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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)\*

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: <a href="mailto:obgyn@greenjournal.org">obgyn@greenjournal.org</a>.

<sup>\*</sup>The corresponding author has opted to make this information publicly available.

**Date**: Oct 24, 2019

To: "Christina Paidas Teefey"

From: "The Green Journal" em@greenjournal.org

Subject: Your Submission ONG-19-1792

RE: Manuscript Number ONG-19-1792

Risk factors associated with cesarean delivery after induction of labor in women with class III obesity

Dear Dr. Teefey:

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).

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 Nov 14, 2019, we will assume you wish to withdraw the manuscript from further consideration.

## **REVIEWER COMMENTS:**

Reviewer #1: Dr Paidas Teefey and her team from the University of Pennsylvania present the results of a retrospective study to determine independent risk factors for cesarean delivery among women with a BMI of 40 kg/m2 or greater undergoing an induction of labor. Similar to a previously reported study, the authors identify an association of increasing BMI with increasing risk for cesarean delivery. This association suggests a dose-response of sorts for the association of increasing BMI with increasing risk for cesarean. In addition, the authors identify other independent risk factors for cesarean delivery in this population that include nulliparity, maternal height, initial cervical dilation and modified Bishop score. Lastly, women with a BMI of 40 or greater having a cesarean delivery had increased risk for maternal and neonatal morbidity as determined by a composite variable compared to women delivering vaginally. The authors do not recommend a certain BMI above which a woman should be offered a cesarean delivery, but they do suggest that their data, together with other referenced studies showing similar associations, can help with informed decision making. The manuscript is well-written and though the results are not unique, the results agree with other studies, which strengthens the association of maternal obesity with increased risk for cesarean delivery.

Specific questions or comments for the author:

1. Table 2 reports adjusted odds ratios for a number of predictors and their association with cesarean delivery. Though you list the covariates that you controlled for in the body of the text, it would potentially be helpful to readers to include a footnote to this table that lists out the covariates that were included in the final model.

Reviewer #2: The objective of this study was to determine risk factors associated with cesarean delivery in women with class III obesity (BMI  $\geq$ 40 kg/m2) undergoing induction of labor.

Study design: Retrospective cohort of obese women with a BMI  $\geq$ 40 kg/m2 and singleton pregnancy  $\geq$ 34 weeks at two large teaching institutions from January 2013 to December 2015. The primary outcome was cesarean delivery. Secondary outcomes included maternal and neonatal composite morbidity.

Findings: Nulliparity, shorter height and unfavorable cervical exam were the most significant risk factors for cesarean delivery. More than three quarters were non-Hispanic black women and, 55% were nulliparous.

The study addresses an important topic to obstetric patients and providers. I have several general and specific comments

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and suggestions.

#### General comments:

Study design: Retrospective cohort of obese women with a BMI  $\geq$ 40 kg/m2 and singleton pregnancy  $\geq$ 34 weeks undergoing induction of labor.

## Major strengths:

- (a) Large number
- (b) More than three quarters of the cohort were non-Hispanic black women and, 55% were nulliparous.
- (c) Providers can use these combinations of identifiable antepartum risk for individualized counseling of obese non-Hispanic black women undergoing induction of labor.
- (d) Please, consistent use of "cesarean delivery" rather than "cesarean section" throughout the manuscript!

#### Major weaknesses:

- (a) Retrospective cohort
- (b) Study population: More than three quarters of the cohort were non-Hispanic black women.
- (c) Difficult to translate the findings to other race/ethnic groups.

## Specific comments

#### **ABSTRACT**

1. Page 3 lines 48-50. Suggest inclusion of race/ethnic characteristics of study population See page 9 lines163-164. "More than three quarters ....... nulliparous."

#### INTRODUCTION

- 2. Page 5 lines 66-68. Suggest inclusion of distribution of class III obesity by race/ethnicity
- 3. Page 5 lines 78-80. Suggest focused expansion of background data (separate paragraph) on prediction models for induction success and, inclusion of findings from the following studies:
- (a) Hamm RF, et al. Using the Probability of Cesarean from a Validated Cesarean Prediction Calculator to Predict Labor Length and Morbidity. Am J Perinatol. 2019 May;36(6):561-566.
- (b) Rossi RM, et al. Predictive Model for Failed Induction of Labor Among Obese Women. Obstet Gynecol 2019:134:485-93
- (c) Tolcher MC, et al. Predicting Cesarean Delivery After Induction of Labor Among Nulliparous Women at Term. Obstet Gynecol. 2015 Nov;126(5):1059-68.

#### RESULTS

4. Page 9 lines 163-164. Hence, difficult to translate the findings to other race/ethnic groups.

## DISCUSSION

- 5. Page 12 lines 237-239. Suggest editing the sentence!
- 6. Page 13 lines 247-248. Strength or weakness? See general comments (above)

## **REFERENCES**

- 7. Pages 19-20 lines 287-318. Check references for accuracy, current relevance, and Green Journal format!
- 8. Suggest inclusion of the following:

Hamm RF, et al. Using the Probability of Cesarean from a Validated Cesarean Prediction Calculator to Predict Labor Length and Morbidity. Am J Perinatol. 2019 May;36(6):561-566.

Rossi RM, et al. Predictive Model for Failed Induction of Labor Among Obese Women. Obstet Gynecol 2019;134:485-93

Tolcher MC, et al. Predicting Cesarean Delivery After Induction of Labor Among Nulliparous Women at Term. Obstet Gynecol. 2015 Nov;126(5):1059-68.

Reviewer #3: This is a retrospective cohort study that a) sought to identify risk factors for cesarean delivery among morbidly obese women undergoing induction of labor and b) assessed the performance of previously described tool to predict the risk of cesarean delivery among women undergoing induction.

1. Introduction: Please comment on this paper in your introduction/discussion: Am J Obstet Gynecol. 2017 Oct;217(4):451.e1-451.e8. doi: 10.1016/j.ajog.2017.05.048. Epub 2017 May 31. Nonmedically indicated induction in morbidly obese women is not associated with an increased risk of cesarean delivery. Kawakita T, Iqbal SN, Huang CC, Reddy UM.

- 2. Methods: Is there a reason why you included women greater than or equal to 34 weeks? At the very least, the findings should probably be broken down by gestational age groups as inductions may differ in preterm and term deliveries. It looks like you only had 21 preterm deliveries, so why include them?
- 3. Methods: If induction was defined by cervical dilation less than or equal to 3 cm, then in Tables 1 and 2, does cervical dilation greater than or equal to 2 cm really mean 2 to 3 cm, e.g. no more than 3? would specify that.
- 4. Methods: I am curious about the decision to include diabetic and GDM patients that likely have different risks and outcomes compared to non-diabetics. This is not accounted for in the analysis as they are just grouped into maternal indications for induction.
- 5. Methods: Please report in the methods how many institutions were involved.
- 6. Figure 1/Methods: It is not clear to me how the search for patients undergoing induction of labor yielded subjects who had contraindications to induction of labor?
- 7. Table 1: How was failed induction defined? How is this different than arrest of dilation or arrest of descent? Do you mean latent phase arrest?
- 8. Results: I would like to see a table with the breakdown of maternal and neonatal composite outcomes, you touch on this in the Discussion lines 230-243 but the data should also be reported in the results rather than just the total composite outcome.

#### STATISTICAL EDITOR COMMENTS:

The Statistical Editor makes the following points that need to be addressed:

lines 52-53: The multivariable model results (Table 2), do show significant differences for nulliparity, maternal height and initial cervical dilation, but not for modified Bishop score. That difference was shown in Table 1, which was not multivariable.

Table 2: Should include a footnote to Table listing the covariates included in the final model as adjustors. The number of women with BMI  $\geq$  60 kg/m<sup>2</sup> (Table 1) was n = 11 for Cesarean delivery, so unless the aOR only included 1 adjustor, the number of adverse events is too few for that subset to reliably assess the aOR. It is likely an over fitted model. Is shorter height an independent risk factor (independent from BMI) or since shorter obese women would, by definition, have higher BMI, if they had the same weight.

Table 3:The calculation is correct, showing an association of increased maternal and neonatal composite morbidity vs occurrence of CD, but there is no adjustment for any other factors besides CD vs vaginal delivery.

Fig 2: Should round the estimate of AUC to 0.75 and include 95% CIs, both in legend to figure and in text.

The on-line calculator cited (line 229) has only one category for BMI  $\geq$  40 kg/m² and gives increments of maternal height as < 62", 62-63.9", 64-65.9" and  $\geq$  66". Either this needs to be explained in much more detail or the AUC section should be omitted from this study.

#### **EDITOR COMMENTS:**

- 1. Thank you for your submission to Obstetrics & Gynecology. In addition to the comments from the reviewers above, you are being sent a notated PDF that contains the Editor's specific comments. Please review and consider the comments in this file prior to submitting your revised manuscript. These comments should be included in your point-by-point response cover letter.
- \*\*\*The notated PDF is uploaded to this submission's record in Editorial Manager. If you cannot locate the file, contact Randi Zung and she will send it by email rzung@greenjournal.org.\*\*\*
- We no longer require that authors adhere to the Green Journal format with the first submission of their papers. However, any revisions must do so. I strongly encourage you to read the instructions for authors (the general bits as well as those specific to the feature-type you are submitting). The instructions provide guidance regarding formatting, word and reference limits, authorship issues, and other things. Adherence to these requirements with your revision will avoid delays during the revision process, as well as avoid re-revisions on your part in order to comply with the formatting.

#### - PRESENTATION OF STATS INFORMATION

#### P Values vs Effect Size and Confidence Intervals

While P values are a central part of inference testing in statistics, when cited alone, often the strength of the conclusion can be misunderstood. Whenever possible, 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.

This is true for the abstract as well as the manuscript. Please provide absolute values for variables, in addition to assessment of statistical significance. We ask that you provide crude OR's followed by adjusted OR's for all variables.

- most readers will know about the NICHD induction calculator. Is this something different? Please name the calculator or give its source.
- Other than height (and I may just be unfamiliar with that variable in other studies) these factors seem to be the same as those associated in other women for success of IOL.
- Perhaps counseling "at the bedside" could be made more generalizable by just saying "augment counseling" since much of this counseling will actually happen in the ambulatory clinics.
- While I don't disagree w/ anything you have said in the introduction here, i do think there is an important point to consider adding. Its known in other populations that the risk for morbidity in mothers and babies is higher when there is an unscheduled CS compared to a scheduled one. And risks for very obese women during and following CS are higher than for normal weight women. Do you think (entirely your call) its worth adding that for this group in particular that it would be really nice to lessen the risk of non-scheduled cesarean section by more accurately identifying the women unlikely to deliver vaginally after IOL?
- define "failed induction"
- Would you consider "women with class III obesity" instead?
- How was height determined? Especially important since it becomes one your important variables.
- Many people would consider Miso, Dinoprost and balloons as cervical ripening agents, not induction agents. Please clarify.
- Why did you select this? Zhang's study indicates active phase of labor at 6 cm or more; Friedman at 4. Where did you come up with 5cm?
- what modification of the Bishop score did you use?
- Please provide the n/428 in addition to the percentages for the different BMI's.
- Although different groups use the NICHD calculator for VBACS in different ways, at UNC if the predicted success rate is < 50%, we offer primary cesarean birth. Fullly acknowledging that you are not focusing on VBACs patients, do you think a rate of CS of 2/3 is high enough in this group to counsel AGAINST IOL?
- how did you define "shorter"? Was this a continuous variable?
- Lines 164-166: is this on univariate analysis? Please provide the data.
- Bishop is a person's name. Please cap.
- from what lower bound?
- Did "Multiparous" include women whose prior deliveries were all by cesareans?
- limit p values to 3 decimals
- Do you mean "when limiting"?
- What is variance inflation factor for height in BMI calculation. Given that height is squared in the BMI calculation, does it just carry more "Weight" in your results than it should?

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- Significant increase compared to what?
- line 161 you say > 2/3 (or 66%). please be consistent
- We use "cesarean birth or delivery" not "Cesarean section". Please edit here and throughout.
- its in the same ballpark, don't you think? Perhaps, This is "Similar to...."?
- This calculator is vaguely mentioned throughout your paper--it almost seems "shadowy". Can you be more transparent about it?
- this statement is true for non obese women as well.
- in what population?
- I'm unclear how a "tertiary care center" can have 2 separate hospitals.
- 2. The Editors of Obstetrics & Gynecology are seeking to increase 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.
- 3. As of December 17, 2018, Obstetrics & Gynecology has implemented an "electronic Copyright Transfer Agreement" (eCTA) and will no longer be collecting author agreement forms. When you are ready to revise your manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA.

Please check with your coauthors to confirm that the disclosures listed in their eCTA forms are correctly disclosed on the manuscript's title page.

4. Please submit a completed STROBE checklist.

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), 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, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

- 5. 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 and gynecology data definitions at https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.
- 6. 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 22 typed, double-spaced pages (5,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.
- 7. 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

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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).
- 8. 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 limits for different article types are as follows: Original Research articles, 300 words. Please provide a word count.

- 9. 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.
- 10. 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.
- 11. 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%").

- 12. 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.
- 13. Figures 1 and 2 may be resubmitted as-is.
- 14. 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 http://edmgr.ovid.com/acd/accounts/ifauth.htm.

Please note that if your article is accepted, you will receive an email from the editorial office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.

- 15. If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded in a word processing format such as Microsoft Word. 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.

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 Nov 14, 2019, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Nancy C. Chescheir, MD Editor-in-Chief

2018 IMPACT FACTOR: 4.965

2018 IMPACT FACTOR RANKING: 7th 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.

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To: Dr. Nancy C. Chescheir, MD, Editor-in-Chief, Obstetrics and Gynecology

From: Christina Paidas Teefey, MD

Re: Manuscript Number ONG-19-1792, Risk factors associated with cesarean delivery after

induction of labor in women with class III obesity

November 6, 2019

Dear Dr. Chescheir,

The following reviews were noted and we appreciate the opportunity to respond to the reviewers.

We have addressed your comments as well as the reviewers' comments to the best of our ability

and revised the manuscript accordingly. The time the reviewers took to provide such insightful

comments is appreciated. We think the paper is much stronger as a result of the review and

revision. We believe that this research is of significant interest to the readership of the Obstetrics

and Gynecology. Thank you again for your consideration of our work.

We have enclosed the revised manuscript and including both a clean version as well as a version

that highlights all of the changes made to the original manuscript ("track changes" version).

Please note that the line numbers in the below responses are for the "track changes" version of

the manuscript. STROBE guidelines have been followed and the checklist is included in the

resubmission as directed. The author instructions have been reviewed.

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The authors understand, if the article is accepted, the revision letter will be posted as supplemental digital content and opt in for the point-by-point response to be included as well.

## **REVIEWER COMMENTS:**

**Reviewer #1:** Dr Paidas Teefey and her team from the University of Pennsylvania present the results of a retrospective study to determine independent risk factors for cesarean delivery among women with a BMI of 40 kg/m2 or greater undergoing an induction of labor. Similar to a previously reported study, the authors identify an association of increasing BMI with increasing risk for cesarean delivery. This association suggests a dose-response of sorts for the association of increasing BMI with increasing risk for cesarean. In addition, the authors identify other independent risk factors for cesarean delivery in this population that include nulliparity, maternal height, initial cervical dilation and modified Bishop score. Lastly, women with a BMI of 40 or greater having a cesarean delivery had increased risk for maternal and neonatal morbidity as determined by a composite variable compared to women delivering vaginally. The authors do not recommend a certain BMI above which a woman should be offered a cesarean delivery, but they do suggest that their data, together with other referenced studies showing similar associations, can help with informed decision making. The manuscript is well-written and though the results are not unique, the results agree with other studies, which strengthens the association of maternal obesity with increased risk for cesarean delivery.

1. Table 2 reports adjusted odds ratios for a number of predictors and their association with

cesarean delivery. Though you list the covariates that you controlled for in the body of the text, it would potentially be helpful to readers to include a footnote to this table that lists out the covariates that were included in the final model.

- a) Thank you for this comment.
- b) A footnote has been included as an addendum to Table 2 to include the covariates included in the multivariate analysis.

**Reviewer #2:** The study addresses an important topic to obstetric patients and providers. I have several general and specific comments and suggestions.

## 1. General comments:

Study design: Retrospective cohort of obese women with a BMI ≥40 kg/m2 and singleton pregnancy ≥34 weeks undergoing induction of labor.

- a. Major strengths:
  - i. Large number
  - ii. More than three quarters of the cohort were non-Hispanic black women and,55% were nulliparous.
  - iii. Providers can use these combinations of identifiable antepartum risk for individualized counseling of obese non-Hispanic black women undergoing

induction of labor.

- iv. Please, consistent use of "cesarean delivery" rather than "cesarean section" throughout the manuscript!
  - 1. Thank you for this comment
  - The manuscript has been revised to consistently use "cesarean delivery"
- v. Major weaknesses:
  - (a) Retrospective cohort
  - (b) Study population: More than three quarters of the cohort were non-Hispanic black women.
  - (c) Difficult to translate the findings to other race/ethnic groups.

## 2. ABSTRACT

- a. Page 3 lines 48-50. Suggest inclusion of race/ethnic characteristics of study
   population. See page 9 lines 163-164. "More than three quarters ....... nulliparous."
  - 1. Thank you for this comment.
  - This information has been added to the abstract (line 52). A
    breakdown of the race/ethnic characteristics for the cohort was also
    added to Table 1.

## 3. INTRODUCTION

- a. Page 5 lines 66-68. Suggest inclusion of distribution of class III obesity by race/ethnicity
  - 1. Thank you for this comment.
  - Distribution of class III obesity based on race/ethnicity was added based on the NHANES 2011-2012 data which is most up to date known for this specific data.
  - 3. It can be found in the introduction (lines 72-74). The breakdown by race in the cohort was also added to Table 1.
- b. Page 5 lines 78-80. Suggest focused expansion of background data (separate paragraph) on prediction models for induction success and, inclusion of findings from the following studies:
  - Hamm RF, et al. Using the Probability of Cesarean from a Validated Cesarean Prediction Calculator to Predict Labor Length and Morbidity. Am J Perinatol. 2019 May;36(6):561-566.
  - Rossi RM, et al. Predictive Model for Failed Induction of Labor Among
     Obese Women. Obstet Gynecol 2019;134:485-93
  - iii. Tolcher MC, et al. Predicting Cesarean Delivery After Induction of Labor Among Nulliparous Women at Term. Obstet Gynecol. 2015 Nov;126(5):1059-68.
    - 1. Thank you for this comment.
    - Additional background information that includes a summary of the aforementioned studies has been added to the introduction with further

study-specific information regarding prior studies including in the discussion.

3. This paragraph can be found in (lines 80-89).

## 4. RESULTS

- a. Page 9 lines 163-164. Hence, difficult to translate the findings to other race/ethnic groups.
  - 1. Thank you for this comment.
  - 2. Please refer to 3a above. The race/ethnicity breakdown was also added into table 1.

## 5. DISCUSSION

- a. Page 12 lines 237-239. Suggest editing the sentence!
  - 1. Thank you for this comment.
  - This sentence was removed from the manuscript as the authors feel it
    is not relevant to the discussion as chorioamnionitis was not a part of
    the composite morbidity.
- b. Page 13 lines 247-248. Strength or weakness? See general comments (above)
  - 1. Thank you for this comment.
  - 2. After considering this comment, although the study included a large proportion of non-Hispanic black women, an understudied population, we agree that this does not allow the findings to translate to other ethnic populations. Additionally, we feel that this large subgroup as well as the large number of nulliparous women could increase the rate of cesarean delivery in our cohort as both are risk factors for cesarean.

3. This sentence has been revised and now reads: Although an understudied population, the fact that our cohort was over 75% non-Hispanic black women and does not necessarily translate to other ethnic subgroups. Importantly, studies addressing mode of delivery and risk factors for cesarean delivery in obese women also include cohorts that are predominantly non-Hispanic black/African American (lines 323-326).

## 6. REFERENCES

- a. Pages 19-20 lines 287-318. Check references for accuracy, current relevance, and Green Journal format!
  - 1. Thank you for this comment.
  - 2. References have been double checked and updated as suggested.
  - 3. References have been re-formatted to reflect the Journals requirements. See references.

# 7. Suggest inclusion of the following:

- a. Hamm RF, et al. Using the Probability of Cesarean from a Validated Cesarean
   Prediction Calculator to Predict Labor Length and Morbidity. Am J Perinatol. 2019
   May;36(6):561-566.
- Rossi RM, et al. Predictive Model for Failed Induction of Labor Among Obese
   Women. Obstet Gynecol 2019;134:485-93.
- c. Tolcher MC, et al. Predicting Cesarean Delivery After Induction of Labor Among Nulliparous Women at Term. Obstet Gynecol. 2015 Nov;126(5):1059-68.
  - 1. Thank you for this comment.

2. These articles have been included and referenced in the introduction and discussion of the manuscript.

\_\_\_\_\_\_

Reviewer #3: This is a retrospective cohort study that a) sought to identify risk factors for cesarean delivery among morbidly obese women undergoing induction of labor and b) assessed the performance of previously described tool to predict the risk of cesarean delivery among women undergoing induction.

## 1. Introduction

- a. Please comment on this paper in your introduction/discussion: Am J Obstet Gynecol. 2017 Oct;217(4):451.e1-451.e8. doi: 10.1016/j.ajog.2017.05.048. Epub 2017 May 31. Nonmedically indicated induction in morbidly obese women is not associated with an increased risk of cesarean delivery. Kawakita T, Iqbal SN, Huang CC, Reddy UM.
  - 1. Thank you for this comment.
  - 2. This citation was included in the introduction (lines 74-79) and referenced in the discussion as well.

## 2. Methods

a. Is there a reason why you included women greater than or equal to 34 weeks? At the very least, the findings should probably be broken down by gestational age groups as inductions may differ in preterm and term deliveries. It looks like you only had 21 preterm deliveries, so why include them?

- 1. Thank you for this comment.
- 2. We included the late preterm population as induction of labor and labor management in this population is similar to that at term. Data was run with and without these deliveries and there was no difference in outcomes. Therefore, the decision was made to include them in the final analysis. With that said, we would be willing to remove them from the paper in general, at the editor's request.
- b. If induction was defined by cervical dilation less than or equal to 3 cm, then in Tables 1 and 2, does cervical dilation greater than or equal to 2 cm really mean 2 to 3 cm, e.g. no more than 3? Would specify that.
  - 1. Thank you for this comment.
  - Cervical dilation category in Tables 1 and 2 changed from >=2 to
     2-3cm to clarify cervical exam parameters.
- c. I am curious about the decision to include diabetic and GDM patients that likely have different risks and outcomes compared to non-diabetics. This is not accounted for in the analysis as they are just grouped into maternal indications for induction.
  - 1. Thank you for this comment.
  - Individual maternal comorbidities (including Pregestational and gestational diabetes) were evaluated as confounders in our prediction model. As they were not independent predictors of cesarean or morbidity, they were combined into "maternal

indications" in the final analysis. There was no significant differences in the composite outcome based on indication for induction of labor.

- d. Please report in the methods how many institutions were involved.
  - 1. Thank you for this comment.
  - The study involved the two large teaching hospitals at the
     University of Pennsylvania (Hospital of the University of Pennsylvania and Pennsylvania Hospital). Please see lines 98-99.
  - 3. Sites 1 and 2 were also specified in Figure 1.
- e. Figure 1/Methods: It is not clear to me how the search for patients undergoing induction of labor yielded subjects who had contraindications to induction of labor?
  - 1. Thank you for this comment.
  - 2. We initially queried our entire electronic medical record system. Given limitations of coding and documentation, we assumed some inconsistencies with our initial search and ultimate eligibility. Therefore, individual detailed chart review was performed to ensure eligibility of all patients included. The individual chart review identified additional women who were then excluded in the analysis.
  - 3. See lines 108-109.
- 3. Table 1: How was failed induction defined? How is this different than arrest of dilation or arrest of descent? Do you mean latent phase arrest?

- 1. Thank you for these questions.
- 2. Failed induction and arrest disorders were defined based on criteria outlined in the 2012 NICHD guidelines. This has been added to the methods. Failed induction was used to describe those with latent phase arrest. This has been added to Table 1.

## 4. Results

- a. I would like to see a table with the breakdown of maternal and neonatal composite outcomes, you touch on this in the Discussion lines 230-243 but the data should also be reported in the results rather than just the total composite outcome.
  - 1. Thank you for this comment.
  - 2. We have added the components of the maternal and neonatal composites to Table 3.

## STATISTICAL EDITOR'S COMMENTS:

- 1. Lines 52-53: The multivariable model results (Table 2), do show significant differences for nulliparity, maternal height and initial cervical dilation, but not for modified Bishop score. That difference was shown in Table 1, which was not multivariable.
  - 1. Thank you for this comment.
  - 2. Modified Bishop score has now been added to Table 2.
- 2. Table 2: Should include a footnote to Table listing the covariates included in the final model as adjustors. The number of women with BMI  $\geq$  60 kg/m<sup>2</sup> (Table 1) was n = 11

for Cesarean delivery, so unless the aOR only included 1 adjustor, the number of adverse events is too few for that subset to reliably assess the aOR. It is likely an over fitted model. Is shorter height an independent risk factor (independent from BMI) or since shorter obese women would, by definition, have higher BMI, if they had the same weight.

- 1. Thank you for this comment.
- 2. A footnote has been added to Table 2. Due to the observational nature of our study we must account for many potential confounders that are not able to be controlled for with randomization. Height, nulliparity, and dilation were all found to be confounders. The decision was made to account for all of these confounders in the final model even though one group had a lower prevalence.
- 3. Table 3: The calculation is correct, showing an association of increased maternal and neonatal composite morbidity vs occurrence of CD, but there is no adjustment for any other factors besides CD vs vaginal delivery.
  - 1. Thank you for this comment.
  - The authors only looked at univariate associations for the secondary outcomes.
- 4. Fig 2: Should round the estimate of AUC to 0.75 and include 95% CIs, both in legend to figure and in text.
  - 1. Thank you for this comment.
  - 2. The figure legend (Figure 2) now reflects this change which is consistent with the text (lines 216-217).

- 5. The on-line calculator cited (line 229) has only one category for BMI ≥ 40 kg/m² and gives increments of maternal height as < 62", 62-63.9", 64-65.9" and ≥ 66". Either this needs to be explained in much more detail or the AUC section should be omitted from this study.</p>
  - 1. Thank you for this comment.
  - 2. For the original study, the individual height criteria were noted to have different coefficients in the prediction model and therefore those categories were utilized in the final model. There were, however, non-significant incremental differences in the coefficients in the model for BMI ≥ 40 kg/m². Therefore, for the original prediction model, all BMI values above 40 were grouped together. Despite this, we feel that comparing our outcomes to those in the original study still has value. All women from our study were given points for BMI over 40.
  - 3. This has been clarified. See lines 167-171).

## **EDITOR COMMENTS:**

Thank you for your submission to Obstetrics & Gynecology. In addition to the comments from the reviewers above, you are being sent a notated PDF that contains the Editor's specific comments. Please review and consider the comments in this file prior to submitting your revised manuscript. These comments should be included in your point-by-point response cover letter.

\*\*\*The notated PDF is uploaded to this submission's record in Editorial Manager. If you cannot locate the file, contact Randi Zung and she will send it by email - rzung@greenjournal.org.\*\*\*

- 1. We no longer require that authors adhere to the Green Journal format with the first submission of their papers. However, any revisions must do so. I strongly encourage you to read the instructions for authors (the general bits as well as those specific to the feature-type you are submitting). The instructions provide guidance regarding formatting, word and reference limits, authorship issues, and other things. Adherence to these requirements with your revision will avoid delays during the revision process, as well as avoid re-revisions on your part in order to comply with the formatting.
  - 1. Thank you for this information.
  - These guidelines were reviewed and on resubmission, our best effort was made to meet all requirements.

## 2. PRESENTATION OF STATS INFORMATION

a. P Values vs Effect Size and Confidence Intervals. While P values are a central part of inference testing in statistics, when cited alone, often the strength of the conclusion can be misunderstood. Whenever possible, 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. This is true for the abstract as well as the manuscript. Please provide absolute values for variables, in addition to assessment of statistical significance. We ask that you provide crude OR's followed by adjusted OR's for all variables.

- 1. Thank you for this comment.
- 2. Changes have been made to support P values where appropriate.
- Most readers will know about the NICHD induction calculator. Is this something different? Please name the calculator or give its source.
  - 1. Thank you for this comment.
  - 2. The calculator is different than the NICHD calculator, which is specifically for women with a prior cesarean delivery predicting VBAC success. The original calculator was developed and validated by Levine, L.D., et al., A validated calculator to estimate risk of cesarean after an induction of labor with an unfavorable cervix. Am J Obstet Gynecol, 2018. 218(2): p. 254 e1-254 e7. This serves as the basis for our model.
- 4. Other than height (and I may just be unfamiliar with that variable in other studies) these factors seem to be the same as those associated in other women for success of IOL.
  - 1. Thank you for this comment.
  - The associated factors including height are not novel in the literature as risk factors for cesarean delivery in general. However,

- it is important to evaluate and understand that these are also risk factors in the morbidly obese patient.
- 5. Perhaps counseling "at the bedside" could be made more generalizable by just saying "augment counseling"since much of this counseling will actually happen in the ambulatory clinics.
  - 1. Thank you for this comment.
  - The recommendation to augment counseling in the abstract and discussion has been changed to be more generalizable (lines 63-64, 275-277, 300-302).
- 6. While I don't disagree w/ anything you have said in the introduction here, I do think there is an important point to consider adding. It is known in other populations that the risk for morbidity in mothers and babies is higher when there is an unscheduled CS compared to a scheduled one. And risks for very obese women during and following CS are higher than for normal weight women. Do you think (entirely your call) its worth adding that for this group in particular that it would be really nice to lessen the risk of non-scheduled cesarean section by more accurately identifying the women unlikely to deliver vaginally after IOL?
  - 1. Thank you for this comment.
  - 2. We agree this is an important point to address although the authors feel most comfortable leaving it in the discussion and not introduction. We prefer to address this point in the discussion in lines 277-279 and 299-305.
- 7. Define "failed induction"

- 1. Thank you for this comment.
- 2. Failed induction and arrest disorders were defined based on criteria outlined in the 2012 NICHD guidelines. This has been added to the methods. Failed induction was used to describe those with latent phase arrest. In addition, the following sentence has now been clarified and now reads: "cesarean delivery after induction" and not "failed induction."
- 3. See lines 126-127.
- 8. Would you consider "women with class III obesity" instead?
  - 1. Thank you for this comment.
  - The paper terminology has been changed to reflect this suggestion consistently.
- 9. How was height determined? Especially important since it becomes one your important variables.
  - 1. Thank you for this comment.
  - 2. Height was determined based on reported inches at the time of first prenatal visit. This was added to the manuscript (lines 115-116).
- 10. Many people would consider Miso, Dinoprost and balloons as cervical ripening agents, not induction agents. Please clarify.
  - 1. Thank you for this comment.
  - Terminology was changed in the manuscript to reflect the use of "ripening or induction agents" (lines 118-119).

- 11. Why did you select this? Zhang's study indicates active phase of labor at 6 cm or more; Friedman at 4. Where did you come up with 5cm?
  - 1. Thank you for this suggestion.
  - 2. This was an error and oversight, active phase labor was defined at 6cm or more based on the Zhang study. This has been corrected in the methods section (line 120). All collected data was based on active labor with a cervical dilation of 6cm or more.
- 12. What modification of the Bishop score did you use?
  - 1. Thank you for this comment.
  - We used a modified Bishop score that included dilation, effacement and station (lines 123-124).
- 13. Please provide the n/428 in addition to the percentages for the different BMI's.
  - 1. Thank you for this comment.
  - 2. This was added to the results section (lines 177-178).
- 14. Although different groups use the NICHD calculator for VBACS in different ways, at UNC if the predicted success rate is < 50%, we offer primary cesarean birth. Fully acknowledging that you are not focusing on VBACs patients, do you think a rate of CS of 2/3 is high enough in this group to counsel AGAINST IOL?
  - 1. Thank you for this comment.
  - 2. I do not feel that there is a specific number which exceeds the limit to counsel against induction. Rather, I feel there is a shared decision making process in which one may feel that this risk is too

high when compounded by a risk for further maternal and or neonatal morbidity.

- 15. How did you define "shorter"? Was this a continuous variable?
  - 1. Thank you for this comment.
  - 2. This has been clarified with the statement: For each 1-inch increase in patient height, their odds of having a cesarean delivery decreased by 15%."
  - 3. See lines 201-202.
- 16. Lines 164-166: is this on univariate analysis? Please provide the data.
  - 1. Thank you for this comment
  - 2. This refers to univariate analysis. The sentence was clarified and now reads: "On univariate analysis, nulliparity, BMI category, a shorter maternal height, chronic hypertension, more unfavorable initial cervical exam, preterm delivery and modified Bishop score were associated with a significantly higher rate of cesarean delivery."
  - 3. See lines 184-187.
- 17. Bishop is a person's name. Please cap.
  - 1. Thank you for this comment
  - 2. This correction has been made throughout the paper consistently.
- 18. From what lower bound?
  - 1. Thank you for this comment.

- If understood correctly, the lowest bound (or shortest height) was
   inches. Height is a continuous variable and the model estimate is a 1 unit change and can be applied in any case without a specific lower bound.
- 19. Did "Multiparous" include women whose prior deliveries were all by cesareans?
  - 1. Thank you for this comment.
  - 2. Multiparous refers to women with a prior vaginal delivery. This has now been clarified in line 200).
- 20. Limit p values to 3 decimals
  - 1. Thank you for this comment
  - 2. This has been changed throughout the manuscript.
- 21. Do you mean "when limiting"?
  - 1. Thank you for this comment.
  - 2. It was felt that this terminology added unnecessary confusion to the sentence. The sentence is meant to reflect that the authors made the best effort to compare our cohort to the original cohort studied. The sentence now reads: "The analysis was then repeated after excluding those with a prior cesarean delivery and those that delivered <37 weeks. Using the inclusion criteria from the original study, the area under the Receiver Operating Characteristic curve was 77% (95% CI 0.72, 0.82)".</p>
  - 3. See lines (lines 214-217).

- 22. What is variance inflation factor for height in BMI calculation? Given that height is squared in the BMI calculation, does it just carry more "Weight" in your results than it should?
  - 1. Thank you for this comment.
  - At the editors request we computed the variance inflation (VIF). The VIF for height in our model is 1.01 and 1.03 for BMI. Given these value are so close to one, there is very little evidence to support collinearity in our findings between these two variables. Height does appear to positively confound the 60+ BMI group only. Comparing the odds ratio estimates for BMI 60+ group (with BMI 40-49.9 as referent) between a model which includes height and one that does not, there is relative increase of 16%. The confounding effect of height on the BMI 50-59.9 group was minimal. Inclusion of height in the multivariable model resulted in a decrease of 3% in the odds ratio for this BMI category. Given this information, we do not think that inclusion of height in our model was "over adjustment". In fact, the statistically significant association with BMI 50-59.9 category is unaffected by the inclusion of height in the model for failed induction.
- 23. Significant increase compared to what?
  - 1. Thank you for this comment
  - 2. The sentence was restructured to include the comparison to women with class III obesity that delivered vaginally. The sentence now

reads: "In this retrospective cohort study of class III obese women undergoing induction of labor there was a significant increase in rate of cesarean delivery that correlates with maternal and neonatal morbidity compared to those delivering vaginally (lines 219-221).

- 24. Line 161 you say > 2/3 (or 66%). please be consistent
  - 1. Thank you for this comment.
  - 2. The sentence was changed to read: The rate of cesarean delivery in this cohort approaches 50% with an increase to 66% in women with a BMI of 50kg/m<sup>2</sup> (lines 221-222).
- 25. We use "cesarean birth or delivery" not "Cesarean section". Please edit here and throughout.
  - 1. Thank you for this comment
  - 2. This has been edited throughout the manuscript to be consistent.
- 26. It's in the same ballpark, don't you think? Perhaps, This is "Similar to...."?
  - 1. Thank you for this comment
  - 2. Although slightly higher, we agree, the cesarean delivery rate in our study does not "exceed" that of prior studies. The sentence was changed to reflect this point and now reads: This is similar to previously reported (60-64%) rate of cesarean delivery after induction in nulliparous women with a BMI greater than 60 kg/m². (lines 230-236)
- 27. This calculator is vaguely mentioned throughout your paper--it almost seems "shadowy".
  Can you be more transparent about it?

- 1. Thank you for this comment
- 2. We have made an effort to be more transparent about the calculator in the methods, result and discussion sections to be more clear.
- 28. This statement is true for non obese women as well.
  - 1. Thank you for this comment
  - 2. Although that is true, this is not the target population of our study and therefore nothing was changed.

## 29. In what population?

- 1. Thank you for this comment
- The comment referred to women with class III obesity. The sentence now reads: This is significantly higher than previously reported in women with class III obesity (lines 269-270).
- 30. I'm unclear how a "tertiary care center" can have 2 separate hospitals.
  - 1. Thank you for this comment
  - The sentence was modified for clarification and now reads: "This study included women from two teaching hospitals, in an urban area which increases generalizability." (Lines 307-308).
- 31. The Editors of Obstetrics & Gynecology are seeking to increase 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.

- a. Please reply to this letter with one of two responses:
  - a. The authors OPT-IN: Yes, please publish my point-bypoint response letter.
- 32. As of December 17, 2018, Obstetrics & Gynecology has implemented an "electronic Copyright Transfer Agreement" (eCTA) and will no longer be collecting author agreement forms. When you are ready to revise your manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA. Please check with your coauthors to confirm that the disclosures listed in their eCTA forms are correctly disclosed on the manuscript's title page.
  - 1. Thank you for this comment.
  - The coauthors are aware that they will be receiving an email to review and electronically sign.
  - 3. Author disclosures have been reviewed and the disclosure statement is unchanged.
- 33. Please submit a completed STROBE checklist. 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), 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 <a href="http://ong.editorialmanager.com">http://ong.editorialmanager.com</a>. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

- 1. Thank you for this comment.
- 2. A STROBE checklist is included with resubmission.
- 34. 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 and gynecology data definitions at <a href="https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize">https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize</a>. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

- 1. Thank you for this comment.
- 2. The use of the revitalize definitions is not problematic.
- 35. 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 22 typed, double-spaced pages (5,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.
  - 1. Thank you for this comment
  - 2. The manuscript meets these requirements.
- 36. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:
  - a. All financial support of the study must be acknowledged.
    - 1. Thank you for this comment
    - 2. There was no financial support for this research.
  - b. 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.
    - 1. Thank you for this comment
    - 2. There are no further persons involved in the article preparation.
  - c. 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.

- 1. Thank you for this comment.
- 2. There are no contributors aside from the listed authors.
- d. 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).
  - 1. Thank you for this comment
  - This original research was presented as a poster at the Society of Maternal Fetal Medicine, Pregnancy Meeting in Dallas Texas on February 2, 2018. This is also stated on the cover page as directed.
- 37. 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 limits for different article types are as follows:

  Original Research articles, 300 words. Please provide a word count.
  - 1. Thank you for this comment
  - 2. The abstract has been reviewed and meets paper guidelines.

- 38. Only standard abbreviations and acronyms are allowed. A selected list is available online at <a href="http://edmgr.ovid.com/ong/accounts/abbreviations.pdf">http://edmgr.ovid.com/ong/accounts/abbreviations.pdf</a>. 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.
  - 1. Thank you for this comment.
  - 2. Only standard abbreviations have been used.
- 39. 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.
  - 1. Thank you for this comment
  - 2. The paper has been revised to not include the virgule symbol throughout.
- 40. 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.
  - a. 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.

- b. 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%").
- 41. 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.
  - a. Figures 1 and 2 may be resubmitted as-is.
    - 1. Thank you for this comment.
    - Figures 1 and 2 will be resubmitted with slight modifications as referenced in this document.
- 42. 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 <a href="http://links.lww.com/LWW-ES/A48">http://links.lww.com/LWW-ES/A48</a>. The cost for publishing an article as open access can be found at <a href="http://edmgr.ovid.com/acd/accounts/ifauth.htm">http://edmgr.ovid.com/acd/accounts/ifauth.htm</a>. Please note that if your article is accepted, you will receive an email from the editorial office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.
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  - 2. The authors will be sure to respond promptly to emails.
- 43. If you choose to revise your manuscript, please submit your revision through Editorial Manager at <a href="http://ong.editorialmanager.com">http://ong.editorialmanager.com</a>. Your manuscript should be uploaded in a

word processing format such as Microsoft Word. Your revision's cover letter should include the following:

- a. A confirmation that you have read the Instructions for Authors
   (http://edmgr.ovid.com/ong/accounts/authors.pdf)
- b. A point-by-point response to each of the received comments in this letter.
  - 1. Thank you for the comments
  - 2. The cover letter reflect these requirements.

Thank you for your consideration of our work,

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