Reviewer’s report

Title: Cost effectiveness of a computer-delivered intervention to improve HIV medication adherence

Version: 1 Date: 31 October 2012

Reviewer: Timothy Page

Reviewer’s report:

Thank you for the opportunity to review this interesting paper. The purpose of the paper is to estimate the cost effectiveness of a computer based intervention to improve medication adherence among people living with HIV/AIDS. The authors find evidence to suggest computer based interventions, delivered in a clinical setting or via the internet, have the potential to be more cost effective than existing in-person medication adherence interventions. The paper makes a unique contribution to the literature, and these types of economic analyses are much needed in the field of technology based HIV prevention. I have comments on how the paper can be strengthened.

Comments:

Major revisions

1. The authors should further explain and attempt to place a monetary value on the costs to participants of using an office based versus internet based intervention. Using the internet has several advantages over delivering a computer based intervention in a physician’s office, such as reduced travel time and greater convenience. The cost difference between the internet and office based delivery may therefore be overstated by not accounting for the participant costs. This is especially true in rural areas, where a computer kiosk in a physician’s office may be located a great distance away.

2. The authors cite a 7 percent improvement in adherence resulting from the intervention. However, the citation provided is not a published manuscript, so relying on that estimate as the basis of a cost-effectiveness analysis might be premature. The follow up period of the study was 1 month, so it is not clear whether this effect remains for a longer period following the intervention. The authors undertake sensitivity analyses of the intervention’s effectiveness, but this limitation should be stated explicitly.

Minor revisions

1. The abbreviation “ARV” is used in the body of the paper before being introduced.

2. The first 2 sentences of the “Results” section were already stated in the “Methods” section and can be deleted.
3. The results presented in Tables 5 & 6 warrant further description in the “Results” section. Authors should, at a minimum, provide the range of costs per QALY for each delivery approach.

4. The tables need additional notes. The reader should be able to understand the table without having to refer to the text.

Discretionary revisions

1. A table or figure summarizing the advantages/disadvantages of clinician, computer, and internet delivered interventions would help to clarify arguments presented on pages 1-2.

2. A table summarizing the parameter values assumed for the baseline analysis and sensitivity analyses would be useful to inform the reader of the necessary components of a cost-effectiveness analysis (most readers are likely not economists) and the values assumed. The source of the values (parent study or published literature) should also be stated in the table.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

No