



Clarification on the issue of publication bias and sensitivity analysis

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Reply to: Peters JL, Moreno SG, Phillips B, Sutton AJ. Are we sure about the evidence for zinc in prophylaxis of the common cold? *Expert Rev. Respir. Med.* 6(1), 15–16 (2012).

We thank the authors for their comments on our editorial [1]. The authors have commented that the three results reported (incidence rate ratio, child absenteeism from school and antibiotic prescription) are all based on the findings from just two studies, even though six studies are described. The authors have also given references for this. We think that the comments may stem from the way in which the Cochrane review has been interpreted [2]. We believe that we have clearly described in the text, as well as in the summary of results table in the review, that the above three results have been pooled from two studies. The rest of the studies quoted by the authors were excluded (one of them was a retrospective chart review). Therefore, in our opinion, there is no chance of selective reporting of the trials in the review. We hope that the evidence generated from future trials (apart from the two trials, discussed) might support or refute the present evidence.

Regarding the second comment, we do not feel these are related to the editorial (as this is related to the therapeutic effect of zinc). We have already attempted to address them, and these have been incorporated in the updated review (available in the Cochrane library). Regarding the conduction of sensitivity analysis, we fully agree with the authors that it should be carried out whenever evidence of small study effects is found. However, as there were not enough studies, it was difficult to conduct sensitivity analysis (this has been described in the Cochrane review) [3]. In a future update of the review, if more studies are available, we would definitely conduct a sensitivity analysis. Although the biases in the review have been discussed, the funnel plot figure was not included in the review (in fact many Cochrane reviews do

not include a funnel plot), and it might be included in a future update of the review.

The authors also express their concern that publication bias was not considered carefully in the Cochrane review, which makes the conclusion less robust. We agree with the authors that publication bias could not be ruled out, which might also compromise the findings of the present review (almost all systematic reviews face the same problem of publication bias) [4]. But what is important is that, although publication exists, there is not a viable solution to it. Moreover, funnel plots have their own limitations [3,4]. Regarding the application of random and/or fixed model effects in the meta-analysis, they have their inherent problems [3]. As a result, whenever there is marked heterogeneity, a random effect model is usually applied.

Finally, we also have the same concern regarding the final conclusion (which we have more or less discussed in the Cochrane review) and that is why no recommendation could presently be made on the use of zinc for the common cold.

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