Reviewer's report

Title: Highly Active Antiretroviral Treatment and Health Related Quality of Life in South African adults with Human Immunodeficiency Virus infection: A cross-sectional analytical study.

Version: Date: 20 April 2007

Reviewer: William Holzemer

Reviewer's report:

General

Title: Highly active antiretroviral treatment and health related quality of life in South African adults with human immunodeficiency virus infection: a cross sectional analytical study.

The manuscript presents an interesting description of the differences between a stratified sample of HIV positive persons in South Africa taking HAART medications or on a waiting list to take HAART medications, having been qualified as needing HAART. The literature presents an adequate view of the issues related to quality of life but many of the references are extremely old. The literature review needs to be updated with current work on quality of life in the ARV area.

The methodology is well presented and its limitations noted. The manuscript would be significantly enhanced with a better description of the instruments used to measure quality of life. It appears that three measures were used: demographic survey, EQ-D5, and a VAS scale. There is really no description of the demographic survey or the VAS scale. It is not clear if the VAS scale is 10 cm and if it is a one-item scale asking respondents to rate their overall health related quality of life. It is unclear why the manuscript handles all the QoL data from the EQ-5D as categorical data (Table 2) and then appears to have created a total score for the regression analysis noted in Table 3. No total scores are reported for either quality of life measure. Data on instrument validity and reliability would enhance the manuscript. The EQ-5D quality of life measure has some conceptual problems, for example linking depression and anxiety together when in fact these are separate constructs. More information about the measure would help the reader understand the instrument and its relevance to measuring quality of life for people on HAART medications.

Overall, while Table 1 and 2 demonstrate a few areas of statistical significance between the two groups, overall they seem much more alike and those on treatment, as noted in the manuscript, have only been on treatment for a short period of time. Perhaps the manuscript should wait and report differences in quality of life after a longer period of time or build a stronger case as to why this is important at this early stage. Both groups also appear relatively healthy with few quality of life problems, but this is not really addressed in the manuscript.

Could the findings in Table 1 and 2 be due as much to Type I error as to meaningful differences between the groups? Table 2 reports QoL differences between the two groups but there is no presentation of other variables such as gender that might be related to QoL? Perhaps Table 3 and 4 entered all the demographic variables and these are the only significant results? This is not clear in the manuscript. Table 2 might report the total scores of the two groups on both measures of quality of life.

Each table would be strengthened if they presented sufficient information to stand alone without the text. One ought to be able to interpret the tables without direct reference to the text and this is very difficult with these tables. For example, the dependent variable in Tables 3 and 4 is not really well described or noted.

In summary, I believe this is an important topic and the manuscript would be significantly enhanced if:
1) literature review is updated
2) full description of the instruments is provided
3) descriptive data on total quality of life measures added
4) tables structured with sufficient information so that they can be interpreted without the text
Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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

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 of importance 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.