Reviewer’s report

Title: The relative efficacy of nine osteoporosis medications for reducing the rate of fractures in post-menopausal women

Version: 2 Date: 14 June 2011

Reviewer: Lan Ho-Pham

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Specific comments

However, having gone through the paper, I would like to raise a number of concerns which I hope the authors will take into account in their next submission:

1. The authors point out that a similar meta-analysis has been published, but they argue that there is a need for another meta-analysis. I think their argument is ok, because the present analysis offers indeed more information than the previous analysis. However, I think the authors could do more to bolster their argument. From a clinical point of view, I think we would like to know the clinically relevant effect rather than statistically significant effect (which the authors have done). In other words, could the authors define a region of clinical equivalence or non-inferiority and then work out the probability of clinically significant effect?

2. There are major differences in background risk among the trials which could potentially compromise the interpretation of comparison, and I am wondering whether one could directly compare treatment efficacy between trials?

3. Could the authors estimate the number needed to treat based on their indirect comparison?

4. It seems that the authors are reluctant to make a specific conclusion (page 20). What is the “take home message” from this analysis? Is it reasonable to say that etidronate is the “best” drug in terms of non-vertebral fracture reduction?

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.