Reviewer’s report

Title: The impact of an exercise physiologist coordinated resistance exercise program on the physical function of people receiving hemodialysis: A stepped wedge randomised control study

Version: 3 Date: 12 July 2013

Reviewer: James Sharman

Reviewer’s report:

The paper details the rationale and design of a study to determine the impact of exercise intervention (overseen by exercise physiologists) on the primary outcome of physical function (measured using three tests). The manuscript is generally well presented, but the authors are asked to consider the comments and questions below.

- Minor Essential Revisions
  • Several aspects of the study could have more information presented in accordance with the CONSORT statement. In particular, more details on randomisation procedure (sequence generation, allocation concealment etc), blinding and also analysis with respect to covariates. Details of the online trial registration would also be good to include.
  • The primary outcome is actually three variables under the one overarching label of ‘physical function.’ This raises two questions 1) shouldn’t power calculations be presented for each physical function variable? 2) Doesn’t the p value to denote a significant effect need to be further adjusted for family wise error possibility?
  • Introduction, page 4, last para - details of the outcome measures are different to the abstract; please align for consistency.
  • Inclusion and exclusion criteria, page 6 – clarification is needed as to the reason for exclusion at the discretion of the medical Head of Nephrology. Is this criteria only relevant to those with a contraindication to exercise or are there other reason/s? Please indicate in the text and clarify in the figure.
  • Could more details of how the drug name, dose and frequency are being recorded be included? Please consider asking participants to bring along the medication to the clinic visit to confirm rather than taking details from charts pre and post intervention. Further, the effect of intervention on changes in medication may be masked in the absence of more exact quantification (for example by using the daily defined dose system as per WHO collaborating centre for drug stats methodology). The quantity of psychotropic drugs is especially important regarding falls risk.

- Discretionary Revisions
• Last paragraph of the introduction, page 5 – suggest modifying to; “This work is expected to be significant given…..”

• Given the prominence of exercise physiologists in the study design, the authors may consider including a description of the qualifications required to be an accredited exercise physiologist in Australia. This is not generally known and would probably be of interest to readers.

• The table doesn’t really need repetition of “1,2,3” – Suggest removing these columns and modifying the title to words to the effect of; “Table 1. Outcome data measured in all participants at 0, 12, 24, 36 and 48 weeks.” The cost utility outcomes (PBS and MBS) measured only at week 48 can be detailed in the subtext of the table.

• Data collection is made at each time point, but the figure only mentions that data is collected at baseline and week 48. Please modify so that it is clear at which points data is collected.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests