

Dear Reviewer,

Thank you for the suggestions. The revised version of the manuscript, incorporating all the changes made in response to the reviewers' suggestions, is enclosed. The last review step is highlighted in sky blue.

Below we provide a response to the comment raised

"The authors have responded conscientiously to all three mandatory revisions specified in the second round, and the manuscript is substantially improved as a result. The correction of confidence interval methods, the terminological revision throughout the manuscript, and the important clarification regarding hospitalization data completeness represent meaningful advances in methodological transparency. One residual textual inconsistency, a direct consequence of the R4 clarification, remains present in the body of the manuscript and must be corrected before acceptance. Two minor points are noted below for completeness.

1. The revision has been implemented correct period incidence consistently throughout the abstract, all main tables, supplementary tables, and the body text. Table 1 now correctly presents a "Period incidence rate 2019–2024" column alongside the mean annual incidence rate, and the abstract has been updated accordingly. This mandatory revision is satisfactorily resolved.

Thank you

2. The application of exact Poisson methods for strata with five or fewer events has eliminated all inadmissible negative lower bounds across Tables 1, 2, and Supplementary Table 1. The methodological clarification has been appropriately incorporated into the Materials and Methods section. This mandatory revision is satisfactorily resolved.

Thank you

3. The authors' clarification that PREMAL contains no missing values for hospitalization status and that the original reference to "NA" pertained to disease severity variables introduced only in 2024 resolves the substantive concern. The rephrased sentence in the Discussion (lines 255–258) correctly redirects the missing-data caveat to clinical severity rather than hospitalization. This clarification is ok, and the mandatory revision is satisfactorily resolved in its substantive dimension.

Thank you

Residual Inconsistency Requiring Correction

One textual error introduced by the R4 correction has not been propagated to all relevant locations in the manuscript. The Discussion section (lines 327–330) retains the following sentence in its recommendations paragraph: *"The incomplete information on hospitalization*

status ('NA') limited the assessment of disease severity and hospital burden." This sentence directly contradicts the authors' own clarification, confirmed in the cover letter, that no missing values exist for the hospitalization variable. The reference to hospitalization status and the parenthetical "(NA)" must be removed or revised in this paragraph to align with both the corrected sentence at lines 255–258 and the authors' stated position. Failure to correct this passage will create an internal inconsistency in the published article that could mislead readers.

Thank you. We appreciate your constructive feedback. Following your suggestion, we have revised the Discussion section and corrected the residual inconsistency previously present at lines 327–330. The text has now been updated to ensure full consistency.

Minor Points

1. The abbreviation list continues to define "NA: Not applicable," a designation that the authors have clarified does not apply to hospitalization data in this dataset. Given that the only substantive use of the NA notation in the original manuscript has now been reattributed to a different variable (disease severity), this abbreviation entry should either be updated to reflect its corrected referent or removed if it no longer serves a necessary function in the revised text.

Removed, Thank you

2. The period incidence rate (18.19/100,000 over six years) remains reported as the headline figure in the abstract, despite the authors now also presenting the mean annual incidence rate, which is the more interpretable summary measure given the extreme between-year heterogeneity of the data. Consideration should be given to foregrounding the mean annual rate in the abstract and relegating the period rate to a secondary position, as the latter is dominated by a single calendar year and conveys limited epidemiological information in isolation. This point is offered as a suggestion rather than a requirement.

Mean annual incidence rate inserted in the abstract, Thank you

My Final Recommendation

Minor revision. Acceptance is contingent solely on correction of the residual inconsistency at lines 327–330 of the Discussion. No further methodological review is required following this correction.

Thank you. We appreciate your constructive feedback. Following your suggestion, we have revised the Discussion section and corrected the residual inconsistency previously present at lines 327–330. The text has now been updated to ensure full consistency.