Reviewer's report

Title: Cryo-thawed embryo transfer: natural versus artificial cycle. A non-inferiority trial. (ANTARCTICA trial)

Version: 1 Date: 25 March 2012

Reviewer: Ariel Weissman

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Cryo-thawed embryo transfer: natural versus artificial cycle. A non-inferiority trial (ANTARCTICA trial).

1. Is the question posed original, important and well defined?
The question raised by the study is a very important clinical issue, and a RCT on this topic is extremely important and long awaited.

2. Are the data sound and well controlled?
Data are sound and well controlled.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?
Conclusions should be valid and might be adapted by the ART community.

Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?

Methods are appropriate and well described. One point which merits consideration: in the NC-FET arm, patients might ovulate before or without administration of hCG. According to the study protocol, these will be drop out. But this is not necessarily the case. If ovulation is well timed retrospectively, through serial blood tests and ultrasound scans, NC-FET can be carried out successfully (Weissman et al., Reprod Biomed Online. 2011 Oct;23(4):484-9). Furthermore, the use of hCG for triggering ovulation prior to NC-FET is controversial and this point should be discussed (Fatemi et al., Fertil Steril. 2010 Nov;94(6):2054-8).

4. What are the strengths and weaknesses of the methods?
Methods appear to be carefully built and are suitable for the aims of the study.

5. Can the writing, organization, tables and figures be improved?
No, it is well written and organized.

6. When revisions are requested.
Perhaps only regarding the remarks made above about spontaneous ovulation without hCG in NC-FET arm, as well as mentioning the debate on the use of hCG in this context.

7. Are there any ethical or competing interests issues you would like to raise?
No problems with ethics or conflicts of interest

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.