Review of: "HIV/HBV Coinfections Among People Living With HIV/AIDS in Yenagoa, Bayelsa, Nigeria"

Ibrahim Jahun

Potential competing interests: No potential competing interests to declare.

Title: Appropriate

Abstract: requires adjustment based on comments made in other sections of the paper

Introduction:

General comments:

- this section will benefit from rearrangement of sentences to ensure logical flow of information
- the section concentrated only on prevalence without discussing socioeconomic factors, potential effect of the coinfection, CD4 and VL in the coinfection which were reported in your result.

Some specific comments:

- 1st sentence – will be good to qualify the "coinfection" by being explicit. Something like: HIV coinfection with HBV serve as a major challenge…….
- 2nd sentence – consider removing it or adjusting it because HIV has been in epidemic stage for the last 3 decades.
- Consider rearranging these sentences to ensure logical flow of information and to prevent misinterpretation:*HBV accounts for approximately 96.0%.................. the next sentence should be* "75.0% of them reside in Asia, and 25.0% of them pass away from ………. the next sentence should be *"Around 70 million of those with chronic HBV infections are Africans……..*
- The global prevalence of HBV/HIV coinfection varies from 1.13% to 59.0%.*Comment – will be good to indicate where the prevalence is 1.3 and where the prevalence is 59.0 since the range is very wide.*
- "Reports from Africa have revealed that the prevalence of HBV/HIV coinfection is between 10.0% and 20.0%" and "The global prevalence rate of HIV/HBV and HIV/ HCV coinfections in sub-Saharan African countries was 15.0% and 7.0%, respectively". *Comment: try to rearrange these sentences one to come immediately after the other. Additionally, try to limit your points to HIV/HBV coinfection only. Introducing HCV will cause confusion. Also consider removing the word "global" in the sentence "The global prevalence rate of HIV/HBV and HIV/ HCV coinfections in sub-Saharan African countries was 15.0% and 7.0%, respectively."*

Method:

Study location – this section can be strengthened by addition epidemiology of HIV in this location including prevalence,

PLHIV estimates, socioeconomic and sociodemographic characteristics of the population in Bayelsa/Yenagoa LGA among others. The history of when the state was created among others may not be necessary. Also will be good to add number of PLHIV receiving care in the study facility.

Study population – 104 participants is confusing and contradicting. You highlighted that "All PLWHA positively confirmed patients were eligible for the study. HIV-infected patients with missing data, such as age and duplicate records, were excluded from the study. Comment: the 104, have they satisfied these conditions? If yes, the rearrange your sentence to make it explicit. You also mentioned those who agreed to provide stool, why stool?

Data analysis – since sample size was not scientifically determined for this study, it may be inappropriate to use "prevalence". Consider using just "coinfection" or "rate of coinfection".

Results:

- Consider providing cascade of your population such as total individual sampled, number who agreed to participate, number eligible based on eligibility criteria, number with missing data. The net will justify your final 104 eligible clients.
- Age grouping is not inline with HIV/AIDS approved epidemiologic age categorization, for example 8-20 have different epidemiologic HIV characteristics and risks, 21 – 40 also have merged young adults, females of active reproductive age e.t.c. please check for example NAIIS 2018 to get HIV age categorization. This will guide your arguments during discussion.
- There is no VL results in table 1, but you presented CD4.
- You indicated coinfection is higher among those >41yrs, followed by 21 – 40 and you stated that the findings are not statically significant. However your next sentence stated that prevalence of HBSAg was found to increase with age. Please reconcile and avoid using prevalence, use seropositivy instead.
- Subheadings and charts – consider narrating your results without subsections and allow the results to flow logically. Reduce the number of charts by not having charts where results are predominantly zeros. Alternatively, consider adding Table 2 and present these results and remove all the charts.

Discussions:

General comments: this section concentrate more on mare comparison of findings with other studies. This section should be enriched by providing potential contexts on why for example male are having higher coinfection rate? Or why particular age groups are having lower or higher rates e.t.c. additionally, implication of all findings should be discussed keeping in mind the implication of the epidemics and potential risks and care/treatment outcomes.

Some specific comments are:

- This result suggests that HIV coinfection with HBV among the study participants was low. Comment: this statement is subjective, what is the definition of high and low in this context? However, if you adjust the positioning of this sentence after other studies in SSA or Nigeria, then this can be related to these studies if the prevalence were higher. Remember avoiding using "prevalence" because your study wasn't designed to measure that.

- "For sex, females had a higher HIV/HBV coinfection rate of 3.0% compared to 0.0% of males". This contradicts figure 3 whereby Male had 3 and Female 0. Please reconcile.

Conclusion:

General comment: the conclusion should be rewritten concisely and not to just repeat results by summarizing implication of the study findings.

Some specific comments below:

- "The viral load and CD4 levels were indicators of HIV/HBV coinfections". Comment – this statement may not be true. Please consider removing it.

Acknowledgements:

The authors should consider adding this caveat "the opinions provided in this study are personal opinions of the authors and do not represent the position of the FMC (study center). Alternatively add, "disclosure" section to provide this caveat.