Reviewer’s report

Title: Gothenburg Very Early Supported Discharge study (GOTVED): a randomised controlled trial investigating anxiety and overall disability in the first year after stroke

Version: 0 Date: 25 Jul 2019

Reviewer: Keith M. McGregor

Reviewer's report:

The current manuscript is a report of an assessment of anxiety and presence of disability after ischemic or hemorrhagic stroke post-discharge from a hospital system in Gothenburg, Sweden. The approach was an assessment of a very early structured discharge (VESD) cohort as compared to a usual care discharge within the Swedish medical system. The study was a clinical trial and the data was collected from 2011 to 2016 with participants randomized to one of the two groups. The approach was an intention to treat model for the clinical trial. Outcome measures were anxiety score on the HADS-A scale and disability using a modified Rankin Scale. Outcome measures were taken in the acute phase (5 days post stroke), after 3 months, and after 12 months.

The study found no differences at baseline (in hospital) in regards to anxiety or Barthel Index (a measure of activities of daily living). Participants in the VESD program received structured care involving home visits from nurses, physiotherapists, and occupational therapists on a thrice-weekly basis. Due to a randomization error, of the 140 participants in the study, 69 were allocated to the VESD and 71 allocated to the usual care control. The VESD care ended at a patient agreed upon date, which was reported to be 4 weeks after discharge.

The authors report significantly better anxiety scores at 3 months in the VESD group in addition to higher Rankin scores. However, these differences were not significant at 12 months when comparing controls with the VESD group. Of note, the VESD group was not discharged from the hospital earlier as assessed by statistical significance (12 days vs 14 days for the control).

The authors conclude that VESD is non-inferior to usual rehabilitation with regards to anxiety by patients. In addition, the authors state that VESD may lead to faster recovery, though this recovery difference did not appear significant at 12 months post-insult.

Comments:

This study is largely well-done and reports on patient anxiety after early coordinated discharge. The finding of non-inferiority at discharge in regards to anxiety is noteworthy for holistic patient
health, but it is not ultimately the goal of a rehabilitation program, which is to facilitate re-entry into daily life after injury. As such, the primary interest really should be the health outcomes from the health scales including changes in the NIHSS. As the inclusion criterion was mild to moderate stroke, the authors could focus more on the physical outcome measures, which yielded differences due to the program. This would likely increase the acceptance of the VESD program into more general practice, as I believe is the goal of the project.

Otherwise, I have few other comments besides using care with abbreviations and some minor typographical errors.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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I am able to assess the statistics

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