Stuck, R. Marshall, L., and Sivakumar R. (2012) Saeboflex upper limb training in acute stroke rehabilitation: feasibility study. *International Journal of Stroke,* 7 (2), 1-79.

Introduction: Functional recovery of the upper limb (UL) is often poor after stroke. SaeboFlex was designed to improve functional recovery of the UL through repetitive task practice and has only been evaluated in chronic stroke. We sought to explore its feasibility in acute stroke.

Method: Seven acute stroke patients (<4 weeks since stroke, three males, four females, age range: 39-83) with moderate/severe UL weakness participated in SaeboFlex sessions for a maximum of 3x45 minutes/day for 12 weeks in addition to conventional rehabilitation. A battery of measures was taken at baseline and 12 weeks along with end-of-study patient experience questionnaire.

Results: Primary outcome: Action Research Arm Test (SD) scores at baseline and 12 weeks were 10.0 (8.2) and 35.8 (21.1) respectively ($P<0.05$). Using change of score criterion of 12 (dominant) and 17 (non-dominant), six out of seven achieved clinically significant improvements. There were statistically and clinically significant improvements in the other primary outcome UL, Motrictiy Index and various secondary outcomes (Modified Barthel Index, UL-MAS, BERG scores, and Visual Analogue Scales). However, Stroke Impact Scale changes were not significant. Shoulder complications occurred in one patient. No other adverse events were recorded. No patients trained at the maximum intensity. All patients felt that SaeboFlex facilitated recovery.

Conclusion: SaeboFlex training in acute stroke was feasible and facilitated clinically significant improvements. Family involvement improved patient's motivation and participation in training. Being a feasibility study, we urge caution in interpreting these results and call for future research for which our findings would be useful to inform study design and protocol.

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