Reviewer’s report

Title: Antiretroviral treatment adherence among HIV patients in KwaZulu-Natal, South Africa

Version: 1 Date: 13 November 2009

Reviewer: Christian Laurent

Reviewer’s report:

This study explores the relationship between multidimensional factors and adherence to antiretroviral therapy in a cohort of patients followed in three public hospitals in South Africa. The topic of adherence to antiretroviral therapy remains crucial in terms of public health. However, some issues listed below should be taken into account.

Major revisions

1) As the authors acknowledge in their introduction, a lot of factors associated with adherence (especially in the short-term) have been described by previous studies. Therefore, they should point out the contribution of their study.

2) The Introduction should be shortened. In particular, the factors associated with adherence should be synthesized.

3) In the third sentence of the Introduction, the authors write: ‘According to a recent study, the minimum level of adherence required for antiretrovirals (ARVs) to work effectively is 95% [6]’. The beginning of the sentence ‘according to a recent study’ should be removed since it suggests a new finding when this necessary level of adherence is known for several years now.

4) ‘…African patients begin to experience the more long-term side effects of ARVs and more complex regimens become available, adherence rates may decline’ (last sentence of the first paragraph, Introduction). This sentence is not related to the present short-term (6 months) study in which ‘old’ regimens are used, and should be removed.

5) There are some redundancies. For example: ‘In South Africa, the rollout of antiretroviral therapy began in 2004 and with approximately half a million people enrolled, it now has one of the largest treatment programmes in the world, the number of people enrolled is now the highest in the world’.

6) This is a cross-sectional study (not a prospective study) (Methods, first sentence).

7) Although ‘the setting, sampling procedure and recruitment have been described elsewhere’, they need to be reported in this paper (even briefly) (page 5).
8) The second paragraph of the Method ‘Of 735 patients (29.8% male and 70.2% female)...’ should be moved to the Results section.

9) ‘HIV medications for 411 (79.8%) patients included Lamivudine (3TC), Stavudine (d4T) + Efavirenz (Stocrin) and for 107 (20.8%) Lamivudine (3TC), Stavudine (d4T) + Nevirapine’ (last sentence, page 5): 519 patients were included in the study, so which regimen received the last patient? Also, the percentages seem incorrect.

10) The Measures section should also be shortened.

11) Who interviewed the patients? Were they trained for this? If yes, how were they trained?

12) Were fixed-dose combinations (FDC) of ARV used? This should be specified because the use of FDC has an impact on adherence estimation especially when this latter is based on the past few days.

13) The authors should specify in the Methods section that analyses were performed using logistic regressions. Also, it would be better to include in the multivariate models all variables associated in univariate analysis with a p-value <0.1.

14) Please add p-value for multivariate analysis of dose, schedule and food adherence in table 4.

15) The variable ‘education level’ is categorical and should be analysed as such (table 4).

16) ‘The VAS indicator found greater adherence... amongst the married and cohabiting groups compared to those single, separated, divorced or widowed’ (last but one sentence, page 11). According to table 4, the adherence was lower in married and cohabiting patients.

17) Another limitation of the study should be acknowledged. The patients who died or were lost to follow-up in the first 6 months were not included in the present study (selection bias).

Minor revisions

1) Please, replace ‘Stavudine’ by ‘Stavudine’ (last sentence, page 5).

2) The references to tables should be indicated at the end of the first related sentence (rather than at the end of the paragraph).

3) Results of ART adherence are shown in table 3 (not table 4 as mentioned in the text, page 11).

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

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