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Repetitive task training after stroke: A Cochrane review

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Introduction

Repetitive task training involves the active practice of task-specific motor activities. We updated our Cochrane Review published in 2007.

Method

We searched MEDLINE (01/10/2006 – 08/03/2016), EMBASE (01/10/2006 – 07/03/2016) and the Cochrane Stroke Trials Register (04/03/2016). 2 authors independently screened abstracts, extracted data and appraised trials. Quality of evidence within each study and outcome group was determined using the Cochrane Collaboration Risk of Bias Tool (CCRB) and GRADE criteria.

Results

29 trials with 1759 participants were included. Results were statistically significant for arm function (standardised mean difference (SMD) 0.25, 95% CI 0.11 to 0.40), hand function (SMD 0.28, 95% CI 0.12 to 0.44), sitting balance/reach (SMD 0.28, 95% CI 0.01 to 0.55), walking distance (MD 38.80, 95% CI 24.75 to 52.86), walking speed (SMD 0.33, 95% CI 0.18 to 0.49), functional ambulation (SMD 0.26, 95% CI 0.08 to 0.43), sit-to-stand (Standardised effect 0.35, 95% CI 0.13 to 0.56), lower limb functional measures (SMD 0.29, 95% CI 0.10 to 0.48), standing balance/reach (SMD 0.27, 95% CI 0.09 to 0.45) and global motor function (SMD 0.38, 95% CI 0.11 to 0.65). Follow-up measures were significant for both upper and lower limb outcomes up to 6 months post-treatment.

Conclusion

Repetitive task training resulted in improvement in upper and lower limb function; improvements were sustained up to 6 months post-treatment. Further research should focus on the type and amount of training, including measuring the number of repetitions performed.