OBSTETRICS & GYNECOLOGY

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- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)*

**The corresponding author has opted to make this information publicly available.*

Personal or nonessential information may be redacted at the editor's discretion.

Questions about these materials may be directed to the *Obstetrics & Gynecology* editorial office: obgyn@greenjournal.org.

Date: Dec 14, 2021
To: "Anthony D Harris" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-21-2232

RE: Manuscript Number ONG-21-2232

Pregnancy and the Risk of In-Hospital COVID-19 Mortality

Dear Dr. Harris:

Your manuscript has been reviewed by the Editorial Board and by special expert referees. Although it is judged not acceptable for publication in Obstetrics & Gynecology in its present form, we would be willing to give further consideration to a revised version.

If you wish to consider revising your manuscript, you will first need to study carefully the enclosed reports submitted by the referees and editors. Each point raised requires a response, by either revising your manuscript or making a clear and convincing argument as to why no revision is needed. To facilitate our review, we prefer that the cover letter include the comments made by the reviewers and the editor followed by your response. The revised manuscript should indicate the position of all changes made. We suggest that you use the "track changes" feature in your word processing software to do so (rather than strikethrough or underline formatting).

Please be sure to address the Editor comments (see "EDITOR COMMENTS" below) in your point-by-point response.

Your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jan 04, 2022, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

Reviewer #1:

The authors describe a retrospective cohort of pregnant versus non-pregnant women who were diagnosed with a viral pneumonia (Covid-19) and outcome data. The authors analysis summarizes that the pregnant women are at risk of dying and not greater than the non-pregnant population.
The ICU admission rate was increased, which may have affected long term outcomes.
Do the authors have data on the medications used to treat the pregnant patients in comparison to the nonpregnant patients?
Was the monoclonal antibody given during this time?
Did any of the women participate in investigational therapies during the study period?

Reviewer #2:

Summary
The authors made a retrospective adjusted cohort comparing pregnant and non-pregnant women of reproductive age (between 15 and 45 years old) after Sars-Cov-2 infection. The diagnosis of Covid-19 and pregnancy was obtained after apparently correct aspects registered in the American System of Health.
The primary outcome compared general mortality after Covid-19, mortality after ICU admission, and mortality after mechanical ventilation.

There is a different result of current papers demonstrating pregnancy as a factor of protection of mortality after Covid-19. Their results were adjusted by age, Elixhauser comorbidities score, ethnics, marital status, payer, provider number of beds, discharge season, and provide region in the US and after exclusion of confusion factors, the difference was sustained and appears to be consistent with recent literature.

Comments
These findings were performed with regular age of variance, between 15 and 45 years applied for similar papers. So, this paper agrees with current literature, demonstrating that the mortality is minor (1.1%) during pregnancy against (3.5%) in

non-pregnant women. However, if we consider only pregnant women between 40 and 45 years old this index (obtained only by supplement material, this result is not explicit in the regular material) was 5.2% (or 7/133) and must be related in study results, as a factor of increase of mortality exclusively for this group of patients. With the currently presented data for non-pregnant women, I could not achieve the mortality for this specific group, but this result also should be considered in the secondary outcome. And if the non-pregnant mortality is similar to pregnant mortality for this specific age (40 to 45 years), it is very important that this population be mentioned as the principal age group at risk of death after Covid-19 increasing or at least achieving similar mortality of non-pregnant women (5.2% vs 3.5%) and measures to contain the mortality in this age group must be encouraged.
The authors could propose at discussion how measures could protect more effectively this age, as vaccination over every 5 months, or retard discharge of the hospital for this group, or even precocious hospital admission for this group of pregnant women.

This reviewer considers publication with minor revision.

Reviewer #3:

Objective
To evaluate whether pregnancy is an independent risk factor for in-hospital mortality among patients of reproductive age hospitalized with COVID-19 viral pneumonia.
Retrospective cohort study (April 2020 - May 2021) of 23,574 female inpatients aged 15-45 using the Premier data base
Secondary outcomes were mechanical ventilation and ICU admission during the index encounter. In addition, delivery of the infant during the index encounter was described for pregnant patients.

The secondary outcomes should be stated and defined in the Introduction and Abstract, as they are not even mentioned until late in Materials and Methods

1. The main Covid-19 strain during this time was the original while Delta although present became the dominant strain in August 2021- Please comment! Given the increased infectivity of delta is there a difference with strains? Could there be a difference? If no data this should be part of the discussion
2. Mortality in ventilated patients is not the full story at all. How many of these women had a delivery (an indicated PTB) so although admitted to the ICU pregnant many did not stay pregnant. So the full story of ICU-ventilation should include delivery as you state in your secondary outcomes. The Results section of secondary outcomes should have some description of PTB/ CS/NSVD in women admitted to ICU and those on mechanical ventilation. Currently I only see this in Table 2
3. Do you have data on mortality and gestational age?
4. Table 1and 2: The category of "gestational age at delivery or discharge" makes NO clinical sense. This should be two separate sections. If this section is delivery it tells an incredible story of PTB that occurred more frequently as women became sicker. Gestational age at time of delivery or discharge was 31 weeks, 33 % delivery when hospitalized for Covid, 50% delivery for those in the ICU and 73% delivery on mechanical ventilation- This really needs to be better defined and described
So... why no distinction between discharge and delivery?. It is difficult to isolate maternal outcomes without including fetal outcomes and in your study this would be delivery. Your discussion includes the reported PTSD pregnant women experienced" So the facts you report on maternal mortality are indeed encouraging. Most women want to know about the effects on the baby and an indicated PTB at 31 weeks is an enormous threat and indeed alarming- This is very important data to understand and would be a powerful fact and report

STATISTICS EDITOR COMMENTS:

Table 1: The groups at baseline were quite different, notably in older age and race/ethnicity categories. The difference in age alone makes it difficult to adjust for the baseline differences vs the adverse outcomes.

Table 2: Need to clarify whether the emboldening refers to a stats test across all subsets pregnant vs non-pregnant or pairwise within each category (viral pneumonia, viral pneumonia + ICU, viral pneumonia + mechanical ventilation). The difference in LOS for all viral pneumonia cases does not appear to be statistically different.

Table 3: Theses groups have different risk profiles on multiple dimensions both for Covid-19 pneumonia and its adverse outcomes.

Therefore, based on Tables 1 and 3, the Authors need to corroborate their findings by matching the pregnant cohort as closely as possible, especially in terms of age, race, co-morbidities to the referent group. This will help as much as is possible in a cohort study, to show whether pregnancy is associated with increased, decreased or no change in morbidity and mortality w.r.t. Covid-19.

EDITOR COMMENTS:

We would welcome a revised manuscript if you perform a propensity matching analysis.

EDITORIAL OFFICE COMMENTS:

1. The Editors of Obstetrics & Gynecology have increased transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

A. OPT-IN: Yes, please publish my point-by-point response letter.
B. OPT-OUT: No, please do not publish my point-by-point response letter.

2. When you submit your revised manuscript, please make the following edits to ensure your submission contains the required information that was previously omitted for the initial double-blind peer review:
* Include your title page information in the main manuscript file. The title page should appear as the first page of the document. Add any previously omitted Acknowledgements (ie, meeting presentations, preprint DOIs, assistance from non-byline authors).
* Funding information (ie, grant numbers or industry support statements) should be disclosed on the title page and in the body text. For industry-sponsored studies, the Role of the Funding Source section should be included in the body text of the manuscript.
* Include clinical trial registration numbers, PROSPERO registration numbers, or URLs at the end of the abstract (if applicable).
* Name the IRB or Ethics Committee institution in the Methods section (if applicable).
* Add any information about the specific location of the study (ie, city, state, or country), if necessary for context.

3. Obstetrics & Gynecology uses an "electronic Copyright Transfer Agreement" (eCTA), which must be completed by all authors. When you uploaded your manuscript, each co-author received an email with the subject, "Please verify your authorship for a submission to Obstetrics & Gynecology." Please check with your coauthors to confirm that they received and completed this form, and that the disclosures listed in their eCTA are included on the manuscript's title page.

4. Our journal requires that all evidence-based research submissions be accompanied by a transparency declaration statement from the manuscript's lead author. The statement is as follows: "The lead author* affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained."
*The manuscript's guarantor.

If you are the lead author, please include this statement in your cover letter. If the lead author is a different person, please ask him/her to submit the signed transparency declaration to you. This document may be uploaded with your submission in Editorial Manager.

5. For studies that report on the topic of race or include it as a variable, authors must provide an explanation in the manuscript of who classified individuals' race, ethnicity, or both, the classifications used, and whether the options were defined by the investigator or the participant. In addition, the reasons that race/ethnicity were assessed in the study also should be described (eg, in the Methods section and/or in table footnotes). Race/ethnicity must have been collected in a formal or validated way. If it was not, it should be omitted. Authors must enumerate all missing data regarding race and ethnicity as in some cases, missing data may comprise a high enough proportion that it compromises statistical precision and bias of analyses by race.

Use "Black" and "White" (capitalized) when used to refer to racial categories. The nonspecific category of "Other" is a convenience grouping/label that should be avoided, unless it was a prespecified formal category in a database or research instrument. If you use "Other" in your study, please add detail to the manuscript to describe which patients were included in that category.

6. Responsible reporting of research studies, which includes a complete, transparent, accurate and timely account of what was done and what was found during a research study, is an integral part of good research and publication practice and not an optional extra. Obstetrics & Gynecology supports initiatives aimed at improving the reporting of health research, and we ask authors to follow specific guidelines for reporting randomized controlled trials (ie, CONSORT), observational studies (ie, STROBE), observational studies using ICD-10 data (ie, RECORD), meta-analyses and systematic reviews of randomized controlled trials (ie, PRISMA), harms in systematic reviews (ie, PRISMA for harms), studies of diagnostic accuracy (ie, STARD), meta-analyses and systematic reviews of observational studies (ie, MOOSE), economic evaluations of health interventions (ie, CHEERS), quality improvement in health care studies (ie, SQUIRE 2.0), and studies reporting results of Internet e-surveys (CHERRIES). Include the appropriate checklist for your manuscript type upon submission. Please write or insert the page numbers where each item appears in the margin of the checklist. Further information and links to the checklists are available at http://ong.editorialmanager.com. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, RECORD, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

7. Your study uses ICD-10 data, please make sure you do the following:
a. State which ICD-10-CM/PCS codes or algorithms were used as Supplemental Digital Content.
b. Use both the diagnosis and procedure codes.
c. Verify the selected codes apply for all years of the study.
d. Conduct sensitivity analyses using definitions based on alternative codes.
e. For studies incorporating both ICD-9 and ICD-10-CM/PCS codes, the Discussion section should acknowledge there may be disruptions in observed rates related to the coding transition and that coding errors could contribute to limitations of the study. The limitations section should include the implications of using data not created or collected to answer a specific research question, including possible unmeasured confounding, misclassification bias, missing data, and changing participant eligibility over time.
f. The journal does not require that the title include the name of the database, geographic region or dates, or use of database linkage, but this data should be included in the abstract.
g. Include RECORD items 6.3 and 7.1, which relate to transparency about which codes, validation method, and linkage were used to identify participants and variables collected.

8. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

9. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by

manuscript type: Original Research reports should not exceed 5,500 words Stated word limits include the title page, précis, abstract, text, tables, boxes, and figure legends, but exclude references.

10. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).
* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."

11. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.

In addition, the abstract length should follow journal guidelines. The word limit for Original Research articles is 300 words; Reviews is 300 words; Case Reports is 125 words; Current Commentary articles is 250 words; Executive Summaries, Consensus Statements, and Guidelines are 250 words; Clinical Practice and Quality is 300 words; Procedures and Instruments is 200 words. Please provide a word count.

12. Only standard abbreviations and acronyms are allowed. A selected list is available online at http://edmgr.ovid.com /ong/accounts/abbreviations.pdf. Abbreviations and acronyms cannot be used in the title or précis. Abbreviations and acronyms must be spelled out the first time they are used in the abstract and again in the body of the manuscript.

13. The journal does not use the virgule symbol (/) in sentences with words. Please rephrase your text to avoid using "and/or," or similar constructions throughout the text. You may retain this symbol if you are using it to express data or a measurement.

14. ACOG avoids using "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.

16. In your Abstract, manuscript Results sections, and tables, the preferred citation should be in terms of an effect size, such as odds ratio or relative risk or the mean difference of a variable between two groups, expressed with appropriate confidence intervals. When such syntax is used, the P value has only secondary importance and often can be omitted or noted as footnotes in a Table format. Putting the results in the form of an effect size makes the result of the statistical test more clinically relevant and gives better context than citing P values alone.

If appropriate, please include number needed to treat for benefits (NNTb) or harm (NNTh). When comparing two procedures, please express the outcome of the comparison in U.S. dollar amounts.

Please standardize the presentation of your data throughout the manuscript submission. For P values, do not exceed three decimal places (for example, "P = .001"). For percentages, do not exceed one decimal place (for example, 11.1%").

17. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here: http://edmgr.ovid.com/ong/accounts/table_checklist.pdf.

18. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). Include the digital object identifier (DOI) with any journal article references and an accessed date with website references. Unpublished data, in-press items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the references you are citing are still current and available. Check the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top). If the reference is still available on the site and isn't listed as "Withdrawn," it's still a current document.

If the reference you are citing has been updated and replaced by a newer version, please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

19. Each supplemental file in your manuscript should be named an "Appendix," numbered, and ordered in the way they are first cited in the text. Do not order and number supplemental tables, figures, and text separately. References cited in appendixes should be added to a separate References list in the appendixes file.

20. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An information sheet is available at http://links.lww.com/LWW-ES/A48. The cost for publishing an article as open access can be found at https://wkauthorservices.editage.com/open-access/hybrid.html.

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If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded as a Microsoft Word document. Your revision's cover letter should include the following:

* A confirmation that you have read the Instructions for Authors (http://edmgr.ovid.com/ong/accounts/authors.pdf), and
* A point-by-point response to each of the received comments in this letter. Do not omit your responses to the Editorial Office or Editors' comments.

If you submit a revision, we will assume that it has been developed in consultation with your co-authors and that each

author has given approval to the final form of the revision.

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jan 04, 2022, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,
Dwight J. Rouse, MD
Editor-in-Chief

2020 IMPACT FACTOR: 7.661
2020 IMPACT FACTOR RANKING: 3rd out of 83 ob/gyn journals

RE: Manuscript Number ONG-21-2232

Pregnancy and the Risk of In-Hospital COVID-19 Mortality

January 3, 2022

Dear Dr. Rouse,

Thank you for your thoughtful review of this paper and invitation to submit a revised version. We have revised the analysis to use propensity score-matching and have addressed your comments as described below.

Regarding the Editorial Office question about peer review transparency, we OPT-IN: Yes, please publish my point-by-point response letter.

The lead author affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

Regards,

REVIEWER COMMENTS:

Reviewer #1:

The authors describe a retrospective cohort of pregnant versus non-pregnant women who were diagnosed with a viral pneumonia (Covid-19) and outcome data. The authors analysis summarizes that the pregnant women are at risk of dying and not greater than the non-pregnant population.

The ICU admission rate was increased, which may have affected long term outcomes.
Do the authors have data on the medications used to treat the pregnant patients in comparison to the nonpregnant patients?

Unfortunately, these data are not available for this manuscript.

Was the monoclonal antibody given during this time?

Given the time period of the study cohort, we anticipate that the monoclonal antibodies were not given to the majority of patients in this analysis.

Did any of the women participate in investigational therapies during the study period?

Unfortunately, these data are not available in the Premier Healthcare Database.

Reviewer #2:

Summary
The authors made a retrospective adjusted cohort comparing pregnant and non-pregnant women of reproductive age (between 15 and 45 years old) after Sars-Cov-2 infection. The diagnosis of Covid-19 and pregnancy was obtained after apparently correct aspects registered in the American System of Health.
The primary outcome compared general mortality after Covid-19, mortality after ICU admission, and mortality after mechanical ventilation.

There is a different result of current papers demonstrating pregnancy as a factor of protection of mortality after Covid-19. Their results were adjusted by age, Elixhauser comorbidities score, ethnics, marital status, payer, provider number of beds, discharge season, and provide region in the US and after exclusion of confusion factors, the difference was sustained and appears to be consistent with recent literature.

Comments
These findings were performed with regular age of variance, between 15 and 45 years applied for similar papers. So, this paper agrees with current literature, demonstrating that the mortality is minor (1.1%) during pregnancy against (3.5%) in non-pregnant women. However, if we consider only pregnant women between 40 and 45 years old this index (obtained only by supplement material, this result is not explicit in the regular material) was 5.2% (or 7/133) and must be related in study results, as a factor of increase of mortality exclusively for this group of patients. With the currently presented data for non-pregnant women, I could not achieve the mortality for this specific group, but this result also should be considered in the secondary outcome. And if the non-pregnant mortality is similar to pregnant mortality for this specific age (40 to 45 years), it is very important that this population be mentioned as the principal age group at risk of death after Covid-19 increasing or at least achieving similar mortality of non-pregnant women (5.2% vs 3.5%) and measures to contain the mortality in this age group must be encouraged.

The authors could propose at discussion how measures could protect more effectively this age, as vaccination over every 5 months, or retard discharge of the hospital for this group, or even precocious hospital admission for this group of pregnant women.

We agree that age is a major risk factor for mortality from COVID-19. The risk in pregnant persons aged 40-45 was 1.1% compared to 3.8% in non-pregnant persons of

the same age group. We have addressed this point in the new matched propensity analysis suggested by the editors, in which age is a matching variable.

This reviewer considers publication with minor revision.

Reviewer #3:

Objective
To evaluate whether pregnancy is an independent risk factor for in-hospital mortality among patients of reproductive age hospitalized with COVID-19 viral pneumonia.
Retrospective cohort study (April 2020 - May 2021) of 23,574 female inpatients aged 15-45 using the Premier data base Secondary outcomes were mechanical ventilation and ICU admission during the index encounter. In addition, delivery of the infant during the index encounter was described for pregnant patients.

The secondary outcomes should be stated and defined in the Introduction and Abstract, as they are not even mentioned until late in Materials and Methods

We agree with the reviewer. The secondary outcomes were described on page 4, lines 58-59 of the abstract in the original manuscript, and we have made changes so that the secondary outcomes are now described on page 7, lines 120-121 of the introduction.

1. The main Covid-19 strain during this time was the original while Delta although present became the dominant strain in August 2021- Please comment! Given the increased infectivity of delta is there a difference with strains? Could there be a difference? If no data this should be part of the discussion

We agree that there may be differences with Delta infection. Since our study period extends through May, the analyzed cases occurred prior to the Delta variant becoming predominant. The Delta and Omicron variants are now discussed, however, on page 21, lines 420-421of the tracked revision.

2. Mortality in ventilated patients is not the full story at all. How many of these women had a delivery (an indicated PTB) so although admitted to the ICU pregnant many did not stay pregnant. So the full story of ICU-ventilation should include delivery as you state in your secondary outcomes. The Results section of secondary outcomes should have some description of PTB/ CS/NSVD in women admitted to ICU and those on mechanical ventilation. Currently I only see this in Table 2

We agree that pregnancy outcomes are very important. However, there are many outcomes that are of major interest and these are not within the scope of this manuscript. We are analyzing these data suggested by the reviewer for a separate manuscript that will focus on pregnancy outcomes.

3. Do you have data on mortality and gestational age?

> We agree with the reviewer that this is an important issue and have added these data to page 14, lines 269-270. The gestational age for patients who died and those who survived to discharge was the same.

4. Table 1and 2: The category of "gestational age at delivery or discharge" makes NO clinical sense. This should be two separate sections. If this section is delivery it tells an incredible story of PTB that occurred more frequently as women became sicker. Gestational age at time of delivery or discharge was 31 weeks, 33 % delivery when hospitalized for Covid, 50% delivery for those in the ICU and 73% delivery on mechanical ventilation- This really needs to be better defined and described So... why no distinction between discharge and delivery?. It is difficult to isolate maternal outcomes without including fetal outcomes and in your study this would be delivery. Your discussion includes the reported PTSD pregnant women experienced" So the facts you report on maternal mortality are indeed encouraging. Most women want to know about the effects on the baby and an indicated PTB at 31 weeks is an enormous threat and indeed alarming- This is very important data to understand and would be a powerful fact and report

> We thank the reviewer for this suggestion and agree that it is better to separate gestational age at delivery and at discharge. These are now separated in the tables and text.

STATISTICS EDITOR COMMENTS:

Table 1: The groups at baseline were quite different, notably in older age and race/ethnicity categories. The difference in age alone makes it difficult to adjust for the baseline differences vs the adverse outcomes.

Table 2: Need to clarify whether the emboldening refers to a stats test across all subsets pregnant vs non-pregnant or pairwise within each category (viral pneumonia, viral pneumonia + ICU, viral pneumonia + mechanical ventilation). The difference in LOS for all viral pneumonia cases does not appear to be statistically different.

> These were pairwise comparisons, and this was clarified in the footnote. The p values are small due to large sample sizes. The p value for the difference between pregnant and non-pregnant cases in the viral pneumonia group was 0.048 with a slightly higher LOS in non-pregnant patients.

Table 3: Theses groups have different risk profiles on multiple dimensions both for Covid-19 pneumonia and its adverse outcomes.

Therefore, based on Tables 1 and 3, the Authors need to corroborate their findings by matching the

pregnant cohort as closely as possible, especially in terms of age, race, co-morbidities to the referent group. This will help as much as is possible in a cohort study, to show whether pregnancy is associated with increased, decreased or no change in morbidity and mortality w.r.t. Covid-19.

We agree that the groups are very unequal in several confounders. As requested, we have performed a propensity score-matched analysis which achieved good balance between the pregnant and non-pregnant groups on major confounders (most importantly age and Elixhauser score), and results are similar to the adjusted regression with no changes in the conclusions. As suggested by the statistics editor, we have changed the main analysis of the paper to a propensity score-matched analysis.

EDITOR COMMENTS:

We would welcome a revised manuscript if you perform a propensity matching analysis.

We have performed a propensity score-matched analysis as requested.