Reviewer's report

Title: Prophylactic physiotherapy intervention following abdominal surgery: a synthesis of evidence and expert opinion.

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Reviewer: Nerys Frances Woolacott

Reviewer's report:

This is an interesting paper: the basic research question is very interesting and potentially useful. The idea of conducting a review of the evidence and then using a Delphi technique to derive a practice algorithm seems a very good one. However, the paper itself and maybe the actual execution of the methods is disappointing. Overall, the paper gives the impression that the Delphi exercise was used instead of the evidence rather than in addition to it.

Major compulsory revisions

The paper would benefit from much more background information and greater clarity regarding the methods used.

Key areas for improvement of the background are:

• Why is UAS specified? Is it a particularly problematic for PPC?
• What PPCs are of real interest? Infections or all?
• Assertion with regard to ‘uncertainty’ of existing evidence not adequately supported

The systematic review part of the study seems flawed – though this could be due to how the authors have reported their review. There seems to be a lack of clarity regarding the review question or questions:

• What types of interventions are included under ‘physiotherapy? Was it the same across all the systematic reviews?
• What complications are of interest? Just infections or others?
• What outcomes are of primary interest? On line 323 the authors state that ‘the primary outcome on interest….needs to be defined’ – could this not be done for the review?

Given that only two systematic reviews were included in the ‘review of reviews’ and they comprised only 48 primary studies a better starting point would have been a properly conducted new evidence synthesis of these 48 studies addressing the present (clearly defined) question rather than a narrative overview of the two previous systematic reviews. Given the apparent poor quality of many of the primary studies it may have been appropriate to synthesis the better quality trials that most closely addressed the review question. Was this considered?

The connection between the review and the Delphi exercise is somewhat
unclear.
• What information did the clinicians use to inform their contribution? For example were they given just the results of the present review or all the previous SRs or all the primary studies or none of these?
• The general statements arising from the review part of the study are in contrast to the very detailed level statements dealt with by the Delphi exercise and included in the algorithm.
• The new evidence synthesis of these 48 studies addressing the present (clearly defined) question mentioned above could have been used as the basis for the Delphi exercise.
• It is not clear to me how the draft statements were derived from or are linked to the evidence base as represented by the clinical trials or SRs.
• I do not think the text descriptions of which statements were changed at all helpful. The most important presentation here is Supplementary E data E1. This is an essential part of the paper and cannot be considered supplementary.

The paper refers to evaluating the cost-effectiveness of physiotherapy following UAS, but there is nothing in the paper that informs this. Such references should be removed. Evaluation of cost effectiveness is an additional study.

If the study did achieve its aim of combining evidence with clinical opinion, this needs to be focused on more in the discussion section.

The final sentence of the conclusions, whilst possibly true is not derived from the work as presented.

Minor essential revisions
Line 37 ‘limited’ number of primary studies seems inappropriate when the number is quite high
Line 48 - ‘increasing’ number of SRs and yet only two included in this paper? Also the reviews listed do (from their titles) appear to address slightly different questions (as is so often the case with SRs). It is not clear how well each contributes to the question for the present study.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests