Reviewer’s report

Title: The comparative effectiveness of statin therapy in selected chronic diseases compared with the remaining population

Version: 1 Date: 1 March 2012

Reviewer: G. B. John Mancini

Reviewer’s report:

Major Compulsory Revisions:
The discussion is not really compelling. There is no discussion of how the results in the various disease groups compare to either RCT’s showing benefit/lack of benefit or to important, non-RCT’s suggesting benefit. The focus on levels of TC and differences in statin efficacy is not as interesting as whether the current analyses are concordant/discordant with RCT’s and in what chronic disease states RCT’s are warranted. The marked All Cause Mortality benefits across the board in PP and almost uniformly in SP are not discussed. There have been major debates about statin utility in CKD, PP in DM, and COPD (both PP and SP) which are ignored. In contrast, some national guidelines suggest that statin therapy for RA is absolutely warranted, whereas this analysis suggests that such therapy is not useful in secondary prevention! The authors are missing important discussion opportunities.

Table 1 is unavoidable but perhaps Table 2 should be in an appendix. If not in an appendix, perhaps it could be summarized graphically based on perhaps CV mortality or all-cause mortality since the relative differences in virtually all the crude end-point rates are somewhat similar.

Minor Essential Revisions
Table 3 should bold the significant adjusted HR’s for clarity.

Discretionary Revisions
It is not helpful to use the (very correct) terms "prevalent" and "incident" CV events when the flow would be better maintained if the terms "primary" and "secondary" prevention were used throughout.

Level of interest: An article of outstanding merit and interest in its field

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