

Reviewer's report

Title: Assessing the order of magnitude of outcomes in single-arm cohorts through systematic comparison with corresponding cohorts: An example from the AMOS study

Version: 1 **Date:** 5 October 2007

Reviewer: Sunita Vohra

Reviewer's report:

General

This is an interesting approach to a common problem, i.e. how should authors describe the effectiveness of the intervention they studied, in the context of other therapies for the same condition.

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

It would be helpful if the authors could acknowledge the major limitations of their approach. In particular, it is well known that open label studies that do not randomize generally have greater estimates of treatment effect than studies that do. For this reason, it seems unreasonable to compare the treatment effect from studies in a single arm cohort study to effects from "corresponding cohorts", half of which were randomized controlled trials. Although the authors state their approach cannot be used to assess comparative effectiveness, it seems that they proceed to do so. That is they do quantify effect sizes, and claim that anthroposophic medicine is at least as effective ("same order of magnitude") as other treatments.

An additional limitation of this approach is that the authors do not take into account the differences in setting and participants that may occur between studies, lending itself to biased estimates (comparing apples and oranges). I agree with the authors that this approach may be preferable to the current phenomenon of brief comparisons in discussion sections of papers, but they need to acknowledge the methodological limitations of their approach in a more transparent fashion.

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

Did the authors correct for multiple comparisons? (they state 517 comparisons existed for aggregation).

Discretionary Revisions (which the author can choose to ignore)

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

Level of interest: An article whose findings are important to those with closely related research interests

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.