

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)*

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Date: Jul 01, 2022
To: "Peter S. Bernstein" [REDACTED]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-22-977

RE: Manuscript Number ONG-22-977

COVID-19-associated perinatal outcomes over time at an academic medical center in New York City

Dear Dr. Bernstein:

Thank you for sending us your work for consideration for publication in Obstetrics & Gynecology. Your manuscript has been reviewed by the Editorial Board and by special expert referees. The Editors would like to invite you to submit a revised version for further consideration.

If you wish to revise your manuscript, please read the following comments submitted by the reviewers and Editors. Each point raised requires a response, by either revising your manuscript or making a clear argument as to why no revision is needed in the cover letter.

To facilitate our review, we prefer that the cover letter you submit with your revised manuscript include each reviewer and Editor comment below, followed by your response. That is, a point-by-point response is required to each of the EDITOR COMMENTS (if applicable), REVIEWER COMMENTS, STATISTICAL EDITOR COMMENTS (if applicable), and EDITORIAL OFFICE COMMENTS below. Your manuscript will be returned to you if a point-by-point response to each of these sections is not included.

The revised manuscript should indicate the position of all changes made. Please use the "track changes" feature in your document (do not use strikethrough or underline formatting).

Your submission will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jul 22, 2022, we will assume you wish to withdraw the manuscript from further consideration.

EDITOR COMMENTS:

Dear Peter,

Thank you for your submission. The editors discussed the submission and we felt that the manuscript would be significantly strengthened if you expanded this to a full length original research report. Particularly given the large number of patients, this would allow a much greater explanation of the outcomes and an expanded format to describe the methodology.

Thanks,
Jason

REVIEWER COMMENTS:

Reviewer #1: This is a research letter describing prevalence of various perinatal outcomes by SARS CoV 2 variant. I would strongly consider expanding this manuscript to a full paper given the amount of data you likely have, and the challenges of presenting it in a research letter form.

Intro
no comments

Methods

--lines 12-13 - It appears you are including both patients who were admitted in pregnancy for COVID19 as well as patients admitted for delivery with COVID19. If this is the case, not all patients were "eligible" for all of the outcomes being reported, and I would consider being clear about the denominators. For instance, I am not sure that a patient who is

admitted at 23 weeks with COVID19 and recovers to have a term/near term baby has the same risk for CD as a patient who has asymptomatic SARS-CoV-2 at term in labor. Now that you have so much data, separating out subcategories of similar patients would actually be really helpful to contextualize point prevalences. This is true for many of your outcomes; please consider being more specific with denominators.

--Are you including any patients with home positive test for COVID-19 (antigen tests) ? Especially since December 2021 (initial Omicron wave) many such patients existed and were treated as COVID19+ without proof of RT-PCR+. These patients may have received therapies and then been SARS-CoV-2 PCR negative upon admission to L&D and thus misclassified for the outcomes of interest. At a minimum, this should be stated in the limitations, but consideration for tracking this down in the EMR should be made.

--consideration for adjustment for multiple comparisons testing should be given

Results

--Table 1- legend. variant groupings are by delivery date - what if you had COVID in Oct 2021 but delivered in January 2022 - are you in the Omicron group or Delta group. Seems like you should be in the Delta group but the sentence under the table suggests you are in the Omicron group? Please clarify.

--Table 2 - p-values hard to interpret - what comparisons were made for each cell are not clear.

--Table 2 - can you clarify why it is not possible to know who was hospitalized during the original Wuhan strain for COVID19 ? Do you also know any more data on hospitalization, especially during alpha and delta, and pregnancy outcome?

--line 25 - what is the basis for stating that primary outcomes generally improved over time - which outcomes, and how was this statement substantiated statistically? trend testing ?

--line 30 - can you elaborate on the association between COVID19 hospitalization and primary outcomes - what comparisons were made?

--table 1 - do you have data on covid19 therapies given? mab, remdesivir, dex, paxlovid, etc

--table 2 - do you have data on fully vaccinated, not just 1 dose?

Discussion

--line 34 - as above - not clear what the basis is for stating that perinatal outcomes have improved.

--line 36-37 - I am not sure this fully substantiated by the data presented as data on hospitalizations for mod to severe illness during this time frame are not presented.

Reviewer #2:

Introduction:

-I would suggest to the authors to report the scientific designation of the different strains.

Methods:

-The study included patients starting March 2020, however universal testing started in April 2020. Was universal testing still performed till February 2022?

- Why was '2 days postpartum' used as the criteria for positivity?

- Was the management of COVID-19 patients the same during the whole study period at their center?

Results:

-"surprisingly high rates of infection among those who delivered during Omicron". It has already been reported in multiple studies the higher rate of infection during Omicron predominance due to increased transmissibility of the virus.

- "COVID-19 hospitalization did not correlate with primary outcomes ($p>0.05$). Did the authors compare the primary outcomes in hospitalized vs. not hospitalized patients? If not, please clarify this statement.

Discussion:

-"Improved perinatal outcomes across the pandemic may be due to less SARS-COV-2 virulence". I am not sure this statement is accurate since different variants had different characteristics: Delta was associated with more severe outcomes while not being as transmissible as Omicron that had less severe illness associated with it.

- "and availability of vaccines." While vaccination has been showed to be associated with favorable outcomes in pregnancies affected by COVID-19, the findings in this study do not reflect that so I am not sure it can be used as an

explanation for improved outcomes. Mainly all the vaccinated patients were in the Omicron group which didn't have statistically improved outcomes compared to the preceding Delta-variant.

- "Iatrogenic delivery to improve respiratory status in moderate to severe COVID-19 illness may explain the surge in preterm delivery at the beginning of the pandemic." It might be helpful to define disease severity at some point in the manuscript. This statement might be true for severe cases of COVID-19, however for moderate cases most of the patients might not have been admitted to the hospital.

- "This may be due to the differing patterns of disease spread". It is unlikely that the disease spread was different in different countries because the variants were similar. However, the difference in outcomes could be related to the management of pregnancies during the pandemic in different countries/centers

- "In conclusion, there was a general improvement in perinatal outcomes across the pandemic among pregnant patients with COVID-19." The only outcome that was "improved" (Table 2) was preterm birth which could be related to the small sample size. General conclusions cannot be made based on these small numbers especially for an outcome like preterm birth.

Tables:

- In table 2 vaccination is reported: mainly all vaccinated patients were in the Omicron group with only one reported in the delta group. I would not necessarily compare them with this big discrepancy in numbers as no conclusions can be really made.

STATISTICAL EDITOR COMMENTS:

Table 1: To aid the reader and avoid any confusion, suggest including the dates associated with each variant. Should also explicitly identify the time periods associated with "No predominant variant". Since all women were tested (lines 11-13) from April 2020 onward, but the original strain is comprised of those from March 8, 2020 to May 25, 2020, that cohort was not universally tested, so how can positivity rates etc be compared to later strains? Need to report the results of the original strain only during the times that there was comparable testing protocol to the later time periods.

Table 2: Again, cannot interpret data from Original strain vs other strains, given the differences in denominators.

EDITORIAL OFFICE COMMENTS:

1. If your article is accepted, the journal will publish a copy of this revision letter and your point-by-point responses as supplemental digital content to the published article online. You may opt out by writing separately to the Editorial Office at em@greenjournal.org, and only the revision letter will be posted.

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:

- * Funding information (ie, grant numbers or industry support statements) should be disclosed on the title page and at the end of the abstract. For industry-sponsored studies, describe on the title page how the funder was or was not involved in the study.
- * 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's Copyright Transfer Agreement (CTA) must be completed by all authors. When you uploaded your manuscript, each coauthor received an email with the subject, "Please verify your authorship for a submission to Obstetrics & Gynecology." Please ask your coauthor(s) to complete this form, and confirm the disclosures listed in their CTA are included on the manuscript's title page. If they did not receive the email, they should check their spam/junk folder. Requests to resend the CTA may be sent to em@greenjournal.org.

4. 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, describe the reasons that race and ethnicity were assessed in the Methods section and/or in table footnotes. Race and 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.

List racial and ethnic categories in tables in alphabetic order. Do not use "Other" as a category; use "None of the above" instead.

Please refer to "Reporting Race and Ethnicity in Obstetrics & Gynecology" at https://edmgr.ovid.com/ong/accounts/Race_and_Ethnicity.pdf.

5. ACOG uses person-first language. Please review your submission to make sure to center the person before anything else. Examples include: "People with disabilities" or "women with disabilities" instead of "disabled people" or "disabled women"; "patients with HIV" or "women with HIV" instead of "HIV-positive patients" or "HIV-positive women"; and "people who are blind" or "women who are blind" instead of "blind people" or "blind women."

6. The journal follows ACOG's Statement of Policy on Inclusive Language (<https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language>). When possible, please avoid using gendered descriptors in your manuscript. Instead of "women" and "females," consider using the following: "individuals;" "patients;" "participants;" "people" (not "persons"); "women and transgender men;" "women and gender-expansive patients;" or "women and all those seeking gynecologic care."

7. 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.

8. Make sure your manuscript meets the following word limit. The word limit includes the manuscript body text only (for example, the Introduction through the Discussion in Original Research manuscripts), and excludes the title page, précis, abstract, tables, boxes, and figure legends, reference list, and supplemental digital content. Figures are not included in the word count.

Original Research: 3,000 words

9. For your title, please note the following style points and make edits as needed:

- * Do not structure the title as a declarative statement or a question.
- * Introductory phrases such as "A study of..." or "Comprehensive investigations into..." or "A discussion of..." should be avoided in titles.
- * Abbreviations, jargon, trade names, formulas, and obsolete terminology should not be used.
- * Titles should include "A Randomized Controlled Trial," "A Meta-Analysis," "A Systematic Review," or "A Cost-Effectiveness Analysis" as appropriate, in the subtitle. If your manuscript is not one of these four types, do not specify the type of manuscript in the title.

10. Specific rules govern the use of acknowledgments in the journal. Please review the following guidelines and edit your title page as needed:

- * 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 or indicate whether the meeting was held virtually).
- * 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]."
- * Do not use only authors' initials in the acknowledgement or Financial Disclosure; spell out their names the way they appear in the byline.

11. Provide a précis for use in the Table of Contents. The précis is a single sentence of no more than 25 words that states the conclusion(s) of the report (ie, the bottom line). The précis should be similar to the abstract's conclusion. Do not use commercial names, abbreviations, or acronyms in the précis. Please avoid phrases like "This paper presents" or "This case presents."

12. Be sure that each statement and any data in the abstract are also stated in the body of your manuscript, tables, or figures. Statements and data that appear in the abstract must also appear in the body text for consistency. Make 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 manuscript.

In addition, the abstract length should follow journal guidelines. Please provide a word count.

Original Research: 300 words

13. 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.

14. The journal does not use the virgule symbol (/) in sentences with words, except with ratios. 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.

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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.

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

Express all percentages to one decimal place (for example, 11.1%). Do not use whole numbers for percentages.

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

18. Please review examples of our current reference style at https://edmgr.ovid.com/ong/accounts/ifa_suppl_refstyle.pdf. 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 formal reference list. Please cite them on the line in parentheses.

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. In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

Please make sure your references are numbered in order of appearance in the text.

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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 a point-by-point response to each of the received comments in this letter. Do not omit your responses to the EDITOR COMMENTS (if applicable), the REVIEWER COMMENTS, the STATISTICAL EDITOR COMMENTS (if applicable), or the EDITORIAL OFFICE COMMENTS.

If you submit a revision, we will assume that it has been developed in consultation with your coauthors and that each author has given approval to the final form of the revision.

Again, your manuscript will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jul 22, 2022, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Jason D. Wright, MD
Editor-in-Chief

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

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: <https://www.editorialmanager.com/ong/login.asp?a=r>). Please contact the publication office if you have any questions.

Dear Dr. Wright,

We would like to sincerely thank the reviewers and editors for their thoughtful and insightful comments. This work is now expanded into a full paper per suggestion, with more details and additional analysis provided. Because of the extensive changes to full paper, only responses to reviewers' comments were track and highlighted. Please find the attached point-by-point responses and the revised manuscript.

Sincerely,

Dr. Bernstein on behalf of co-authors

EDITOR COMMENTS:

Dear Peter,

Thank you for your submission. The editors discussed the submission and we felt that the manuscript would be significantly strengthened if you expanded this to a full length original research report. Particularly given the large number of patients, this would allow a much greater explanation of the outcomes and an expanded format to describe the methodology.

**Thanks,
Jason**

We agree and appreciate you giving us the opportunity to expand our manuscript.

REVIEWER COMMENTS:

Reviewer #1: This is a research letter describing prevalence of various perinatal outcomes by SARS CoV 2 variant. I would strongly consider expanding this manuscript to a full paper given the amount of data you likely have, and the challenges of presenting it in a research letter form.

We agree and have made that change.

**Intro
no comments**

Methods

1) --lines 12-13 - It appears you are including both patients who were admitted in pregnancy for COVID19 as well as patients admitted for delivery with COVID19. If this is the case, not all patients were "eligible" for all of the outcomes being reported, and I would consider being clear about the denominators. For instance, I am not sure that a patient who is admitted at 23 weeks with COVID19 and recovers to have a term/near term baby has the same risk for CD as a patient who has asymptomatic SARS-CoV-2 at term in labor. Now that you have so much data, separating out subcategories of similar patients would actually be really helpful to contextualize point prevalences. This is true for many of your outcomes; please consider being more specific with denominators.

Thank you for your comments. In order to be included in the study, patients must have given birth as we were interested in pregnancy outcomes. We then retrospectively reviewed if they had a positive COVID-19 test at any point during their pregnancy.

We now include data on when participants were infected by SARS-CoV-2 during their entire pregnancy (Table 3).

We also specified the denominators where it is ambiguous.

2) --Are you including any patients with home positive test for COVID-19 (antigen tests) ? Especially since December 2021 (initial Omicron wave) many such patients existed and were treated as COVID19+ without proof of RT-PCR+. These patients may have received therapies and then been SARS-CoV-2 PCR negative upon admission to L&D and thus misclassified for the outcomes of interest. At a minimum, this should be stated in the limitations, but consideration for tracking this down in the EMR should be made.

Home test results were not included as it is less reliable or not properly documented in the EMR. We decided to use only well-accepted PCR positive tests with accurate dating for comparisons.

--consideration for adjustment for multiple comparisons testing should be given

Thank you. Please see Table 2 and 3.

Results

3) --Table 1- legend. variant groupings are by delivery date - what if you had COVID in Oct 2021 but delivered in January 2022 - are you in the Omicron group or Delta group. Seems like you should be in the Delta group but the sentence under the table suggests you are in the Omicron group? Please clarify.

Variant grouping in Table 1 is by delivery date for comparison with COVID-19 negative individuals who delivered at the same time. Per your comment, we've included variant grouping by infection date (via PCR test) in Table 2 .

4) --Table 2 - p-values hard to interpret - what comparisons were made for each cell are not clear.

A new subscript format was used to make comparisons more clear. Thank you.

5) --Table 2 - can you clarify why it is not possible to know who was hospitalized during the original Wuhan strain for COVID19 ? Do you also know any more data on hospitalization, especially during alpha and delta, and pregnancy outcome?

Our hospital system did not consistently collect/document these data due to the chaotic nature in the early pandemic until after the original strain was dominant and before the Alpha strain was dominant. This is all the hospitalization data we have available at present.

6) --line 25 - what is the basis for stating that primary outcomes generally improved over time - which outcomes, and how was this statement substantiated statistically? trend testing ?

Thank you for your comment. You are correct that was missing. It was revised as:

Preterm birth rate significantly decreased across the pandemic while low birth weight, Cesarean delivery rate, and preeclampsia trended lower across the pandemic.

7) --line 30 - can you elaborate on the association between COVID19 hospitalization and primary outcomes - what comparisons were made?

This detail was left out due to word limitation. This is now added.

Association of COVID-19 hospitalization status with each of the outcomes were statistically tested and no associations were found ($p < 0.05$).

8) --table 1 - do you have data on covid19 therapies given? mab, remdesivir, dex, paxlovid, etc

Given our sample size, retrospective nature of the study, and the evolving treatment options across the pandemic, this study is underpowered to test the effects of different therapies. Treatment data were not extracted.

9) --table 2 - do you have data on fully vaccinated, not just 1 dose?

Not on all patients. Initially, the data was collected as 'vaccinated' or 'unvaccinated.' Later, more specific categories were created as guidelines on vaccination schedules evolved, but for the sake of consistency we defined 'vaccinated' to mean vaccinated at all.

Discussion

10) --line 34 - as above - not clear what the basis is for stating that perinatal outcomes have improved.

Thank you. This was revised.

11) --line 36-37 - I am not sure this fully substantiated by the data presented as data on hospitalizations for mod to severe illness during this time frame are not presented.

We agree. We now clarify that it is a speculation and elaborate on the way we did test this hypothesis using hospitalization for COVID-19.

Reviewer #2:

Introduction:

1) -I would suggest to the authors to report the scientific designation of the different strains.

Thank you, this has been added.

Methods:

2) -The study included patients starting March 2020, however universal testing started in April 2020. Was universal testing still performed till February 2022?

Yes universal testing still performed till February 2022. Note that the denominators are now patients who were universally tested when comparing across columns (see revisions to Table 2).

3) - Why was '2 days postpartum' used as the criteria for positivity?

COVID-19 test results could take a few days to come back and documented, especially during early pandemic. This inclusion was to ensure we captured such delays.

4) - Was the management of COVID-19 patients the same during the whole study period at their center?

Management of COVID-19 patients evolved throughout the pandemic from lessons learned and newly available treatments.

Results:

5) - "surprisingly high rates of infection among those who delivered during Omicron". It has already been reported in multiple studies the higher rate of infection during Omicron predominance due to increased transmissibility of the virus.

Thank you. We removed the word surprisingly.

6) - "COVID-19 hospitalization did not correlate with primary outcomes ($p>0.05$). Did the authors compare the primary outcomes in hospitalized vs. not hospitalized patients? If not, please clarify this statement.

Among COVID-19 positive individuals, we compared individuals who were hospitalized for COVID-19 to those who were not.

Discussion:

7) – "Improved perinatal outcomes across the pandemic may be due to less SARS-CoV-2 virulence". I am not sure this statement is accurate since different variants had different characteristics: Delta was associated with more severe outcomes while not being as transmissible as Omicron that had less severe illness associated with it.

Thank you, we agree. This was revised as:

The decrease in preterm birth rates may be due to differences in SARS-CoV-2 virulence among the variants, clearer guidelines regarding COVID-19 management during pregnancy, improved COVID-19 treatments, and availability of vaccines.

8) - "and availability of vaccines." While vaccination has been showed to be associated with favorable outcomes in pregnancies affected by COVID-19, the findings in this study do not reflect that so I am not sure it can be used as an explanation for improved outcomes. Mainly all the vaccinated patients were in the Omicron group which didn't have statistically improved outcomes compared to the preceding Delta-variant.

We agree. Association with vaccination is removed. The following is added.

The improved outcomes could be associated with general improvement in public health awareness, treatments, management and vaccine. Our study was not powered to distinguish the causes of improved outcomes.

9) - "Iatrogenic delivery to improve respiratory status in moderate to severe COVID-19 illness may explain the surge in preterm delivery at the beginning of the pandemic." It might be helpful to define disease severity at some point in the manuscript. This statement might be true for severe cases of COVID-19, however for moderate cases most of the patients might not have been admitted to the hospital.

We agree. This was the observation by OBG/GYN in our institution. We tested this hypothesis using our surrogate marker for severe COVID-19, hospitalization due to COVID-19, and it was not significantly associated with preterm birth, but the sample size was small.

10) -"This may be due to the differing patterns of disease spread". It is unlikely that the disease spread was different in different countries because the variants were similar. However, the difference in outcomes could be related to the management of pregnancies during the pandemic in different countries/centers

Thank you. Agree. This is now added:

The differences in outcomes are likely multifactorial and may also include differences in management of pregnancies during the pandemic in different centers, regions, and countries.

11) -"In conclusion, there was a general improvement in perinatal outcomes across the pandemic among pregnant patients with COVID-19." The only outcome that was "improved" (Table 2) was preterm birth which could be related to the small sample size. General conclusions cannot be made based on these small numbers especially for an outcome like preterm birth.

Agree. This was revised as:

Preterm birth rate significantly decreased across the pandemic while low birth weight, Cesarean delivery rate, and preeclampsia trended lower across the pandemic.

Tables:

12) - In table 2 vaccination is reported: mainly all vaccinated patients were in the Omicron group with only one reported in the delta group. I would not necessarily compare them with this big discrepancy in numbers as no conclusions can be really made.

Agreed. Such comparison was removed.

STATISTICAL EDITOR COMMENTS:

Table 1: To aid the reader and avoid any confusion, suggest including the dates associated with each variant. Should also explicitly identify the time periods associated with "No predominant variant". Since all women were tested (lines 11-13) from April 2020 onward, but the original strain is comprised of those from March 8, 2020 to May 25, 2020, that cohort was not universally tested, so how can positivity rates etc be compared to later strains? Need to report the results of the original strain only during the times that there was comparable testing protocol to the later time periods.

Thank you and we agree. We now reported the results of the original strain only during the times that there was comparable testing protocol to the later time periods. We also specify the denominator at multiple places in the manuscript where ambiguous.

Table 2: Again, cannot interpret data from Original strain vs other strains, given the differences in denominators.

Agreed, this has been corrected.

EDITORIAL OFFICE COMMENTS:

1. If your article is accepted, the journal will publish a copy of this revision letter and your point-by-point responses as supplemental digital content to the published article online. You may opt out by writing separately to the Editorial Office at em@greenjournal.org, and only the revision letter will be posted.

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*** 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.**

This has now been added.

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4. 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, describe the reasons that race and ethnicity were assessed in the Methods section and/or in table footnotes. Race and 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.

List racial and ethnic categories in tables in alphabetic order. Do not use "Other" as a category; use "None of the above" instead.

Please refer to "Reporting Race and Ethnicity in Obstetrics & Gynecology" at

Understood. While we report on the demographic information we had available we included the % unknown.

5. ACOG uses person-first language. Please review your submission to make sure to center the person before anything else. Examples include: "People with disabilities" or "women with disabilities" instead of "disabled people" or "disabled women"; "patients with HIV" or "women with HIV" instead of "HIV-positive patients" or "HIV-positive women"; and "people who are blind" or "women who are blind" instead of "blind people" or "blind women."

Understood.

6. The journal follows ACOG's Statement of Policy on Inclusive Language (<https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language>). When possible, please avoid using gendered descriptors in your manuscript. Instead of "women" and "females," consider using the following: "individuals;" "patients;" "participants;" "people" (not "persons"); "women and transgender men;" "women and gender-expansive patients;" or "women and all those seeking gynecologic care."

Understood.

7. 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.

Understood.

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Original Research: 3,000 words

Our manuscript is 2,883 words and meets the word limit.

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- * Introductory phrases such as "A study of..." or "Comprehensive investigations into..." or "A discussion of..." should be avoided in titles.**
- * Abbreviations, jargon, trade names, formulas, and obsolete terminology should not be used.**
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Understood.

10. Specific rules govern the use of acknowledgments in the journal. Please review the following guidelines and edit your title page as needed:

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- * 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.**
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Noted – all involved persons are authors or acknowledged.

11. Provide a précis for use in the Table of Contents. The précis is a single sentence of no more than 25 words that states the conclusion(s) of the report (ie, the bottom line). The précis should be similar to the abstract's conclusion. Do not use commercial names, abbreviations, or acronyms in the précis. Please avoid phrases like "This paper presents" or "This case presents."

We have included a précis.

12. Be sure that each statement and any data in the abstract are also stated in the body of your manuscript, tables, or figures. Statements and data that appear in the abstract must also appear in the body text for consistency. Make 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 manuscript.

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Original Research: 300 words

Our abstract is 298 words and meets the word limit.

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Understood.

15. 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.

Noted.

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

Express all percentages to one decimal place (for example, 11.1%). Do not use whole numbers for percentages.

For the multiple comparison testing, we were more interested in statistical significance (p-value) than effect size however if you would prefer another format for our statistics please let us know.

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Understood.