Reviewer's report

Title: Effectiveness of physiotherapy exercise following hip arthroplasty for osteoarthritis: a systematic review of clinical trials.

Version: 1 Date: 4 February 2009

Reviewer: Kåre Birger Hagen

Reviewer's report:

Dr. Minns Lowe and colleagues have conducted an original and interesting review of the effectiveness of physiotherapy exercise following hip OA arthroplasty. Physiotherapy for these patients is common in most European countries and the paper will certainly be of interest to BMC's readers, and is likely to attract a broad attention. However, the manuscript can be significantly improved, and I hope the comments below may be of help in the process. The comments are structured in accordance with current recommendations from the BMC Editor.

1. Is the question posed by the authors well defined? YES

2. Are the methods appropriate and well described? NO

MAJOR COMPULSORY REVISIONS:

The methodological assessment. The authors have mixed validity questions and questions related to quality of reporting which is confusing both for the reader and the authors. I would strongly suggest to separate these two different topics, and emphasise the validity rating when it comes to the data synthesis. I would also suggest to move the description of study quality from page 6 to the results section, and again emphasising validity.

Results.

I find the result section extensive and hard to read. I would strongly suggest to organise the the result section in following main sections:

A) Identification of trials, B) description of trials and C) effects of intervention. For subsection C I would recommend to organise in comparisons rather than outcomes. I think there are two or three trials that compares exercises with 'no programme', which has the potentials to determine the absolute effectiveness. And related to this: It is not clear to me whether the statistical pooling is done only for trials with (approximately) similar interventions and control groups (which is an absolute prerequisite for doing statistical pooling). Again I would suggest that the forest plots are organised in comparisons rather than outcomes.

I would strongly suggest not to report within group analyses, since the purpose of a (randomised) controlled trial is to compare outcomes between groups.

Due to the extensive (and confusing) methodological assessment it is not clear to
me whether randomised and non randomised studies are pooled. Are the methodological assessment considered when it comes to data synthesis?

MINOR OR DISCRETIONARY REVISIONS:

I would suggest a clearer structure (and description) regarding inclusion criteria (selection) p 4-5, i.e. study design, participants, interventions and control interventions and outcomes

The statistical work seems to be by the book, but my experience with this particular type of meta analyses is limited and it may be appropriate to consult another reviewer on the statistical issues.

Is it possible to synthesise the information in tables 4 and 5 into one table regarding the description of the included studies, and then present the effects in a separate subsection?

3. Are the data sound? YES (I can not see that anything more can be done by the authors to improve the data quality)

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? NO, should adhere to the QUOROM statement checklist (MAJOR COMPULSORY)

5. Are the discussion and conclusions well balanced and adequately supported by the data? YES, partly

6. Are limitations of the work clearly stated? YES, partly, but should be assessed again (in a revised version of the manuscript)

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? YES

8. Do the title and abstract accurately convey what has been found? NO (not the findings, but YES for the research question)

9. Is the writing acceptable? YES

Level of interest: An article of importance in its field

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