

## **Reviewer's report**

**Title:** Early coordinated rehabilitation in acute phase after hip fracture - a model for increased patient participation.

**Version:** 0 **Date:** 25 Jul 2017

**Reviewer:** Lise Kronborg

### **Reviewer's report:**

Response letter from reviewer

Thank you for a well written manuscript. The following response will address the sections of the manuscript chronologically with the purpose to outline suggestions for changes that may improve the quality of the manuscript and make the message of the study clear and useful to the reader.

Some minor details have been marked in the manuscript with Tracked Changes and comments provided throughout the text.

Overall an interesting study but the manuscript needs more work done on description of intervention, improved discussion including discussion of this study against known literature and finally, a clear aligned conclusion.

Abstract:

The spelling is inconsistent as the text is formatted in both US and British spelling changing back and forth in this paragraph as well as the entire manuscript. Please align spelling format throughout the entire manuscript as this continues.

Line 37: Please clarify which outcome was the pre-defined primary outcome and which were the secondary outcomes. Also mention if the outcomes were pre-defined as such prior to inclusion and analyses. Please report the results section here correspondingly. (Primary outcome... In the primary analysis...)

Line 40-41: This sentence does not make sense without further explanation, since no outcome is mentioned and it is unclear here which four questions these results correspond to before you have read the entire manuscript. Please clarify.

Line 42: Please add the time point of outcome assessment (at discharge/ 1 month), since this is mentioned in the conclusion.

Line 44-46: This sentence is hard to comprehend. It seems unclear to this reviewer what the percentages provided tell. Is it risk for future falls? How is this then dependent on the measure BBS etc.? The reporting of the results would benefit of further explanation and revision.

#### Introduction:

A minor abbreviation of the introduction could improve the clarity of the rationale for the study. Please see comments in the manuscript.

Line 66: You may wish to put the message in different words than "improve mortality". "Reduce" or "decrease" may be a better choice.

#### Method:

Please see comments in the manuscript.

Line 140-143: It is a bit cloudy in what way precisely this add-on intervention differed from the Control Group in means of approach to the patient. - How was the focus and encouragement administered? Did the PT/OT's use a pre-defined manual for the active discussion? I realize this is hard to explain. None the less it is very important information to the readers that might wish to replicate your study.

Line 146: Earlier than within 24hours postoperatively? Or compared to what time point?

Line 153-154: Where the assessors blinded to intervention? Please state this information in the manuscript.

#### Outcome Measures:

Please divide your outcomes in Primary outcome, Secondary outcome and Other outcomes to clarify the priority of outcomes and report results correspondingly. See manuscript for a few comments in text.

Table 1: Considerable more patients with trochanteric fractures in the control group. Non-significant, but with the likelihood that the control group is more compromised from baseline/early postoperatively than the intervention group. A higher proportion of patients in CG are discharged to own home. How does this correspond to optimistic interpretation of the results of the intervention as providing improved patient participation in this study but with more patients from the IG discharged to intermediate rehab?

Line 175: How were these questions validated? This is your primary outcome. How can you be sure that the questions collect the data you expect? Do you have references on other studies supporting this type of assessment of self-rated degree of participation? If so, please provide references to support the strength of your assessment.

Line 181-183: The reviewer is unable to get access to reference number 24 by Asplin G et al. Also unable to find any other references on studies including the TLS-BasicADL. Thus, it is difficult and requires some imagination to evaluate the strength and quality of this outcome assessment.

Line 199: Please provide reference to the Katz ADL Index.

Line 181-204: Section in general; this section refers in circles to 4 references concerning 3-4 different ADL outcome measures. Two of these references are of older date as mentioned, one is not published and the last is unobtainable for this reviewer. The section would benefit from addition of more recent studies using these outcomes measures in order to support the relevance and strength of your selected outcome.

Statistical methods:

Line 255-256: Please reveal a bit more of what your clinical assumptions behold. How did you arrive at 13 points as a relevant between group difference? Was this difference pre-defined prior to enrollment?

Line 257-258: A sample size of 92 was required including estimated dropouts. Why did you include 126 participants then? 30% more than needed based on power calculations seems a rather large extra inclusion. Or was the power calculations perhaps performed after inclusion? If so, it should be mentioned here for transparency.

Line 258-259: Mean SD reporting requires normal distributed data. If not all data in your study are normal distributed, it would be correct to mention in this section that data are reported as mean SD or median (min-max) as appropriate. Hence report your data corresponding to this.

Results

Figure 1: "Did not meet inclusion criteria" or "Did not fulfill inclusion criteria". Dropout before discharge box (Control Group)- be consequent in the use of bold/normal font.

Outcome measures

This reviewer suggests reporting the results as Primary outcome first followed by Secondary outcome and so on. Thus, reporting follows the statistical method rather than the outcome.

Line 297 + Table 3. Please see comment in manuscript.

Table 4: You may need to use non-bold formatting of text in your table and if so, you need to mark your significant results in a different way and describe this in table content text. Please check author guidelines for tables.

Line 340/Table 5: same as previous comment; please provide only the result corresponding to the correct statistics. Mean SD for normal distributed data and Median Range for non-normally distributed data. Your choice of analysis suggests non-normal distribution here. And, please align fonts to be only one type in Table 5 and connected text.

Line 349-351: Please revise this sentence to improve understanding of your result. For example: At discharge 93 and 95 % in the IG and CG respectively had failed to climb above the cut-point for risk of falls while the proportion of patients at risk was decreased to 75 and 78% respectively for the groups at 1 month.

Line 353-354: Which means??... Please explain the results a bit further to make your message clear. Same comment for the TUG result reporting Line 355-356.

Line 361: Where have you defined adverse events?

Line 370-372: Was your study powered to show this? This would stand clear if you reported statistics and results consequently throughout the manuscript.

## Discussion

Please see manuscript for comments in the text also.

Line 368-370: Please revise this sentence for language and grammar.

Line 376: How does this results place your study in the literature on patients with a hip fracture? Does this differ from other studies or is it similar to previous findings? Please relate your finding to other studies.

Line 384-385: Please revise sentence. First you talk about staffing and then you talk about a intervention group in a different study. Please revise to clarify message.

Line 399-402: As mentioned previously in comment, your intervention stands a bit unclear in description. How do I precisely reproduce the more pro-active progression of treatment as you describe it here?

Line 405-407: The difference between intervention and control treatment seems very small and random in frequency.

Line 414-418: Please revise sentence and grammar to improve language and clarity of statement. Also the sub analysis of secondary outcomes must be interpreted with caution as you mention.

Line 439-441: Please revise sentence to improve language. Also please comment on which clinical action may be relevant to meet the implications of your results. In example; this calls for a strengthened post-discharge collaboration between OT and PT in order to meet the needs of rehabilitation for the majority of patients 1 month after hip fracture.

Line 458-463: This conclusion tells nothing about your specific results. The conclusion should be identical to that of your abstract or differ only discretely. Please revise to conclude specifically on your results in line with your conclusion in the abstract.

Line 484: Ethics approval and consent to participate: The reviewer finds no information in the manuscript files of this clinical study reported in any Clinical Trial registry prior to enrollment. Is that correct? If not, please provide information and name of registry and record number to the registration in order to comply with good clinical practice. It may be provided elsewhere in the submission of the manuscript. If so, please forget this question.

**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?**

If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

### **Quality of written English**

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

### **Declaration of competing interests**

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

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