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Increasing practice after stroke to optimise upper limb rehabilitation: a phase II randomised trial

N A. Lannin
Latrobe University, N.Lannin@alfred.org.au

C Hills
University of Newcastle, Caroline.Hills@newcastle.edu.au

A Cusick
University of Wollongong, acusick@uow.edu.au

B Kinnear
University of Wollongong, bzk222@uowmail.edu.au

G Bowring
Children's Medical Research Institute

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Abstract

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Is FAST awareness associated with earlier hospital presentation in a regional stroke cohort?

K Mohr,[1] M. Jude,[1,2] C Noon[2]
[1]Wagga Wagga Base Hospital, [2]UNSW Rural Clinical School, Wagga Wagga, NSW, Australia

Background: Awareness of FAST (Face, Arm, Speech, Time) is currently used as the main community educational tool to assist in patient recognition of acute stroke symptoms.
Aim of Study: A review those patients who were aware of FAST within a cohort of stroke and TIA admissions would define the overall awareness within acute presentations to Hospital. Determining if variances in awareness rates occurred between patients who presented within a time frame for thrombolysis therapy versus late presentations could determine the usefulness of FAST as a community based tool.
Methods: Prospectively collected data in The Wagga Base Hospital Stroke Unit includes the standardised question "Have you heard of the National Stroke Foundation FAST campaign in relation to stroke?" A retrospective review of admissions between July 1 2010 and Sept. 30 2012 was undertaken to review the numbers of patients who were aware of FAST within the ischaemic stroke and TIA cohort, both within acute (sub 4.5 hours), and late (post 4.5 hours) presentations.
Results: After exclusions, 13 patients (4%) of a total of 333 admissions were aware of FAST. There was a statistically significant relationship between FAST awareness and presentation within 4.5 hours ($p = 0.013$).
Conclusion: Awareness of Fast was low in the admission cohort, but significantly associated with early presentation within a thrombolysis potential time frame.

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NA Lannin,[1,2,3] C Hills,[4] A Cusick,[5] B Kinnear,[5,6] G Bowring[7]
[1]La Trobe University, [2]Alfred Health, Melbourne, Vic., [3]Rehabilitation Studies Unit, The University of Sydney, [4]University of Newcastle, Newcastle, [5]University of Wollongong, Wollongong, [6]Hamond Healthcare, Greenwich, [7]Prince of Wales Hospital, Randwick, NSW, Australia

Background: In response to the need for interventions to increase arm and hand use after stroke, new technologies have emerged as promising treatment alternatives. One such device, the Saebo orthosis, is designed to position the hemiplegic wrist and fingers into extension for encouraging massed practice.
Aim: To determine the feasibility and acceptability of using a Saebo orthosis within an intensive training program after stroke.
Method: Phase II randomized pre-test post-test design. Participants were randomly assigned to one of two intervention groups: usual rehabilitation, or usual rehabilitation plus wearing a Saebo orthosis for 45 minutes/day, 5 days/week. Participants were assessed pre-random allocation and at the end of the 8 week study period to evaluate hand dexterity (primary outcome).
Results: Nine participants with stroke (56% left hemiplegia) were recruited to this feasibility study (mean age 58 years; 78% male). Five participants wore a Saebo orthosis (recruitment rate was an average of one per month). Use of the Saebo orthosis plus intensive training was found to be both feasible and acceptable when used with patients in an acute rehabilitation setting. There were no between group differences, although three of the five participants in the intervention group demonstrated significant improvements on the Box & Block test, suggesting that a larger study would be of benefit (9 block increase (95% CI –4 to 21); $p = 0.153$).
Conclusion: Participants adhered successfully to the Saebo intervention which required significant increase in therapy intensity during this inpatient trial. A phase III trial would seem feasible and acceptable.

Barriers to stroke thrombolysis in a regional setting

C Noon,[1] M Jude,[1,2] K Mohr[2]
[1]UNSW Rural Clinical School, [2]Wagga Wagga Base Hospital, Wagga Wagga, NSW, Australia

Background: Thrombolysis rates in Australia remain suboptimal, with limited information in Regional Stroke Unit settings. Pre-Hospital and In-Hospital barriers may vary in importance between metropolitan and non-metropolitan sites, and defining this possible variance may have important implications in service delivery.
Aims: To review the stroke admission and management data in a single regional stroke unit, with particular reference to whether pre-hospital or in-hospital factors produced the greatest barrier to thrombolysis for acute ischaemic stroke.
Methods: A retrospective review of the prospectively collected database of admissions to the Wagga Wagga Base Hospital acute stroke unit between July 1, 2010 and September 30, 2012 was undertaken. Ischaemic stroke and TIA patients were divided between early (sub 4.5 hours), and late (after 4.5 hour) presentations. Thrombolysis rates in the early cohort, including failure to thrombolyse were reviewed and patient action at stroke onset together with proximity to the stroke unit were reviewed for both early and late presenting cohorts.
Results: Three hundred eighty-six admissions were reviewed. 4 of 16 (25%) thrombolysis suitable patients failed to receive tPA due to failed stroke recognition in ED (3 patients), and door to needle delay exceeding safe implementation time (1 patient). 81% of the total cohort arrived in hospital after 4.5 hours. No acute action at stroke onset was the factor most commonly associated with late presentation.
Discussion: Pre-Hospital barriers in this regional cohort remain the largest impediment to effective stroke thrombolysis.

From soundwaves to brainwaves: investigating the effects of choral singing on recovery from stroke and aphasia

B Matthias (nee Lannen),[1] L Worrall,[2] M Alston,[3]
A Sweetapple,[3] J Marley,[2] C Allan[1]
[1]University of Newcastle, [3]Hunter New England Local Health District, Newcastle, NSW, [2]University of Queensland, Brisbane, Qld

Background: Recovery from stroke is frequently compromised by reduced well-being, mood, socialisation and quality of life. Music and singing are recognised as powerful tools for enhancing mood and well-being and a growing body of research highlights their benefits for people living with chronic illness. Furthermore, recent evidence suggests that choir singing may improve the fluency of people with aphasia.
A number of choirs already exist for people with brain impairment, however existing research is weakened by issues of design and outcome measurement.
Aims: The paper analyses results of a pilot study conducted in Newcastle, NSW in collaboration with Hunter New England Local Health District and the University of Newcastle's School of Medicine and Public Health and School of Creative Arts. It aims to explore the effects of choral singing on the quality of life, well-being, mood, community participation and communication skills of community-dwelling stroke survivors including people with aphasia.
Methods: A mixed methods design was used. 39 people at least 6 months post-stroke were assessed before and after a 12-week choir rehearsal period. Carers were also invited to participate and a waitlist control was used. Interviews were also completed at the end of the 12-week period.
Results: The pre-test post-test results of participants will be presented. Measures of quality of life, well-being, mood, participation and communication will show whether change occurred.
Conclusion: This study will determine whether a 12-week choir effects changes in quality of life, well-being, mood, and community participation after stroke and communication in people with aphasia.