Reviewer's report

Title: Early nasogastric tube feeding in optimising treatment for hyperemesis gravidarum: the MOTHER randomised controlled trial (Maternal and Offspring outcomes after Treatment of HyperEmesis by Refeeding)

Version: 3 Date: 29 July 2014

Reviewer: Marlena Fejzo

Reviewer's report:

This study is intended to determine whether early enteral tube feeding in addition to standard of care is more effective than standard of care alone in treating HG and whether or not it improves outcome. The study is very important as currently treatments for HG are largely ineffective, resulting in increased risk of maternal and fetal morbidity.

Major Revisions:

A) The main issue with the study design is an existing problem: “standard of care,” for HG includes many different treatments and medication options which may lead to great variability in the study arms. The only ways around this issue that I can think of are to 1) use either no antiemetic treatment or 2) use no antiemetic treatment for the first week and then document any future need for antiemetic as an outcome measure, or 3) use a single treatment protocol/antiemetic in both arms, or if this is not possible, 4) to at least have very well defined record keeping that compares each treatment/antiemetic used, dosage, and duration AND to make sure to note any need for change or additional medications needed during the study period. The need for additional treatment/medication can and should be a secondary outcome measure of the study to show one arm works better than another. There needs to be a protocol to make sure accurate record keeping is kept even if new antiemetic prescriptions are given outside of the hospital setting to treat HG. I suggest you make a checklist of intravenous hydration, electrolyte supplement, vitamin supplement, medications, and treatments that may be given to the participant that they can fill out with their provider that includes daily dosage and duration/changes in treatment. The study may not be valid if the arms do not end up significantly well matched for which “standard of care” (ie initial treatment/medication), so you may want to re-investigate your sample size with that potential problem in mind.

B) The other issue is the inclusion of multiples. I would exclude multiples from participation in the study since maternal and fetal complications, weight gain and other outcomes between singleton and multiple births are not comparable. If by chance you end up with several multiples in one arm and few or none in the other, it can seriously skew the results.

Discretionary Revisions:
You may want to exclude patients with diabetes since it may be linked to an increased risk of complications such as infections from enteral feeding.

Please consider making sure to include statistics on intolerance to nasogastric tube and need for change to nasoduodenal or nasojejunal insertion as this information can also be a very informative outcome of the study.

Otherwise, the study is well-written with sufficient detail and I look forward to learning the results of the study.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests