Reviewer’s report

Title: Assisted reproductive techniques with congenital hypogonadotropic hypogonadism patients: A systematic review and meta-analysis

Version: 5 Date: 31 Oct 2018

Reviewer: Andrew DWYER

Reviewer's report:

Gao and colleagues present a revised manuscript reporting results from a systematic review and meta-analysis of assisted reproductive techniques in patients with congenital hypogonadotropic hypogonadism (CHH). The authors have responded to the comments in the revised manuscript. Pending several edits for clarity and grammar, I believe this revised manuscript is suitable for publication in BMC Endocrine Disorders. Importantly, the authors did not respond to the remark regarding the sex discrepancy i.e. 475 women and 234 men. In fact, the response was erroneous but this is not reflected in the manuscript so I accept this as an oversight and not requiring further changes.

Suggestions for grammar and clarity:

Line 34: change "made" to "conducted"

Lines 48-50: change to "Regression indicates pregnancy rate decreases with increasing age"

Line 68: change to "1/10,000-86,000"

Line 69: these references are incorrect, as the data do not produce 3.6-1 ratio. The ration is from Dzemajl et al Endocrine connections 2017

Line 81-83: Change to "Alternate fertility inducing methods have been described for patients who do not respond to hormone replacement therapy (HRT) as HRT replaces lacking hormones rather than inducing ovulation or spermatogenesis"

Line 178: change "was recruited" to "were included"

Line 183: change "for male" to "in male patients"

Lines 188-191: redundant with previous section, delete

Line 191: change "of HRT was" to treatment regimens used"

Line 200: change "different gender" to "sex"
The fertilization rate (72%), implantation rate (36%) and live birth rate (51%) were not significantly different from other cohorts.

The fertilization rate (72%), implantation rate (36%) and live birth rate (51%) were not significantly different from other cohorts.

Are the methods appropriate and well described?
Yes

Does the work include the necessary controls?
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal