Reviewer's report

Title: Effects of ethnicity and CD4 count on glucose metabolism among HIV patients on highly-active antiretroviral therapy (HAART)

Version: 1 Date: 4 December 2012

Reviewer: Federica Carli

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MAJOR COMPULSORY REVISIONS

Even if your study could provide some interesting data, we think that the statistical analysis should be completely revised as, in our opinion, some mistakes have been made.

First of all, table 1 is excessively long and difficult to be read.

The absence of the post-hoc control after the first inter-group comparison limits the possibility of deriving those conclusions provided by authors. Moreover, as you performed ANOVA you considered the continuous variables as "normally-distributed", but the majority of variables you presented appeared to be non-normally distributed. In this setting, you needed to use non-parametric test (i.e. Wilcoxon or Kruskal-Wallis tests, using some probability correction [as Bonferroni]) or to transform variables.

Another major statistical concern is about CD4 stratification: it has not been specified whether in the ethnicity category CD4 cell count are equally distributed or not.

Table 2 provides many concerns. According to the table, the variable "Ethnic category" was analyzed as an ordinal variable, not as a categorical one. This could affect the whole analysis and consequently your conclusions.

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.