

Review of: "[Review] Early Real-World Evidence on the Relative SARS-CoV-2 Vaccine Effectiveness of Bivalent COVID-19 Booster Doses: a Narrative Review"

Joseph K. Kamara¹

¹ World Vision International

Potential competing interests: No potential competing interests to declare.

Dear Editor and Authors,

Thank you for the opportunity to review the interesting manuscript whose subject matter is relevant and up to date. I commend the author (s) for tackling such an interesting subject matter. Nonetheless, I recommend some changes to the manuscript to improve the intellectual content. My specific comments are reflected below:

Key Messages

1. Please note that the second key message i.e. *'To determine the best timing for receiving bivalent vaccine booster doses and to develop vaccination plans for the future, VE against outcomes like COVID-19-associated severe respiratory illness or death should be evaluated'*. Is unclear. It reads like a double-barrelled objective. Please consider rephrasing it as a key message. i.e., what exactly do you want your readers to know?

Key implications:

1. Please reframe your second bullet point (i.e. *Policy makers should discuss long-term planning Covid-19 immunization campaigns including VE against COVID-19-associated severe respiratory illness or death, in order to reduce the potential impact on health systems*) for clarity. As it is, you are not offering a solution when you state "Policy makers should discuss..." They probably have had many discussions about the subject matter, please propose a way forward beyond discussion.

Introduction:

1. Please ensure all abbreviations are written in full the first time you introduce them followed by the abbreviation in parenthesis e.g. The Food and Drug Authority (FDA). Thereafter you may use the abbreviation. This makes reading easy. Abbreviations could have different meanings in other contexts
2. Please proof read the manuscript and address the grammatical typos and errors, e.g. *a booster dose before June 2023* is repeated in the same sentence which I guess is a simple mistake
3. The title suggests the paper is a narrative review, however in the abstract and end of intro, the author suggests that *....studies were systematically screened, identified, and synthesised*. It is unclear why the author decided on the

systematic screening usually done for systematic reviews. Adding a sentence to rationalise why the systematic screening was undertaken would be helpful.

Methods

1. Overall, the methods section suggests the study is a systematic review contrary to the title which states that it is a narrative review. I recommend the author clarifies what exact the study is. Why apply systematic review methods if it is a narrative review?
2. Please clarify who were the study participants
3. The author suggests that there were no language limitations imposed on the search, however, all the included studies were in English. The author did not state how many were in other languages and how they were translated! Please clarify, how many of the documents found and included were in other languages than English and how the translation was conducted.
4. Similarly, rationalising why the date limitation was not applied in the search of documents/studies.
5. The Prisma flow chart remains unclear requiring further work. For example, it is unclear why the 707 studies were removed after screening; It is unclear why 43 documents were included and 'sought for retrieval'. Does 'sought for retrieval' imply the author knew about these documents prior to the study and was specifically looking for them? what about the two studies that were not retrieved, why were they not retrieved? how about the 28 studies excluded because of a wrong topic and one that had a wrong study design? As you can see the entire flow chart requires revision to clarify what was included/excluded and the reasons. In addition, I recommend re-writing the inclusion/exclusion criteria to ensure it is clear and matches the flow chart.
6. It is unclear how author biasness was dealt with in this study. I recommend the author explains how biasness was addressed in the data search, extraction and in determining the studies to be included.
7. It is unclear if the author undertook any quality assessment of the included studies- were there any parameters to guide the quality of studies?
8. I recommend the author re-writes the strategy for data synthesis indicating step by step actions undertaken. The summary provided is incomplete and does not allow to establish the relationship between the section and the results. For example, how did you analyse both quant and qual data? In addition, the summary provided seems to have been lifted from the protocol without adjustments i.e. *If available, sequencing-specific vaccine effectiveness data will be identified, reported and evaluated. Meta-analysis was not planned, due to expected high heterogeneity.*

Results, discussion and conclusion

I'm unable to determine how robust the results, discussion and conclusion are without clarity of the methods used to deduce them. I recommend the author revises the methods section to make it clear and demonstrate the various steps undertaken to allow readers to judge whether the methods used produced and relate with the findings, discussions and conclusion.

The manuscript presentation suggests it is a systematic review but the title suggests otherwise. It is possible that the author did not want to meet the recommended PRISMA guidelines which could be why some sections are missing from the

manuscript and also why the manuscript is titled a 'narrative review' when everything else suggest otherwise.

I recommend consideration of the above comments to strengthen the manuscript and its interesting subject matter.

I wish the author (s) the best as they work to improve the intellectual content of the manuscript.

Best Regards,