Reviewer's report

**Title:** Early microstructural white matter changes in patients with HIV: a diffusion tensor imaging study

**Version:** 1  **Date:** 17 November 2011

**Reviewer:** Nicola Filippini

**Reviewer's report:**

This is the first review of the article "Early microstructural white matter changes in patients with HIV: a diffusion tensor imaging study" by Stubbe-Drager et al., submitted for publication to BMC Neurology.

The study is interesting and the methodology used sound and appropriate. I have few minor comments. Please, see below.

1) Results reported here using ROIs are not corrected for multiple comparisons. Authors should change the significant threshold according to the number of ROIs used in their analysis. Because 5 ROIs were used only results greater than 0.01 should be considered statistically significant.

2) I could not find Table 1 reporting socio-demographic characteristics of the population anywhere. Could authors make sure that this table is included in the main manuscript please?

3) Could authors also report educational level for their subjects, please? Moreover, could they report p-values for sex distribution in the HIV patient and control groups please?

4) Could authors explain the rationale behind ROIs selection, please?

5) Could authors show scatterplots of the correlation between WM measures and laboratory test parameters, please? Moreover, could they specify whether a 1-tail or a 2-tails Persons test was used?

6) Typo at page 9 of the manuscript, “4.1 WM abnormalities in patients with HIV”. Authors should change “man” with “mean”.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

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