

Practice makes Perfect” Increasing the intensity of upper limb training after stroke

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Introduction: Therapists are encouraged to provide high-intensity task-specific upper limb training following stroke to maximise recovery. Evidence from observational studies suggests, however, that patients actually receive only limited training, and that practice intensity is low.

Aim: To determine the amount of practice that can be achieved by people with stroke during an intensive one-hour, one-on-one upper limb task-specific training session.

Methods: A cohort study was conducted. Twenty people with stroke and upper limb hemiplegia were recruited. Participants were given one hour of one-on-one coaching daily for six weeks to increase their intensity of upper limb task-specific functional practice. Therapists recorded in-session practice and patients maintained a diary of all practice completed during the six week study period. Methods used to increase efficiency and intensity of training included use of task-specific feedback, photographic practice books, counters and stopwatches. Making tasks patient goal orientated, measureable, patient driven, and providing education were also key strategies.

Results: Over the 6-week study period a total of 30 hours of additional training above “usual therapy” was provided. The mean (SD) amount of active practice and number of repetitions completed per one-hour session were 39 minutes (7) and 145 (183) respectively.

Conclusion: One hour of one-on-one upper limb coaching produced significantly greater practice in stroke patients, both in terms of time spent practicing as well as number of repetitions completed. The use of study strategies provides clinicians with solutions for implementing current evidence into their own daily practice.