Reviewer's report

Title: Predictors and correlates of adherence to combination antiretroviral therapy (cART) for chronic HIV infection: a meta-analysis.

Version: 1 Date: 28 May 2014

Reviewer: Ira Wilson

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MINOR DISCRETIONARY REVISIONS (EDITORS MIGHT HAVE A POINT OF VIEW ABOUT THESE AS I THINK THERE ARE BETTER WAYS TO PRESENT THE DATA; BUT I EMPHASIZE THAT THIS IS A MATTER OF PRESENTATION NOT OF SCIENTIFIC CORRECTNESS OR VALIDITY)

Overall, this paper was clearly written, methodologically sound, and the authors are careful in describing the strengths and weaknesses of their work. It is a timely and useful contribution to the literature.

More specifically, the question posed by the authors is clear and well defined. It is not exactly a novel question, but their meta-analytic approach has not previously been applied to this topic. The methods are quite appropriate and well described. The details in my view are sufficient to allow the work to be replicated. The data are sound. The manuscript adheres to standards for reporting. The discussion and conclusions are thoughtful and balanced. The title and abstract are simple and clear. The writing is quite good.

I am generally a fussy reviewer, but this was an exceptionally clear and well done paper. My only suggestions are stylistic, and I do not feel strongly about them. I think that better use could be made of the Tables/Figures. These are suggestions only.

1. Table 2 could be a summary of the most important characteristics of the 170 studies: e.g., time period (say in 5 year time intervals), region or continent where the study was done, number of patients in the analysis, type of adherence measure used, enrollment criteria, % women, % that looked a predictors vs. correlates, and so on. Much of this info is in the Extra Table 1 and is only partially summarized in para 1 of the Results.

2. There are 7 forest plots presented. That seems like too many to me, and it only includes the ones that were strongly associated with adherence. What if the actual forest plots were in additional materials (available on line), and the summary measures (the diamonds at the bottom of the forest charts) were put in a kind of forest plot of the summary measures? There could be 3 of these, or 1 with 3 parts: strongly associated, weakly but significantly associated, and unassociated? I don’t know that readers are so much interested in the formal forest plots as they are in the summary measures; so why not present these in graphical form? This allows the weakly associated and unassociated measures
to be presented also.

3. Is there a way to graphically (or in a Table) present the data from the meta-regressions? I think these data are quite interesting and could be presented in ways that bring the main points home. I leave it up to the authors to think about this.

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have no competing interests.