Dear Dr da-Silva

Thank you for the opportunity to revise and resubmit this paper in the light of the reviewers’ comments. In this letter we quote the reviewer’s suggestions and, in bullet points, say how we have modified the paper accordingly.

**Reviewer #1**

The 4th sentence of the introduction section is not clear.

- This sentence has been modified to make the statement clearer.

It seems important to present cronbach alpha for each domains of the EuroQol.

- We have calculated and report Cronbach’s alpha for the EQI index, which is based on five domains. Each domain is a single variable, so it is not possible to calculate Cronbach’s alpha for each one.

**Reviewer #2**

**Major Compulsory Revisions**

1. The largest potential for bias would seem to come from the fact that some of the HAART users were previous users and were preferentially give HAART at the start of the program to avoid treatment interruptions. These people had a longer period of time from which to potentially benefit from HAART. It would seem that secondary analyses excluding these participants would be warranted to ensure that they do not unduly influence the results.

- We have carried out these secondary analyses. We report that the findings were essentially the same as in the primary analyses, but have not added these details to the paper. Please note that, as shown in Table 2, only 7% of the sample had previously received HAART.

2. In table 1, HAART status is given by demographics. If a second table was added giving total EQ-5D scores and VAS scores by demographics, it would allow readers to have some idea of factors that might be potential confounders. The authors appear to have appropriately checked for confounding and kept/deleted covariates, but the above table would support what they did.

- We have expanded Table 2 to include comparisons between men and women and between employed and unemployed patients. Further cross tabulation of outcomes for all possible confounders would produce tables that were too large for publication.

3. In table 2 (or a similar table), VAS scores could be provided by HAART status. As it is, VAS score results are only presented in a multivariate model.

- We have also added Table 3 to compared EQ index and VAS between treated and untreated patients, men and women and employed and unemployed patients.

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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)**

1. Spell out PHC (acronym used on p. 5)
   - Done

2. ART used instead of HAART on p. 11
   - Corrected
3. Change “not needing” a physical caregiver to “who did not have” on p. 12, as it confuses need for a caregiver with simply whether one is present
   • Done

4. Explain what is meant by “we compared patients rather than described changes within patients” on p. 12 and why this might account for the difference from the Khayelitsha study
   • We have reworded this sentence to say “These two studies’ results are however not directly comparable because in our study the duration of treatment was shorter, our design was cross-sectional rather than longitudinal, and we adjusted for gender and employment status whereas that study did not.”

Reviewer #3:

The literature review needs to be updated with current work on quality of life in the ARV area.
   • We have updated the literature review in a new paragraph of the Background. We cite two review articles that assess the validity and reliability of our outcome measures, and a key original study on quality of life measures in people with HIV.

The manuscript would be significantly enhanced with a better description of the instruments used to measure quality of life.
   • The EQ5D instrument and calculation of the EQ index are fully described in the second paragraph of the Background.

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.
   • In Methods we have listed the other variables included in the questionnaire, and added a more detailed description of the VAS scale.

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.
   • As stated in the second paragraph of the Background, these EQ5D measures can be reported separately for each domain, or combined into a single index. We have added Table 3 showing the EQ index and VAS results, with comparisons between subgroups of patients.

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.
   • As stated above, we have reviewed evidence on validity and reliability of EQ5D in a new paragraph of the Background. In discussing the limitations of this study we now also point out that its measurement of anxiety and depression with the same question may be problematic.

Both groups also appear relatively health with few quality of life problems, but this is not really addressed in the manuscript.
   • We have added the third paragraph to Results, writing that “The EQ5D results showed that patients awaiting HAART commonly reported problems, with 57% reporting that pain or discomfort caused problems, 42% reporting that depression or anxiety caused problems, and 29% reporting problems with
mobility, and with an EQ index of 0.69”. We do not think this show that patients were relatively health with few quality of life problems.

Could the findings in Table 1 and 2 be due as much to Type I error as to meaningful differences between the groups?

- We have added a sentence to the Discussion saying that: “The quality of life measures were significantly different for patients receiving or waiting for HAART, for four of the five EQ5D domains, for the EQ index and for the VAS scale, with and without adjustment for confounders, so these differences are unlikely to be due to type 1 errors.”

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.

- As stated above, we have added Table 3 with EQ index and VAS scale results and expanded Tables 2 and 3 to show comparisons by sex and employment.

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 the footnotes to these tables (now 4 and 5), we have listed all explanatory variables initially entered into each regression models. As noted above, we have added Table 3 giving more information on the dependent variables for the regression models. The methods of calculating the index and VAS score are described in several paragraphs of the text, and so we do not repeat them in the tables.

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

- As detailed above, we have made all these changes.

Finally, in Acknowledgements we thank the reviewers for their helpful suggestions.

Yours sincerely

G Louwagie