Reviewer’s report

Title: Improved Virologic Outcomes over Time for HIV-infected Patients on Antiretroviral Therapy in a Cohort from Rio de Janeiro, 1997-2011

Version: 2 Date: 6 April 2014

Reviewer: Mark Oette

Reviewer’s report:

The manuscript “Improved virologic outcomes over time for HIV-infected patients on antiretroviral therapy in a cohort from Rio de Janeiro, 1997-2011” by David A Martin et al. is interesting and well written. There are some aspects that have to be considered before it is suitable for publication:

Major

Why was the laboratory value once-a-year close to midyear chosen? How about missing values or measures to exclude viral blips? Efforts to include sufficient data have to be described.

To better understand the influence of ART interruptions, an analysis of time trends of proportions of patients with ART interruptions over the years is necessary.

A more thorough discussion on the finding that PI- vs. NNRTI use is negatively associated with outcome is necessary. In general, PI-based regimens are more potent and thus this finding has to be explained.

Minor

Abstract: A p-value for the median CD4 cell count-increase is missing.

Results, p. 8, line 8-9: A p-value for the median CD4 cell count-increase is missing.

Results, p. 8: The abbreviation GEE is not explained.

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

Quality of written English: Acceptable

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