Aphasiology, 01 June 2013, vol./is. 27/6(678-705), 02687038
Author(s): Faroqi-Shah, Yasmeen
Abstract: Background: Production of verb morphology, especially tense marking, is frequently impaired in persons with agrammatic aphasia. Very little research has examined theoretically driven treatments for verb morphology deficits in aphasia. Aims: This study examined the relative efficacy of using regular (washed, robbed) versus irregular (drink, drunk) verbs as stimuli to treat morphological impairments in individuals with aphasia. This comparison was motivated by differences in the lexical organisation of regular and irregular verbs proposed in psycholinguistic theory. Methods & Procedures: A single-participant multiple-baseline design was used to examine treatment outcomes in six individuals with agrammatic aphasia. Participants received training to produce tense morphology using only either regular or irregular verbs, and the crucial outcome measure was generalisation to untrained past tense forms (regular to irregular and vice versa). Outcomes & Results: All participants improved in the trained tenses and generalised to the production of regular tense morphology on untrained verbs. Generalisation to untrained irregular past tense was relatively modest, irrespective of whether regular or irregular verbs were trained. Conclusions: The results replicate previous findings that verb morphology deficits respond to intervention, and extend the findings by suggesting that choice of stimuli may have consequences for generalisation effects. The implication for aphasia rehabilitation is that tense training using irregularly inflected verbs generalises to a greater variety of untrained verb inflections (including regular past) than does the use of regular verbs.

Full Text: Available from Taylor & Francis in Aphasiology

Title: Inpatient rehabilitation volume and functional outcomes in stroke, lower extremity fracture, and lower extremity joint replacement.

Citation: Medical Care, 01 May 2013, vol./is. 51/5(404-412), 00257079
Author(s): Graham, James E, Deutsch, Anne, O’Connell, Ann A, Karmarkar, Amol M, Granger, Carl V, Ottenbacher, Kenneth J

Abstract: BACKGROUND: It is unclear if volume-outcome relationships exist in inpatient rehabilitation. OBJECTIVES: Assess associations between facility volumes and 2 patient-centered outcomes in the 3 most common diagnostic groups in inpatient rehabilitation. RESEARCH DESIGN: We used hierarchical linear and generalized linear models to analyze administrative assessment data from patients receiving inpatient rehabilitation services for stroke (n=202,423), lower extremity fracture (n=132,194), or lower extremity joint replacement (n=148,068) between 2006 and 2008 in 717 rehabilitation facilities across the United States. Facilities were assigned to quintiles based on average annual diagnosis-specific patient volumes. MEASURES: Discharge functional status (FIM instrument) and probability of home discharge. RESULTS: Facility-level factors accounted for 6%-15% of the variance in discharge FIM total scores and 3%-5% of the variance in home discharge probability across the 3 diagnostic groups. We used the middle volume quintile (Q3) as the reference group for all analyses and detected small, but statistically significant (P<0.01) associations with discharge functional status in all 3 diagnosis groups. Only the highest volume quintile (Q5) reached statistical significance, displaying higher functional status ratings than Q3 each time. The largest effect was observed in FIM total scores among fracture patients, with only a 3.6-point difference in Q5 and Q3 group means. Volume was not independently related to home discharge. CONCLUSIONS: Outcome-specific volume effects ranged from small (functional status) to none (home discharge) in all 3 diagnostic groups. Patients with these conditions can be treated locally rather than at higher volume regional centers. Further regionalization of inpatient rehabilitation services is not needed for these conditions.

Title: A pilot randomized controlled trial of an early multidisciplinary model to prevent disability following traumatic injury.

Citation: Disability & Rehabilitation, 15 August 2013, vol./is. 35/14(1149-1163), 09638288
Author(s): Browne, Allyson L., Appleton, Sally, Fong, Kim, Wood, Fiona, Coll, Fiona, de Munck, Sonja, Newnham, Elizabeth, Schug, Stephan A.
Abstract: Purpose: Chronic pain, posttraumatic stress disorder (PTSD), and depression are common outcomes following traumatic injury. Yet, screening and early intervention to prevent the onset of these disorders do not occur routinely in acute trauma settings. This pilot study examined the clinical utility of screening and early multidisciplinary intervention for reducing disability following traumatic injury. Method: 142 non-severe head injured trauma inpatients (26% female, Injury Severity Score M = 9.65, M age = 36 years) were assessed for injury-related factors, pain, and psychological function within 4 weeks post injury. Patients were randomly allocated to a Multidisciplinary Intervention (MI) or Usual Care (UC) group. MI patients received assessment and treatment at one and 3 months post injury from pain and rehabilitation medicine doctors, physiotherapists, occupational therapists, and clinical psychologists. Outcomes at 6 months were then compared. Results: Acute pain intensity, posttraumatic adjustment, depression and acute trauma symptoms, and alcohol use predicted a significant 26%, 49%, 56%, and 30% of the variance in pain, depressive, and PTSD severity, and physical mobility respectively at 6 months. Despite MI group patients reporting no improvement in the severity of pain and psychological symptoms, these patients reported significantly improved relief from pain symptoms as a result of treatment at 6 months. Twenty four per cent of the UC group initially below the cut-off for being at risk of developing PTSD/Depression received new clinical diagnoses at 6 months compared with none of the 'not at risk' MI group attendees who remained asymptomatic. Conclusions: Early findings point to the value of early screening to identify patients at risk of treatable pain, physical, and psychological impairments. Moreover, early multidisciplinary intervention models following traumatic injury show promise for protecting against the onset of posttraumatic psychological disorders.

Title: Participant perceptions of a novel physiotherapy approach ('Blue Prescription') for increasing levels of physical activity in people with multiple sclerosis: a qualitative study following intervention.

Citation: Disability & Rehabilitation, 15 August 2013, vol./is. 35/14(1174-1181), 09638288
Author(s): Smith, Catherine M, Hale, Leigh A, Mulligan, Hilda F, Treharne, Gareth J

Abstract: Purpose: The aim of this study was to investigate experiences of participating in a feasibility trial of a novel physiotherapy intervention (Blue Prescription). The trial was designed to increase participation in physical activity for people with multiple sclerosis living in the community. Methods: We individually interviewed 27 volunteers from two New Zealand metropolitan areas at the conclusion of their participation in Blue Prescription. We asked volunteers about what participation in Blue Prescription had meant to them; how participants intended to continue with their physical activity; how the approach differed from previous experiences of physiotherapy encounters; and how Blue Prescription could be improved. Interviews were semi-structured, audio-recorded, transcribed verbatim, and analysed using a General Inductive Approach. Results: 'Support' was identified as a key theme with three sub-themes: 'The therapeutic relationship'; 'The Blue Prescription approach'; and 'Supporting themselves'. We identified two additional themes 'Motivation to participate' and 'Improving the Blue Prescription approach'. Conclusion: A novel approach (Blue Prescription) which facilitates engagement in higher levels of desirable physical activity was perceived by participants to be supportive, motivating and enabling. This approach might be particularly useful for people with multiple sclerosis ready to adopt new health-related behaviours. For future studies, this approach requires further refinement, particularly with regards to methods of communication and evaluation.

Title: The feasibility and short-term benefits of Blue Prescription: a novel intervention to enable physical activity for people with multiple sclerosis.

Citation: Disability & Rehabilitation, 15 August 2013, vol./is. 35/14(1213-1220), 09638288
Author(s): Hale, L. A., Mulligan, H. F., Treharne, G. J., Smith, C. M.

Abstract: Purpose: Participation in physical activity for people with Multiple sclerosis (MS) is important but can be difficult to sustain long-term. Facilitators for long-term adherence include choice over activity and control over level of engagement, coupled with support, advice and encouragement from a physiotherapist. This is the basis of Blue Prescription, a novel physiotherapy approach aimed at optimising long-term adherence with physical activity. We evaluated the feasibility and short-term benefits of Blue Prescription in people with MS. Methods: Twenty-seven people with MS (mean age: 51 ± 11 years, with a range of MS type and disability) were assessed at baseline and immediately post-intervention with the MS Impact Scale,
Title: Mid- to long-term factors influencing functional status of people affected by lower-limb amputation associated with hemiparesis due to stroke.

Citation: Disability & Rehabilitation, 15 July 2013, vol./is. 35/12(982-989), 09638288
Author(s): Brunelli, Stefano, Fusco, Augusto, Iosa, Marco, Delussu, Anna Sofia, Paolucci, Stefano, Traballesi, Marco

Abstract: Purpose: In people with lower-limb amputation and hemiparesis, prognostic factors of rehabilitation outcomes were investigated at hospital discharge. This study aims to identify which factors influence functional outcomes at mid- to long-term follow-up. Methods: Follow-up observational study on forty-four people (68± 9 years old) with unilateral amputation for vascular disease, temporally preceding or following hemiparesis due to stroke (26 patients prior amputation; 18 patients prior stroke), was performed. Barthel Index (BI) and Locomotor Capabilities Index (LCI) scores were recorded at discharge from the rehabilitation hospital and 3.4 years later. Use of the prosthesis was also recorded. Results: At the follow-up, BI and LCI scores had significantly decreased (10 and 13%, respectively). Contralaterality of the impairment was the main prognostic factor for reduced functional status (p = 0.025) and prosthesis abandonment (p = 0.028, OR = 4.4), especially for women (OR = 8). Severity of hemiparesis affected the BI score (p < 0.01) and level of amputation the LCI score (p < 0.01). Conclusions: At the light of the observed decrement of functional status after discharge, particular attention should be paid to the patients more exposed to the risk of worsening and/or prosthesis abandon, such as women with contralateral impairment. The results of this study may assist rehabilitation teams in performing a more specific and effective long-term rehabilitative interventions.

Title: Intensive physiotherapy for vegetative and minimally conscious state patients: a retrospective audit and analysis of therapy intervention.

Citation: Disability & Rehabilitation, 15 July 2013, vol./is. 35/12(1006-1014), 09638288
Author(s): Wheatley-Smith, Laura, McGuinness, Siobhan, Wilson, F. Colin, Scott, Gareth, McCann, John, Caldwell, Sheena

Abstract: Purpose: To analyse physiotherapy interventions and evaluate their effectiveness in the prevention and management of contracture with patients admitted in either vegetative or minimally conscious state in a UK Inpatient Regional Acquired Brain Injury Rehabilitation Service. Method: Retrospective audit of dependency levels and physiotherapy interventions in ten vegetative or minimally conscious state patients admitted over a 3-year period (2006-2009). Admission and discharge patient dependency status, Wessex Head Injury Matrix data and passive range of movement measurements on admission and discharge from physiotherapy were recorded. Results: All patients presented with hypertonicity including contractures and all initially received a manual stretching/passive movement programme. Casting/ splinting was employed in 8 cases and 7 received botulinum toxin injections. Standing regimes were initiated for 8 patients. No patient emerged out of either vegetative or minimally conscious state. Although they remained fully dependent for care needs, carer burden was reduced and all patients were able sustain a seating regimen. No minimal clinically important difference was observed in 85 out of 120 joint ranges measured (70.8%). Positive outcomes were observed in only 14 joints (11.7%) and negative outcomes in 21 joints (17.5%). Conclusion: At present, there is a paucity of evidence regarding physiotherapy efficacy to inform the management of patients in vegetative or minimally conscious state. Clearer agreed definitions of clinically important difference in passive range of movement are required to allow better interpretation of outcomes. Interventions should be aimed at minimising carer burden and developing individualised disability management programmes. Further research documenting the long-term outcomes in such patients is warranted.
Title: Interdisciplinary communication in inpatient rehabilitation facility: evidence of under-documentation of spatial neglect after stroke.

Citation: Disability & Rehabilitation, 15 July 2013, vol./is. 35/12(1033-1038), 09638288
Author(s): Peii Chen, McKenna, Cristin, Kutlik, Ann M., Frisina, Pasquale G.

Abstract: Purpose: Spatial neglect commonly occurs after stroke and predicts poor rehabilitation outcomes. However, this disorder is under-recognized in clinical practices, which may result from the failure to document its presence. This study aimed to identify the predictors for documentation of spatial neglect in inpatient rehabilitation facilities. Method: We performed a comprehensive chart review to investigate whether the presence of spatial neglect was documented in 74 neglect patients' clinical notes recorded by physicians, nurses, or occupational therapists (OTs), or in team conference notes. Independent variables included neglect severity, length of stay, Functional Independence Measure at admission and discharge. Results: Of the 74 neglect patients, 75.7% were documented by OTs, 63.5% by physicians, and 17.6% by nurses. Although 93.2% of neglect patients were recognized by at least one clinician group, only 31.1% were discussed in multidisciplinary team conferences. Neglect patients who were documented by physicians were more likely to be documented in team conferences. While no factors predicted whether a neglect patient would be documented by nurses or OTs, we found significant predictors for neglect documentation in physician and team conference notes. The odds of being documented by physicians were increasingly greater with poorer efficiency of cognitive rehabilitation (odds ratio = 0.70). The odds of being discussed in team conferences were increasingly greater with more severe neglect (odds ratio = 0.98), and with longer stay in hospitalization (odds ratio = 1.06). Conclusions: Multidisciplinary care may not involve as much interdisciplinary communication as needed to document important disease states. Stroke rehabilitation professionals should be able to recognize spatial neglect independently and document it consistently.

Title: Stroke-Associated Differences in Rates of Activity of Daily Living Loss Emerge Years Before Stroke Onset.

Citation: Journal of the American Geriatrics Society, 01 June 2013, vol./is. 61/6(931-938), 00028614
Author(s): Capistrant, Benjamin D., Wang, Qianyi, Liu, Sze Y., Glymour, M. Maria

Abstract: Objectives To compare typical age-related changes in activities of daily living (ADLs) independence in stroke-free adults with long-term ADL trajectories before and after stroke. Design Prospective, observational study. Setting Community-dwelling Health and Retirement Study (HRS) cohort. Participants HRS participants who were stroke free in 1998 and were followed through 2008 (average follow-up 7.9 years) (N = 18,441). Measurements Strokes were assessed using self- or proxy-report of a doctor's diagnosis and month and year of event. Logistic regression was used to compare within-person changes in odds of self-reported independence in five ADLs in those who remained stroke free throughout follow-up (n = 16,816), those who survived a stroke (n = 1,208), and those who had a stroke and did not survive to participate in another interview (n = 417). Models were adjusted for demographic and socioeconomic covariates. Results Even before stroke, those who later developed stroke had significantly lower ADL independence and were experiencing faster independence losses than similar-aged individuals who remained stroke free. Of those who developed a stroke, survivors experienced slower pre-stroke loss of ADL independence than those who died. ADL independence declined at the time of stroke and decline continued afterwards. Conclusion In adults at risk of stroke, disproportionate ADL limitations emerge well before stroke onset. Excess disability in stroke survivors should not be entirely attributed to effects of acute stroke or quality of acute stroke care. Although there are many possible causal pathways between ADL and stroke, the association may be noncausal. For example, ADL limitations may be a consequence of stroke risk factors (e.g., diabetes mellitus) or early cerebrovascular ischemia.

Title: Exercise for Managing the Symptoms of Multiple Sclerosis.

Citation: Physical Therapy, 01 June 2013, vol./is. 93/6(723-728), 00319023
Author(s): Padgett, Parminder K., Kasser, Susan L.
Title: Vascular Elasticity and Grip Strength Are Associated With Bone Health of the Hemiparetic Radius in People With Chronic Stroke: Implications for Rehabilitation.

Citation: Physical Therapy, 01 June 2013, vol./is. 93/6(774-785), 00319023
Author(s): Pang, Marco Y. C., Yang, Feigo Z. H., Jones, Alice Y. M.

Abstract: Background. People with stroke often have increased bone loss and fracture rate. Increasing evidence has demonstrated a link between cardiovascular health and bone loss in other patient populations. Objective. The study objectives were: (1) to compare the bone density and geometry of the radius diaphysis on the left and right sides in people with chronic stroke and people who were matched for age (control participants) and (2) to examine the relationship between the bone strength index at the hemiparetic radius diaphysis and vascular health in people with chronic stroke. Design. This was a case-control study. Methods. The radius diaphysis on both sides was scanned with peripheral quantitative computed tomography in 65 participants with chronic stroke and 34 control participants. Large-artery and small-artery elasticity indexes were evaluated with a cardiovascular profiling system. Results. The paretic radius diaphysis had significantly lower values for cortical bone mineral density, cortical thickness, cortical area, and the bone strength index but a larger marrow cavity area than the nonparetic radius diaphysis in participants with chronic stroke, whereas no bone measurement showed a significant side-to-side difference in control participants. Multiple regression analyses showed that the large-artery elasticity index and grip strength remained significantly associated with the bone strength index at the hemiparetic radius diaphysis after controlling for age, sex, time since stroke diagnosis, body mass index, and physical activity (R²=.790). Limitations. This study was cross-sectional and could not establish causality. The radius diaphysis is not the most common site of fracture after stroke. Conclusions. Both the integrity of the vasculature and muscle strength were significantly associated with the bone strength index at the hemiparetic radius diaphysis in participants with chronic stroke. The results may be useful in guiding rehabilitative programs for enhancing bone health in the paretic arm after stroke.

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Title: Responsiveness and Predictive Validity of the Hierarchical Balance Short Forms in People With Stroke.

Citation: Physical Therapy, 01 June 2013, vol./is. 93/6(798-808), 00319023
Author(s): Wan-Hui Yu, Kuan-Lin Chen, Yeh-Tai Chou, I-Ping Hsieh, Ching-Lin Hsieh

Abstract: Background. Shoulder pain and dysfunction can occur following neck dissection surgery for cancer. These conditions often are due to accessory nerve injury. Such an injury leads to trapezius muscle weakness, which, in turn, alters scapular biomechanics. Objective. The aim of this study was to assess which strengthening exercises incur the highest dynamic activity of affected trapezius and accessory scapular muscles in patients with accessory nerve dysfunction compared with their unaffected side. Design. A comparative design was utilized for this study. Methods. The study was conducted in a physical therapy department. Ten participants who had undergone neck dissection surgery for cancer and whose operated side demonstrated clinical signs of accessory nerve injury were recruited. Surface electromyographic activity of the upper trapezius, middle trapezius, rhomboid major, and serratus anterior muscles on the affected side was compared dynamically with that of the unaffected side during 7 scapular strengthening exercises. Results. Electromyographic activity of the upper and middle trapezius muscles of the affected side was lower than that of the unaffected side. The neck dissection side affected by surgery demonstrated higher levels of upper and middle trapezius muscle activity during exercises involving overhead movement. The rhomboid and serratus anterior muscles of the affected side demonstrated higher levels of activity compared with the unaffected side. Limitations. Exercises were repeated 3 times on one occasion. Muscle activation under conditions of increased exercise dosage should be inferred with caution. Conclusions. Overhead exercises are associated with higher levels of trapezius muscle activity in patients with accessory nerve injury following neck dissection surgery. However, pain and correct scapular form must be carefully
Title: Interventions for preventing falls in people after stroke.

Citation: Cochrane Database of Systematic Reviews, 01 May 2013, vol./is. /5(0-), 1469493X

Author(s): Verheyden GS, Weerdesteyn V, Pickering RM, Kunkel D, Lennon S, Geurts AC, Ashburn A

Abstract: Background: Falls are one of the most common medical complications after stroke with a reported incidence of 7% in the first week after stroke onset. Studies investigating falls in the later phase after stroke report an incidence of up to 73% in the first year post-stroke. Objectives: To evaluate the effectiveness of interventions aimed at preventing falls in people after stroke. Search methods: We searched the trials registers of the Cochrane Stroke Group (November 2012) and the Cochrane Bone, Joint and Muscle Trauma Group (May 2012), the Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library 2012, Issue 5, MEDLINE (1950 to May 2012), EMBASE (1980 to May 2012), CINAHL (1982 to May 2012), PsycINFO (1806 to May 2012), AMED (1985 to May 2012) and PEDro (May 2012). We also searched trials registers, checked reference lists and contacted authors. Selection criteria: Randomised controlled trials of interventions where the primary or secondary aim was to prevent falls in people after stroke. Data collection and analysis: Review authors independently selected studies for inclusion, assessed trial quality, and extracted data. We used a rate ratio and 95% confidence interval (CI) to compare the rate of falls (e.g. falls per person year) between intervention and control groups. For risk of falling we used a risk ratio and 95% CI based on the number of people falling (fallers) in each group. We pooled results where appropriate. Main results: We included 10 studies with a total of 1004 participants. One study evaluated the effect of exercises in the acute and subacute phase after stroke but found no significant difference in rate of falls (rate ratio 0.92, 95% CI 0.45 to 1.90, 95 participants). The pooled result of four studies investigating the effect of exercises on preventing falls in the chronic phase also found no significant difference for rate of falls (rate ratio 0.75, 95% CI 0.41 to 1.38, 412 participants). For number of fallers, one study examined the effect of exercises in the acute and subacute phase after stroke but found no significant difference between the intervention and control group (risk ratio 1.19, 95% CI 0.83 to 1.71, 95 participants). The pooled result of six studies examining the effect of exercises in the chronic phase also found no significant difference in number of fallers between the intervention and control groups (risk ratio 1.02, 95% CI 0.83 to 1.24, 616 participants). The rate of falls and the number of fallers was significantly reduced in two studies evaluating the effect of medication on preventing falls: one study (85 participants) compared vitamin D versus placebo in institutionalised women after stroke with low vitamin D levels, and the other study (79 participants) evaluated alendronate versus alphacalcidol in hospitalised people after stroke. One study provided single lens distance glasses to regular wearers of multifocal glasses. In a subgroup of 46 participants post-stroke there was no significant difference in the rate of falls (rate ratio 1.08, 95% CI 0.52 to 2.25) or the number of fallers between both groups (risk ratio 0.74, 95% CI 0.47 to 1.18). Authors' conclusions: There is currently insufficient evidence that exercises or prescription of single lens glasses to multifocal users prevent falls or decrease the number of people falling after being discharged from rehabilitation following their stroke. Two studies testing vitamin D versus placebo and alendronate versus alphacalcidol found a significant reduction in falls and the number of people falling. However, these findings should be replicated before the results are implemented in clinical practice.

Full Text: Available from EBSCOhost in Physical Therapy

Title: Repetitive transcranial magnetic stimulation for improving function after stroke.

Citation: Cochrane Database of Systematic Reviews, 01 May 2013, vol./is. /5(0-), 1469493X

Author(s): Hao Z, Wang D, Zeng Y, Liu M
Abstract: Background: It had been assumed that suppressing the undamaged contralesional motor cortex by repetitive low-frequency transcranial magnetic stimulation (rTMS) or increasing the excitability of the damaged hemisphere cortex by high-frequency rTMS will promote function recovery after stroke.

Objectives: To assess the efficacy and safety of rTMS for improving function in people with stroke.

Search methods: We searched the Cochrane Stroke Group Trials Register (April 2012), the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2012, Issue 4), the Chinese Stroke Trials Register (April 2012), MEDLINE (1950 to May 2012), EMBASE (1980 to May 2012), Science Citation Index (1981 to April 2012), Conference Proceedings Citation Index-Science (1990 to April 2012), CINAHL (1982 to May 2012), AMED (1985 to May 2012), PEDro (April 2012), REHABDATA (April 2012) and CIRRIE Database of International Rehabilitation Research (April 2012). In addition, we searched five Chinese databases, ongoing trials registers and relevant reference lists.

Selection criteria: We included randomised controlled trials comparing rTMS therapy with sham therapy or no therapy. We excluded trials that reported only laboratory parameters.

Data collection and analysis: Two review authors independently selected trials, assessed trial quality and extracted the data. We resolved disagreements by discussion.

Main results: We included 19 trials involving a total of 588 participants in this review. Two heterogeneous trials with a total of 183 participants showed that rTMS treatment was not associated with a significant increase in the Barthel Index score (mean difference (MD) 15.92, 95% CI -2.11 to 33.95). Four trials with a total of 73 participants were not found to have a statistically significant effect on motor function (standardised mean difference (SMD) 0.51, 95% CI -0.99 to 2.01). Subgroup analyses of different stimulation frequencies or duration of illness also showed no significant difference. Few mild adverse events were observed in the rTMS groups, with the most common events being transient or mild headaches (2.4%, 8/327) and local discomfort at the site of the stimulation.

Authors’ conclusions: Current evidence does not support the routine use of rTMS for the treatment of stroke. Further trials with larger sample sizes are needed to determine a suitable rTMS protocol and the long-term functional outcome.

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