Dear Editors,

thank you for a helpful and favourable peer review report. We amended our manuscript to improve its comprehensibility, style and content. As suggested by the reviewers, we also had a native speaker review the English. The changes in the current version of the text compared to the submitted manuscript are highlighted in red.

Here are detailed responses to individual reviewer comments:

Both Table 1 and Table 3 are confusing.

Every table should be understandable on its own.

Tables 2, 4 and 5 should be merged into a single table.

All tables have been changed according to the suggestions, Tables 2,4 and 5 have been joined. A complete legend has been added where it was missing.

The first paragraph of the Results section is also confusing

The text has been corrected, the whole paper has been proofread by a professional native speaker language corrector.

The Supplementary Material contains tables with a large amount of information, particularly regarding the effect of age on vaccine efficacy. The paper would be improved if some of this information was included in the body of the paper rather than in the Supplements.

A new paragraph has been added to the Methods section. The reason why we did not include it in the Results section is that the information is well known (exponentially growing risk of severe outcomes) or cannot be interpreted unambiguously (the risk of infection)

The Legend for Table 1 also contains data in the 2 sentences … This information should be moved to the "Results" section of the paper.

The information on the results of the "the inverse immunization order" now stands separately in the main text, as recommended.

The figures have headings but no separate Figure Legends, etc.

Figure 1 has been corrected according to the above suggestions.

*Similarly, in Figure 2 there is no definition of the (very short) lines above and below the dots… Figure Legend should include a definition of these lines (*as well as the terms along

Figure 2 corrected and CI added to the legend.

Reference 13 is not helpful.

Corrected (this was caused by Google Scholar citing the article as MISC rather than ARTICLE).

In the definition of the term "VE" (lines 129 and mathematically, 132-3) uses the word

"effectiveness".... "efficacy" seems somewhat preferable.

In the manuscript we estimate the effect of vaccines in a real world setting (namely an incompletely vaccinated population) as opposed to a controlled clinical trial. In agreement with the definitions of the terms "efficacy" and "effectiveness" used by the United States Center for Disease Control and the World Health Organization (please see https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/index.html, https://www.who.int/news-room/feature-stories/detail/vaccine-efficacy-effectiveness-and-protection) we believe "effectiveness" is the more applicable term for this situation.

Sincerely
Martin Smid, corresponding author.