Reviewer's report

Title: Public and private pregnancy care in Reggio Emilia Province: an observational study on appropriateness of care and delivery outcomes

Version: 2 Date: 16 December 2013

Reviewer: Amanda Ampt

Reviewer's report:

This paper has been significantly improved by edits the authors have made; however there are still issues that need to be addressed before publication. As the new version is easier to follow, areas that require attention have become more obvious.

MAJOR COMPULSORY REVISIONS

1/ I fail to understand why there is so much reporting of the differences between foreigners and Italians when this has not been specified or defined up front as an area for specific investigation – maybe it should actually be a stated aim? Confounding is not a problem following adjustment, but I get the impression the authors feel there is statistical interaction with this variable. If stratification needs to be undertaken, it should be reported as such in the methods. In addition, if stratification is necessary, the results would be better reported for mutually exclusive groups of foreigners and Italians.

2/ The terms physiological and pathological are never defined in the paper and need to be.

3/ The authors need to take more care when reporting probability and risk – see comments under results below – this confusion tends to run through the paper, and should be addressed it needs to be clearer when comparisons are made on the basis of unadjusted rates, or adjusted odds ratios.

4/ Outcomes definition – I am unsure what self-reported means for number of ultrasound scans – who reported them and where?

5/ A clear rationale for why you chose to use Robson groups is necessary – I agree they are a good choice, but to an audience who may unfamiliar with this classification, it is important to be explicit regarding their use in any analysis.

6/ Statistical analyses:
   • How were the demographics compared? ?chi squared analysis?
   • Need to report that you analysed some characteristics specifically for foreign women and why as there is emphasis on this in the first paragraph in results
   • Why was gestational age not included as a confounder in the model for cs outcome?
7/ Results

- Preterm birth is a negative perinatal outcome – statements contradict when you say that “newborn characteristics and negative perinatal outcomes did not differ” and then state “a significant difference was observed”

- It is very confusing when you start the paragraph with “newborn characteristics and negative perinatal outcomes did not differ… Table 2” and then go on to report adjusted odds ratios without reference to the model. Table 2 is the unadjusted rates, and then the text jumps to adjusted odds ratios for low birthweight (what do you define as low birthweight?), Apgar, intensive care and stillbirths. From the text I cannot deduce if you have modelled these outcome variables separately, or not. Surely there would be more confounders than your adjustments allow for (that is the main reason for using Robson’s classification). When reporting on Table 2, it is better not to report the adjORs in this paragraph - the assumption is that this paragraph is about Table2. The reporting of pregnancy length was in Table 1 and should not be reported in this paragraph.

- Table 3 – why is there no adjustment for pathological/physiological – surely this is a huge confounder?? It should either be a confounder in the model for all women, or else you should stratify the analysis to two separate models – physiological only, and pathological only. I think it is misleading to call it an adjusted result in the abstract when it is not adjusted for one of the main confounders that would lead to a caesarean or not.

- Table 4 – the adjusted ORs are not clearly aligned to the descriptions, Relative size of group better reported as “percentage of all women” and be place as a first column before cs/no cs columns

- You do not need to describe all the Robson classifications in the tex in the results section – just report results that deserve attention. The ORs reported in the text are adjusted ORs – again was there no adjustment for pathological/physiological?

- You need to take more care when reporting probability and risk – eg for Robson group 5

“Taking into account maternal characteristics in the comparison, a higher probability of CS in private care was confirmed, although not significant (OR: 1.56 95%CI:0.78-3.13). The real message here is that the probability of a cs among private was higher than public (91.0% vs 86.6%), but following adjustment the risk was not significant (OR=1.56 CIs 0.78-3.13).

- I don’t understand this statement:

Taking into account only physiological pregnancies it was possible to distinguish between women assisted by the public health clinics who were assisted only by a midwife and those who were assisted by a midwife and an obstetrician together. Why would a woman who was having a physiological pregnancy be cared for in the public clinic by an obstetrician as well as a midwife? This confusion might stem from a lack of definition of physiological and pathological
MINOR ESSENTIAL REVISIONS

1/ There are still some English edits that need to be undertaken – I have highlighted the main ones on the attached pdf. The word ‘foreigner’ is not routinely used in health reporting – I would suggest changing to “non-Italian”.

2/ I strongly suggest that there should be consistent reporting of public or private – best to simply refer to as public or private care as in the Tables. They are referred to in many different ways throughout the paper which becomes a little confusing eg
   o Public is also stated as
     # Family and reproductive health clinics
     # Public family clinics
     # Public service
     # Public health service
     # Public health clinics
     # Model of care involving both midwives and obstetricians
   o Private is also stated as
     # Obstetricians in private care
     # Private practice
     # Private obstetricians
     # Private model
     # Private care

3/ Typographical errors & minor corrections
   • ‘37,5%’ should be replaced by ‘37.5%’
   • Last paragraph under setting and description of intervention – antenatal care doesn’t stop

DISCRETIONARY REVISIONS

1/ The paragraph under data sources needs an introductory sentence
2/ State Robson classifies into m

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests