Reviewer's report

Title: Disagreement in primary study selection between systematic reviews on negative pressure wound therapy

Version: 3 Date: 1 February 2008

Reviewer: Erik von Elm

Reviewer's report:

General comment:

The paper reports on a retrospective analysis of in the context of a systematic review. It compares the original literature retrieved and included in the authors' review with those included in recent reviews on the same topic.

Generally, it is not surprising that there will be differences in study inclusion if different search strategies and sources are used. Since the authors of the IQWIG review had access to the previous reviews it is clear that they find more literature and did not miss out any from the previous reviews. However, the question whether differences in study inclusion have an impact on pooled estimates of the reviews and conclusions was unfortunately not addressed. It remains unclear how robust the results of this particular systemic review and others are to in-/exclusion of primary studies.

Major compulsory revisions:

1. Background: The first 3 paragraphs do not read like an introduction to a methodological paper but to a NPWT review. Detail on NPWT is secondary here. The more general question of review methodology should be used to set the scene.

2. Discussion: There is much about inclusion of non-RCTs in systematic reviews here. The authors say that inclusion of such studies in SRs is inconsistent and controversial. However, their following arguments are not convincing: a) Why is the differing susceptibility to selection bias a threat to the validity of systematic reviews including non-RCTs? A clear difference between SRs as a means of reviewing a comprehensive body of evidence (be it randomized or not) and statistical pooling of data (e.g. in meta-analyses) needs to be made. A SR can be valid even if the primary literature is very poor. b) Last sentence on page 8 could be read as if the relative difficulty in identifying non-RCTs was an argument for excluding such studies a priori. c) The discussion is based on a distinction between RCTs and non-RCTs. It falls short of a clear definition of the latter. There are many different study types that can be seen as non-RCTs. This can be everything from controlled intervention studies (which seem to have been meant here) to classical observational studies. The present findings should not be generalized to recommend excluding all kinds of non-randomised studies from systematic reviews on any topic and for any outcome of interest.
3. Figure 1: The numbers in the flow chart do not match with the ones published in the final report (reference 7) on page 21 (Accessed at: http://www.iqwig.de/download/N04-03_Abschlussbericht_Vakuumversiegelungstherapie_zur_Beurteilung_von_Wunden.pdf). As this is a retrospective analysis based on this report, such differences need to be explained or corrected.

Minor essential revisions:

4. Methods p5 para 2 (For the additionalâ€¦.): This sentence is unclear. What is meant by a primary study pool?

Discretionary revisions:

5. Results p7 Therefore the outcomes in the test group were confounded. Because confounded has a defined meaning in epidemiology, it may be better to use another term here.

6. Conclusions p10: Rephrase 1st sentence. I think it is not the agreement that differs.

7. Did the authors contact the authors of the four other reviews to discuss differences in study inclusion? While some differences in study inclusion can be explained easily, others could have become clearer when discussed directly.

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 limited interest

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.