Reviewer’s report

Title: Fracture prevention with calcium and vitamin D supplementation: is there publication bias?

Version: 1 Date: 8 December 2006

Reviewer: Jonathan D Adachi

Reviewer’s report:

General
While I agree that the under reporting of negative trials may explain the differences between the meta-analysis and the 3 recent RCT's, there are other potential explanations for the differences that should be discussed.

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

1. As you point out adherence to therapy is a real problem in all of the recent RCT's. When a subset analysis was done on only those who completed the study on medication, there was in fact a reduction in fractures.

2. The WHI has another confounder that needs to be considered. Many, in fact as I recall the majority were also on estrogen. This is a confounder that needs to be discussed. I believe that in this study it would be safer to conclude that vitamin D and calcium does not seem to have the same impact in those on estrogen compared to those who are not on estrogen.

3. Another possible explanation may be that vitamin D and calcium is of limited benefit in those who have adequate calcium and vitamin D intake.

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

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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: No