Reviewer’s report

Title: Optimizing Search Strategies to Identify Randomized Controlled Trials in Medline

Version: 1 Date: 5 July 2005

Reviewer: K Robinson

Reviewer’s report:

General

As an increasing number of systematic reviews are being completed, often within tight time and cost restrictions, there is a need for efficient search strategies. This paper tries to address this need by developing a strategy more sensitive than Phases 1 and 2 of Cochrane HSSS but also more precise than using all phases of HSSS (phases 1, 2 and 3). It is, therefore, a potentially very useful article. There needs to be some clarification about methods, rationale and message so as to allow a reviewer to make an informed decision about what strategy to use when searching for RCTs.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The abstract touts the three additional studies identified by the addition of versus but fails to note at what cost. The three phases of the original HSSS retrieved 56 additional studies. What are the consequences of not identifying those studies for inclusion in a SR?

2. The original HSSS includes text words with the qualification [tiab] (searching title and abstract). The authors add text words with the much less precise qualifier [tw] (text word). What is the rationale for doing so? What are the consequences of doing so?

3. Page 5 - Many Cochrane reviews do not detail in the text the specifics of the search strategy used, often referring to the specific Collaborative Review Group (CRG) search strategy. I would suggest adding some discussion of this issue, including how this impacted the number of reviews identified for screening (169 of xx?) as well as how this influenced the type of reviews retrieved. As shown in table 1, the Musculoskeletal CRG had many reviews selected whereas other CRGs with many reviews in the CDSR are not represented.

4. In the conclusions, are the authors suggesting the use of the strategy with versus added in those cases when reviewers are not using all three phases of the HSSS? Please clarify text in conclusions, and abstract, to provide appropriate guidance to those completing reviews (do so in relation to point 1 above).

5. Page 4 - The objective of this study would be strengthened with the addition of a statement justifying the testing of the addition of terms to the original HSSS and the apparent lack of consideration of the other terms that have been suggested, and tested, since the 1994 publication of the HSSS.

6. related to point 1 and point 5, why use this strategy and not some of the others developed?

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. In Background of Abstract - I think the sentence is supposed to send with inclusion not precision.
2. Page 5 - Not sure what this part of the sentence adds anyway, but would suggest removing permanently
3. Page 5, Finding Index - need to add n to known-item in last sentence
4. Page 9 - second to last sentence, change is to has add is before still.
5. page 8 - ‘123’ not in subscript about half-way down page.

Discretionary Revisions (which the author can choose to ignore)

1. Background - is there a reference for the tendency of systematic reviews (SR) to be completed on RCTs? I would suggest a slight rewording here as the notion of a tool has just been used. Also, I think that the issue is that RCTs are seen as the gold standard for the evaluation of treatments/therapies. Are most SRs assessing effects of treatment?
2. Page 6, Results - suggest changing first sentence to indicate that the SRs were identified (not selected) and that this represented X% of the number of reviews.
3. I would suggest that the authors consider using Number Needed to Read or some other metric to get across to systematic reviewers/authors the benefit of using the strategy that they are suggesting.
4. Were additional studies, not included in the reviews, identified by the revised strategies?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I am the author of a referenced paper concerning the development of a search strategy.