OBSTETRICS & GYNECOLOGY

NOTICE: This document contains correspondence generated during peer review and subsequent revisions but before transmittal to production for composition and copyediting:

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

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

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

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

Date: Feb 14, 2020
To: "Thomas Schmitz" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-20-24

RE: Manuscript Number ONG-20-24

Impact of Internal Version Compared with Pushing on Neonatal Morbidity of Cephalic Second Twins

Dear Dr. Schmitz:

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 Mar 06, 2020, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

REVIEWER #1:

The authors present their manuscript evaluating the impact on neonatal health of internal version compared to pushing in delivery of a cephalic second twin. The following items should be addressed:

1. Abstract line 94 - please include a unit of time (in the text these are labeled as minutes, but it would be helpful if that were clarified in the abstract as well).

2. Methods line 202-206 - how were these definitions of expertise decided? It is possible that within each hospital certain individual providers had more expertise in one method or the other, and their personal involvement in a woman's birth would alter the outcome.

3. Results line 242-256 - these analyses by center expertise are only evaluating the top and bottom quartile, as per the authors' definition of expertise. It would be valuable for the reader if the authors were to describe the outcomes in the middle two quartiles, at centers which demonstrated equivalent expertise in the two methods of delivery.

4. In the discussion, the authors refer to the shorter intertwin delivery interval. The authors are to be applauded for acknowledging that this shortened difference is not likely to be of clinical significance, and the same for the cesarean rate.

5. The authors discuss the potential causes of the differences noted between groups, but there is no mention of differences in fetal weight; it would be helpful to include analysis in which the difference in weight between the fetuses is accounted for, and whether the second twin is larger than the first. This is particularly of interest given that in the group with more experience with internal version the patients were more likely to be nulliparous.

6. Discussion line 321-322 - the strength of the statement regarding risk of cesarean should be tempered, in light of the comments above (see #4).

REVIEWER #2:

1. line 94 please add units to the delivery intervals.

2. please define JUMODA as JUmeaux MODe d'Accouchement the first time this acronym is used.

3. line 113: please change "lower blood gas" to lower pH unless you are referring to all components of the blood gas

4. please define the JUMODA population. does this database include all pregnant women? all women presenting in labor? is data from all patients captured? if not what percent?

5. what was the average duration of time between the patients most recent ultrasound and admission for labor?

6. what percentage of women had uterine anomalies or fibroids? were these women excluded? do physicians in your cohort routinely include or exclude patients with such when considering IPV.

7. chorioamnionitis was not an exclusion criteria, but one that could affect your outcome variables. please comment.

8. is there an estimated fetal weight above which patients were excluded from IPV

9. why weren't providers asked to complete the web based questionnaire about planned mode of delivery prior to delivery. by completing after delivery providers could have changed their responses to match the outcome.

10. what percentage of the questionnaires were completed and when (i.e.: time interval from delivery until completion).

11. placenta previa is listed in Table I . a total of four women with placenta previa were included in the study. please describe the indication for vaginal delivery in these women. were these marginal previa?

12. 180: what characteristics of the women, pregnancies, labors and neonates?

13. are umbilical arterial cord gases obtained routinely on each baby?

14. please provide a reference for the statement line 199 "engaging...and therefore at lower risk of neonatal morbidity"

15. please define "intention to verse"

16. lines 200-202 are confusing.

17. line 200 what misunderstandings?

18. ideally its important to identify experts in internal podalic version, yet wouldn't all obstetricians be experts at pushing?

19. How were obstetricians who fell into the second and third quartile ranked? were there deliveries included?

20. what is the distribution of the obstetricians experienced in IPV? could this have affected the outcome? i.e.: are more seasoned obstetricians also located at the medical centers where older women become pregnant after assisted repro technologies.

21. what were the indications for cesarean delivery? did gestational age affect the rate of cesarean delivery?

22. what was the rate of operative vaginal delivery in each group?

23. the last paragraph of the results section describes the outcomes of patients delivered by either pushing or IPV experts. this effectively excludes half of the patients. was there a comparison to the non expert groups? what is the purpose of this section?

REVIEWER #3:

This is a prospective observational cohort study. It is a planned secondary analysis of the JUMODA conducted to assess the effect of planned mode of delivery on outcome in twins.
Very interesting topic as there is very little data in management of second twins and this is a relatively large cohort.

1. Would be interested to see as a supplemental the questionnaire that the physicians completed by phone.

2. Do you have the data to compare initial plan for delivery. In other words can you compare those that were initially told to push vs those who were never asked to push? A sort of intention to deliver cephalic

3. Can you expand in line 146, "always checked by vaginal examination" was ultrasound ever used, or was the a means to allow all sites, even those without ultrasound to participate

4. Demographic or setting of hospitals that primarily managed their cephalic second twin with pushing vs version. Was one more likely an academic center or had trainees or in higher population risk centers?

STATISTICAL EDITOR'S COMMENTS:

1. Tables 3, 4: The main problem with the study is that it was under powered to evaluate the primary outcome. That outcome is relatively rare and this study has only ~ 44% power to discern the difference shown, given the sample sizes and proportions observed. Put in other ways, the samples would have to be at least 2x the present, even to demonstrate a 50% reduction in rate of primary composite neonatal outcome. In part, this can be inferred by the wide CIs shown for the RRs and aRRs.

2. Additional issues (Table 1, lines 218-220) are that the cohorts were different and of course, that the groups were not randomly allocated.

3. lines 236-241, 242-256: The subset analyses of ≥37 wks and that by hospital center expertise are even more under powered in terms of the primary outcome.

4. line 250: The 95% CI should be [0.62-5.86], not [62-5.86].

ASSOCIATE EDITOR'S COMMENTS:

We are happy to consider a revision if it explicitly, from Precis on, addresses the power concerns of the Statistical Editor.

EDITORIAL OFFICE COMMENTS:

1. 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.

2. 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.

3. All studies should follow the principles set forth in the Helsinki Declaration of 1975, as revised in 2013, and manuscripts should be approved by the necessary authority before submission. Applicable original research studies should be reviewed by an institutional review board (IRB) or ethics committee. This review should be documented in your cover letter as well in the Materials and Methods section, with an explanation if the study was considered exempt. If your research is based on a publicly available data set approved by your IRB for exemption, please provide documentation of this in your cover letter by submitting the URL of the IRB website outlining the exempt data sets or a letter from a representative of the IRB. In addition, insert a sentence in the Materials and Methods section stating that the study was approved or exempt from approval. In all cases, the complete name of the IRB should be provided in the manuscript.

4. 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.

5. 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.

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

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the

entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).

7. Provide a short title of no more than 45 characters (40 characters for case reports), including spaces, for use as a running foot.

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. We discourage claims of first reports since they are often difficult to prove. How do you know this is the first report? If this is based on a systematic search of the literature, that search should be described in the text (search engine, search terms, date range of search, and languages encompassed by the search). If on the other hand, it is not based on a systematic search but only on your level of awareness, it is not a claim we permit.

13. 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.

14. The American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found via the Clinical Guidance & Publications page at https://www.acog.org/Clinical-Guidance-and-Publications/Search-Clinical-Guidance.

15. 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.

***

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 Mar 06, 2020, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

The Editors of Obstetrics & Gynecology

2018 IMPACT FACTOR: 4.965
2018 IMPACT FACTOR RANKING: 7th out of 83 ob/gyn journals

_____

[redacted]

Paris, February 28th 2020

Dear Editors,

Thank you for your response on February 15th 2020, concerning our manuscript ONG-20-24 entitled "Impact of Internal Version Compared with Pushing on Neonatal Morbidity of Cephalic Second Twins" informing us you would be willing to give further consideration to a revised version.

The authors are very grateful to the Reviewers and Editors for their constructive help. We think the paper has been much improved. Our revised version has taken into account all the following points raised by the Reviewers and Editors.

The National Data Protection Authority (DR-2013-528), the consultative committee on the treatment of information on personal health data for research purposes (13-298), and the committee for the protection of people participating in biomedical research (PP-13-014) approved this study.

All the authors have read and approved the revised version of the paper.

We hope our manuscript now meets the standards of *Obstetrics & Gynecology*.

Yours sincerely,

Thomas Schmitz

All line numbers refer to the revised version of the manuscript without the highlighted changes.

REVIEWER COMMENTS:

REVIEWER #1:

The authors present their manuscript evaluating the impact on neonatal health of internal version compared to pushing in delivery of a cephalic second twin. The following items should be addressed:

1. Abstract line 94 - please include a unit of time (in the text these are labeled as minutes, but it would be helpful if that were clarified in the abstract as well).
We included the limit of time as request by the Reviewer, line 94.

2. Methods line 202-206 - how were these definitions of expertise decided? It is possible that within each hospital certain individual providers had more expertise in one method or the other, and their personal involvement in a woman's birth would alter the outcome.
These definitions were decided by taking into account both the level of activity of the maternity units in twin deliveries and the number of internal versions performed each year. We could have chosen more stringent thresholds (more than 100 twin deliveries, upper quintile or even decile) but it would have resulted from such choices a smaller population and consequently a lack of statistical power. We do not have the information of the personal expertise in internal version of each of the individuals involved in the Jumoda study and we were therefore unable to take it into account. However, because this study was population-based and because of the care organization in France, which guarantees that each obstetrician of a center performed almost the same number of twin deliveries each year, individual expertise and involvement are unlikely to have altered the outcome. We did not modify the manuscript regarding this point raised by the Reviewer.

3. Results line 242-256 - these analyses by center expertise are only evaluating the top and bottom quartile, as per the authors' definition of expertise. It would be valuable for the reader if the authors were to describe the outcomes in the middle two quartiles, at centers which demonstrated equivalent expertise in the two methods of delivery.
We purposely defined expertise as belonging to the upper and lower quartile to present contrasted results. The table below shows the rate of internal versions, of cesareans for the second twin and primary outcome in the two middle quartiles.

	Expert in Internal Version (3rd quartile) N= 396	**Expert in Pushing** (2nd quartile) N= 128	***P***	
Internal version	108 (27,3)	18 (14.0)	.002	
Intertwin delivery interval (min, med, Q1-Q3)	7.5 [5-11]	9.0 [5-14]	.02	
Cesarean for the second twin	16 (4.0)	5 (3.9)	0.95	
			RR [95%CI]	**aRR [95%CI]***
Composite morbidity overall	16 (4.0)	5(3.9)	1.04 [0.4-2.9]	1.13[0.4-3.3]

As expected, because the contrast between the practices at delivery is less pronounced, no differences are seen in rates of cesarean for the second twin and in neonatal mortality and morbidity.
We let the editor decide if these data should be integrated as supplementary files.

4. In the discussion, the authors refer to the shorter intertwin delivery interval. The authors are to be applauded for acknowledging that this shortened difference is not likely to be of clinical significance, and the same for the cesarean rate.
We thank the Reviewer for his/her comment.

5. The authors discuss the potential causes of the differences noted between groups, but there is no mention of differences in fetal weight; it would be helpful to include analysis in which the difference in weight between the fetuses is accounted for, and whether the second twin is larger than the first. This is particularly of interest given that in the group with more experience with internal version the patients were more likely to be nulliparous.
We did not discuss the difference in fetal weight between groups for 2 reasons. First the rate of second twins larger than first twins was low in our study, less than 5%. Indeed, the other pregnancies with important weight differences in the JUMODA cohort might have been delivered by planned cesarean. Second these rates did not differ between groups. Consequently, it is very unlikely that differences in fetal weight could have impacted the primary outcome. Therefore, we did not modify the manuscript regarding this point raised by the Reviewer.

6. Discussion line 321-322 - the strength of the statement regarding risk of cesarean should be tempered, in light of the comments above (see #4).
Although lower rate of cesarean for the second was not associated with better neonatal outcomes, cesarean for the second twin are associated with worse maternal outcomes in the immediate postpartum period (Korb D, PLoS ONE, in press) but also for future pregnancies. Therefore, we believe that our statement is important information the reader has to keep in mind. We did not modify our statement.

REVIEWER #2:

1. line 94 please add units to the delivery intervals.
We included the limit of time as request by the Reviewer, line 94.

2. please define JUMODA as JUmeaux MODe d'Accouchement the first time this acronym is used.
We defined JUMODA as request by the Reviewer, line 81.

3. line 113: please change "lower blood gas" to lower pH unless you are referring to all components of the blood gas
We modified the sentence as requested by the Reviewer, line 114.

4. please define the JUMODA population. does this database include all pregnant women? all women presenting in labor? is data from all patients captured? if not what percent?
As reported in the flow chart the entire population of the Jumoda cohort comprised 8823 women. This is now stated in the results section line 217.

5. what was the average duration of time between the patients most recent ultrasound and admission for labor?
The median duration between most recent ultrasound and admission to labor was 2 weeks IQR (1-3). We did not add this information in the manuscript.

6. what percentage of women had uterine anomalies or fibroids? were these women excluded? do physicians in your cohort routinely include or exclude patients with such when considering IPV.
We do not have this information. We only know when a cesarean has been planned for fibroids but do not have this percentage in the population of women with a planned vaginal delivery because

small fibroids do not usually modify vaginal delivery management in our country. We did not modify the manuscript regarding this point raised by the Reviewer.

7. chorioamnionitis was not an exclusion criteria, but one that could affect your outcome variables. please comment.
Although chorioamnionitis could impact the outcome, it was not an exclusion criterion because it had no impact on delivery management. Chorioamnionitis was not even part of the questionnaire. We did not modify the manuscript regarding this point raised by the Reviewer.

8. is there an estimated fetal weight above which patients were excluded from IPV
The French guidelines do specify the threshold above which a cesarean has to be performed, due to the lack of strong evidences allowing such recommendations. The threshold depends on the center and practitioners. Similarly, there was no fetal weight above which patients were excluded from IPV. We did not modify the manuscript regarding this point raised by the Reviewer.

9. why weren't providers asked to complete the web based questionnaire about planned mode of delivery prior to delivery. by completing after delivery providers could have changed their responses to match the outcome.
This is a very good question. It would have been indeed preferable that the providers complete the questionnaire about the planned mode of delivery before delivery but we considered that the obstetricians would not adhere to the study if they were asked to connect twice on the research software. Our choice was therefore driven by feasibility considerations. However, they were asked if the planned mode of delivery had been changed and the reasons for such changes. We did not modify the manuscript regarding this point raised by the Reviewer.

10. what percentage of the questionnaires were completed and when (i.e.: time interval from delivery until completion).
25% of the questionnaires were completed immediately after delivery, 50% in the 48hours following delivery, 90% during the week following delivery. 10% were completed more than 1 week following delivery. We did not modify the manuscript regarding this point raised by the Reviewer.

11. placenta previa is listed in Table I . a total of four women with placenta previa were included in the study. please describe the indication for vaginal delivery in these women. were these marginal previa?
We did not collect for the study the distance between the internal os and the placenta. Of the four women with placenta previa in the planned vaginal group, none had been hospitalized for vaginal bleeding, 3 went in spontaneous labor and 1 had labor induced. We did not modify the manuscript regarding this point raised by the Reviewer.

12. 180: what characteristics of the women, pregnancies, labors and neonates?
We compared characteristics reported in Table 1 and 2. We do not believe it is useful to list all these variables in the text. We did not modify the manuscript regarding this point raised by the Reviewer.

13. are umbilical arterial cord gases obtained routinely on each baby?
Umbilical arterial cord gases are supposed to be obtained routinely for each baby but we expected high numbers of missing data, this is the reason why we chose not to collect this variable. We did not modify the manuscript regarding this point raised by the Reviewer.

14. please provide a reference for the statement line 199 "engaging...and therefore at lower risk of neonatal morbidity"
References are now provided as requested by the Reviewer, line 200.

15. please define "intention to verse"
An analysis according to intension to verse would comprise deliveries in breech presentation plus deliveries in cephalic presentation after failed internal podalic version versus deliveries in cephalic presentation plus deliveries in breech presentation after failed pushing efforts. In other words, we were unable to distinguish women who had immediate internal version to those who had internal version after failure of pushing. Unfortunately, because a part of the questionnaire was misunderstood we have been unable to perform such analysis. We feel the other Reviewers understood this concept that has been extensively discussed in the Methods and Discussion section; however we rephrased some part of the Methods section, lines 201 to 203.

16. lines 200-202 are confusing.
Lines 200 to 202 define the concept of intention to verse. Our primary analysis was performed according to the actual or final management of second twin delivery but not according to the first obstetrician intention. Indeed, some second twins in the pushing group were born in cephalic presentation after failed IPV and conversely neonates in the IPV group were born in breech presentation after failed pushing. We tried to clarify this paragraph by adding the presentation at birth in the sentence, lines 203 to 205.

17. line 200 what misunderstandings?
In case of cephalic second twin presentation after delivery of the first twin, the questionnaire comprised 3 questions:

1) What was your initial strategy of management?
a) Waiting for spontaneous descent
b) Internal version
c) Pushing efforts
d) External version

2) Did you modify your initial strategy?
a) No
b) Yes

3) If yes, what did you do?
a) Internal version
b) Pushing efforts
c) External version
d) Cesarean for the second twin

The first question has been misunderstood. Many obstetricians understood the question as a theoretical question and answered as if they were asked “what do you usually do in case of cephalic second twin?” and did not answer for the very precise woman they just delivered. We do not think it is necessary to add this information in the manuscript because they will be available on line as part of the OPT-IN process.

18. ideally its important to identify experts in internal podalic version, yet wouldn't all obstetricians be experts at pushing?
This might be true in the US but not in France. As explained in the introduction section, in some areas of France some obstetricians have been learnt to always perform an IPV when the second twin does not engage immediately. Consequently, these providers are really inexperienced in the management of cephalic second twin delivery with pushing. They are not used or even afraid to manage longer intertwine delivery intervals with possible abnormal fetal heart rate monitoring. We did not modify the manuscript regarding this point raised by the Reviewer.

19. How were obstetricians who fell into the second and third quartile ranked? were there deliveries included?
The obstetricians were not ranked, only the centers. We have no information regarding providers experience in IPV. All the deliveries were included in the primary analysis. In the secondary analysis according to center expertise, only center performing more than 50 twin deliveries per year and belonging to the upper and lower quartile for IPV were included. We did not modify the manuscript regarding this point raised by the Reviewer.

20. what is the distribution of the obstetricians experienced in IPV? could this have affected the outcome? i.e.: are more seasoned obstetricians also located at the medical centers where older women become pregnant after assisted repro technologies.
We do not have the information regarding the individual expertise in internal version of each of the providers involved in the Jumoda study and we were therefore unable to take it into account. However, because this study was population-based and because of the care organization in France which guarantees that each obstetrician of a center performed almost the same number of twin deliveries each year, individual expertise and involvement are unlikely to have altered the outcome. We did not modify the manuscript regarding this point raised by the Reviewer.

21. what were the indications for cesarean delivery? did gestational age affect the rate of cesarean delivery?
The indications of cesarean are reported in the Table below.

Indication for cesarean	Internal version (N=487) n=5 (1.0)	Pushing (N=1769) n=66 (3.7)
Bradycardia	1 (20.0)	8 (12.1)
Cord prolapse	0	6 (9.1)
Arm prolapse	0	1 (1.5)
Cervical retraction	1 (20.0)	10 (15.2)
Failed strategy (IPV or pushing)	3 (60.0)	37 (56.0)
Others	0	4 (6.1)

In the 2 groups the main indication for cesarean for the second twin was failure of the strategy of delivery, either IPV or pushing. Gestational age did not affect this rate. We did not modify the manuscript regarding this point raised by the Reviewer.

22. what was the rate of operative vaginal delivery in each group?
The rate of instrumental delivery was 30.5% in the pushing group and 2.1% in the IPV group. We added a line in table 2 reporting these data.

23. the last paragraph of the results section describes the outcomes of patients delivered by either pushing or IPV experts. this effectively excludes half of the patients. was there a comparison to the non expert groups? what is the purpose of this section?
Half of the patients were indeed excluded in the expert analysis because it compared only centers performing more than 50 twin deliveries per year and belonging to the upper and lower quartile for IPV. The purpose of this analysis was to control for the potential bias resulting from the absence of intention to verse analysis in our primary analysis. In this analysis according to center expertise, the rates of IPV are very different between groups and the differences observed in outcomes reflect the strategy of the center and not a selection of the “easiest” cases in the pushing group and the most “complicated” in the IPV group.

REVIEWER #3:

This is a prospective observational cohort study. It is a planned secondary analysis of the JUMODA conducted to assess the effect of planned mode of delivery on outcome in twins.
Very interesting topic as there is very little data in management of second twins and this is a relatively large cohort.

1. Would be interested to see as a supplemental the questionnaire that the physicians completed by phone.
The questionnaire the physicians had to complete on the internet has not been translated in English and comprised 25 pages. The 3 questions regarding cephalic second twin delivery are provided in response to reviewer 2 and will be available on line as we OPT IN.

2. Do you have the data to compare initial plan for delivery. In other words can you compare those that were initially told to push vs those who were never asked to push? A sort of intention to deliver cephalic
No, we don't and this is the very reason why we performed our secondary analysis according to center expertise. This point was already extensively discussed in the Discussion section lines 277 to 284. We did modify however the Methods section where we justify the analysis according to center expertise, line 201 to 203.

3. Can you expand in line 146, "always checked by vaginal examination" was ultrasound ever used, or was the a means to allow all sites, even those without ultrasound to participate
In France, performing an ultrasound after first twin delivery is not a recommended practice. It is even considered as a waste of time and less informative as having a hand into the uterus. However, we cannot exclude that some obstetricians in some maternity units might have feel more comfortable with an ultrasound machine nearby. We did not modify the manuscript regarding this point raised by the Reviewer.

4. Demographic or setting of hospitals that primarily managed their cephalic second twin with pushing vs version. Was one more likely an academic center or had trainees or in higher population risk centers?
The principal characteristics of the center according to their expertise are provided in the Table below.

Characteristics of the maternity units	Internal version (N=487)	Pushing (N=1769)	*P*
More than 100 twin deliveries/y	282(57.9)	543 (30.7)	.001
Level 1	7 (1.5)	39 (2.2)	.001
Level 2	119 (24.5)	791 (44.8)	
Level 3	361 (74.1)	938 (53.0)	
Universitary	287 (58.9)	692 (39.1)	.001

Internal version were more frequently performed in maternity units delivering more than 100 twins pregnancies each year, in level 3 and universitary centers. Therefore, centers performing IPV were the more experienced and these differences are very unlikely to explain the differences observed in neonatal outcomes. Therefore, we did not modify the manuscript regarding this point raised by the Reviewer.

STATISTICAL EDITOR'S COMMENTS:

1. Tables 3, 4: The main problem with the study is that it was under powered to evaluate the primary outcome. That outcome is relatively rare and this study has only ~ 44% power to discern the difference shown, given the sample sizes and proportions observed. Put in other ways, the samples would have to be at least 2x the present, even to demonstrate a 50% reduction in rate of primary composite neonatal outcome. In part, this can be inferred by the wide CIs shown for the RRs and aRRs.
We agree with the statistical Editor and its power concerns are now explicitly addressed, in the abstract lines 101 and 102, and in the discussion lines 308 to 314.

2. Additional issues (Table 1, lines 218-220) are that the cohorts were different and of course, that the groups were not randomly allocated.
We agree with the statistical Editor. It is inherent to the design of the study. However, none of these characteristics was associated with the decision to perform or not and IPV. Therefore, we decided not to adjust on these.

3. lines 236-241, 242-256: The subset analyses of ≥37 wks and that by hospital center expertise are even more under powered in terms of the primary outcome.
We agree with the statistical Editor and its power concerns are now explicitly addressed, in the abstract lines 101 and 102, and in the discussion lines 308 to 314.

4. line 250: The 95% CI should be [0.62-5.86], not [62-5.86].
The CI has been corrected as suggested.

ASSOCIATE EDITOR'S COMMENTS:

We are happy to consider a revision if it explicitly, from Precis on, addresses the power concerns of the Statistical Editor.
The power concerns are now explicitly addressed, in the abstract lines 101 and 102, and in the discussion lines 308 to 314.

EDITORIAL OFFICE COMMENTS:

1. 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.

2. 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.

I checked with my coauthors that the disclosures listed in their eCTA forms are correctly disclosed on the manuscript's title page.

3. All studies should follow the principles set forth in the Helsinki Declaration of 1975, as revised in 2013, and manuscripts should be approved by the necessary authority before submission. Applicable original research studies should be reviewed by an institutional review board (IRB) or ethics committee. This review should be documented in your cover letter as well in the Materials and Methods section, with an explanation if the study was considered exempt. If your research is based on a publicly available data set approved by your IRB for exemption, please provide documentation of this in your cover letter by submitting the URL of the IRB website outlining the exempt data sets or a letter from a representative of the IRB. In addition, insert a sentence in the Materials and Methods section stating that the study was approved or exempt from approval. In all cases, the complete name of the IRB should be provided in the manuscript.
All the IRB information is available in the cover letter and in the manuscript.

4. 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://clicktime.symantec.com/3QccKvCou8STj35KupZrHcp6H2?u=https%3A%2F%2Fwww.acog.org%2FAbout-ACOG%2FACOG-Departments%2FPatient-Safety-and-Quality-Improvement%2FreVITALize. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.
We accessed the revitalize definitions.

5. 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.
Our manuscript comprised 19 pages excluding references.

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

*** All financial support of the study must be acknowledged.**
*** Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.**
*** All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.**
*** If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).**
The rules governing acknowledgements have been followed.

7. Provide a short title of no more than 45 characters (40 characters for case reports), including spaces, for use as a running foot.

We provide a short title of no more than 45 characters.

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.
The abstract has been checked 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.
A word count is provided.

9. Only standard abbreviations and acronyms are allowed. A selected list is available online at https://clicktime.symantec.com/35HjfnXo6gtVBVv6eihJCMG6H2?u=http%3A%2F%2Fedmgr.ovid.com%2Fong%2Faccounts%2Fabbreviations.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.
Only standard abbreviations and acronyms are used.

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.
Not applicable

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.
Results are expressed as relative risks.

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.
Not applicable

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%").
The presentation of the results has been standardized.

12. We discourage claims of first reports since they are often difficult to prove. How do you know this is the first report? If this is based on a systematic search of the literature, that search should be described in the text (search engine, search terms, date range of search, and languages encompassed by the search). If on the other hand, it is not based on a systematic search but only on your level of awareness, it is not a claim we permit.
Not applicable

13. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here:

https://clicktime.symantec.com/3VVbVbxKH2nS52zYxNg9wKQ6H2?u=http%3A%2F%2Fedmgr.ovid.com%2Fong%2Faccounts%2Ftable_checklist.pdf.
The journal checklist has been reviewed.

14. The American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found via the Clinical Guidance & Publications page at https://clicktime.symantec.com/3YJ9cFmrNUMmTFHnVytWFfZ6H2?u=https%3A%2F%2Fwww.acog.org%2FClinical-Guidance-and-Publications%2FSearch-Clinical-Guidance.
Not applicable

15. 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 https://clicktime.symantec.com/3WQmMQJEf9Bio7LdffMfL6P6H2?u=http%3A%2F%2Flinks.lww.com%2FLWW-ES%2FA48. The cost for publishing an article as open access can be found at https://clicktime.symantec.com/3QfV1DFSiZPEkGGMXu1KRhR6H2?u=http%3A%2F%2Fedmgr.ovid.com%2Facd%2Faccounts%2Fifauth.htm.
Not applicable