Reviewer's report

Title: Consensus-Based Recommendations for Investigating Clinical Heterogeneity in Systematic Reviews

Version: 1 Date: 19 February 2013

Reviewer: Markus K. Diener

Reviewer's report:

The authors Gagnier et al present a recommendation how to deal and to investigate with different forms of clinical heterogeneity in systematic reviews. The reaserch question of this article is extremely important, since investigating clinical heterogeneity is underrepresented in systematic reviews, which might lead to false interpretation of research findings. The methodology (Delphi system) is excellent, the list of participants reveals high expertise. The writing and presentation is excellent.

Only one minor comment:

the abstract refers to the fact, that numerous SR fail to support direct decision making, which is mainly due to heterogeneity or sparse existing evidence. I think this line of thought is important within this context, but the authors did not emphasize this in the introduction section, which should be added. Within this context I would like to suggest an analysis of Cochrane Reviews (surgical), which showed "need for further research" in about 50% of Cochrane Reviews: Diener MK Surgery. 2009 Sep;146(3):444-61.

(Discretionary Revision)

Level of interest: An exceptional article

Quality of written English: Acceptable

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

Declaration of competing interests:

No competing interests