Reviewer’s report

Title: D6 blastocyst transfer on day 6 in frozen-thawed cycles should be avoided: a retrospective cohort study

Version: 1 Date: 02 Jul 2020

Reviewer's report:

The revision improved the manuscript. However, I don’t know why the authors believed that considering "Day of blastocyst formation" and "Timing for blastocyst transfer" as independent factors is "more meaningful for guiding the clinic practice". On one hand, it did not meet the independence assumption of logistic models; on the other hand, one is less likely to transfer a day 5 embryo on day 6. In addition, "day of blastocyst formation" is removed from their model due to a step wise covariates selection process. Finally, it appeared that day 6 transfer was directly compared to day 5 transfer in Table 3. Such data did not support their original idea that transferring day 6 blastocysts on day 5 betters transferring day 6 blastocysts on day 6, because one could not tell the effect of "timing" and "delayed blastocyst formation". In fact, while delayed blastocyst formation may suggest a different develop competence, the authors should avoid its confounding in their manuscript as they aim to investigate the effect of "timing". To me, at any statistic stage of the study, day 6-on-day5 and day 6-on-day 6 should be directly compared. It is good to used day 5 on day 5 transfers as an external control, but it should not compromise the comparison of "timing". In my opinion, an "all-in" model may better serve the authors’ purpose than the step-wise model.

Specific
1) The total sample size of logistic models should be indicated in the Tables.
2) For some covariates, such as previous failure and number of embryos transferred, normal distribution is unlikely. The authors may consider them as categorized data.

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Yes

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
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Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

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