Reviewer's report

Title: Five-year trends in treatment changes in an adult cohort of HIV/AIDS patients in Ghana: A retrospective cohort study

Version: 0 Date: 31 May 2017

Reviewer: Fred Stephen Sarfo

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Ankrah et al. reports on temporal trends in HAART treatment changes in a cohort of nearly 4,000 Ghanaian adults between 2008 and 2012. Their major finding is that stavudine based ART were the most frequently changed. This is one of the large scale single center studies to investigate this research question and provides information which would be useful in other Low- and Middle Income Countries. The following comments are meant to strengthen the overall readability and scientific rigor of the manuscript.

1. Author should consider a different phraseology for "HAART initiators"? They could consider "subjects initiated on HAART".

2. Table 1: AZT/ETC/NVP: Please consider changing ETC to 3TC

3. Table 1: Please provide p-values for comparison of WHO stage, Age groups, gender, and initial treatment for the years under consideration

4. It is not clear from the manuscript whether adjusted Hazards ratios were calculated to identify independent predictors of treatment change. Authors should please provide adjusted analysis

5. Loss to follow up rate is important as are reasons for therapy changes but are not available

6. It is not clear to this reviewer why authors didn't just break down ART into an NRTI backbone of D4T+3TC, TDF+3TC/FTC, AZT+3TC and then the NNRTI into NVP and EFV to conduct their analysis. Are all their HAART combinations provided as fixed dose combinations? If not so, they should consider re-doing the analysis to show rates of change of D4T-, AZT-, and TDF- changes as well as EFV-, NVP-based changes. This
may highlight their central message of declining D4T use in their cohort and provide clinically relevant information for clinicians and policy makers.

7. Consider improving the quality of figures

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable
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