Reviewer’s report

Title: Use of robot technology in passive mobilization of acute hospitalized geriatric medicine patients: a pilot test and feasibility study

Version: 0 Date: 07 Nov 2019

Reviewer: Marcel Olde Rikkert

Reviewer's report:

Bertelsen et al may be congratulated for having performed and described a state of the art pilot and feasibility study in the paper entitled: "Use of robot technology in passive mobilization of acute hospitalized geriatric patients: a pilot test and feasibility study".

They rightly point at the necessity for performing both types of preparatory studies before undertaking a randomized controlled trial. The methods of both studies are clearly described and fulfill the CONSORT criteria for pilot and feasibility studies. The table summarizing the aims, methods and outcomes of the feasibility study is very helpful to insight in the research performed at a glance.

The major concern I have with the study is the tension between having been able to include only less than 10% of the patients admitted at the geriatric ward, and their firm conclusion that robot application is feasible for geriatric inpatients. Their exclusion criteria select only the cognitive best patients, exclude all patients who are admitted as orthopedic-geriatric patients, and exclude the most frail. This seriously limits the external validity of their conclusion on feasibility. The paper would be strengthened by clearly elaborating on this.

Moreover, not only the feasibility, but also the indication and performance of robot-assisted moving limits application in practice. There is only very limited place for passive movement in the management plan during rehabilitation. This seriously limits the relevance of the study performed. Moreover, if indicated and correctly applied by the physiotherapist, it costs more time than while doing manually. These relevant conclusions on the reasons to use the robot deserve more room in the discussion, as the introduction of the robot was motivated by the option of saving time and having a more efficient use of the available work force.

The study ends with uncertainty on the effects of the pilot and feasibility study on their plans for the RCT. It affects these plans, but the readership looks forward to learning how. Will the RCT be conducted still on passive movement support or not? If not, will a new pilot and feasibility study be performed? Now the paper ends without telling how the story ends.

Next, addressing some minor points would also benefit the quality of the paper:

- Several grammar mistakes are made throughout the text. A native speaker should best correct these.
- In the methods section the procedures of qualitative evaluation can be clarified further. It would be good to know whether the interview results were transcribed verbatim and evaluated independently by two researchers. Possibly also software tools were used in this evaluation such as Atlas-T.
- It would also be of added value to know whether the researchers reached data saturation, and how this was judged.
In the inclusion criteria it is stated that a positive CAM score would exclude a patient, however it would be informative to know what was considered a positive CAM score.

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