Reviewer's report

Title: Stillbirth classification in population-based data and role of fetal growth restriction: the example of RECODE

Version: 2 Date: 26 July 2013

Reviewer: Adrienne Gordon

Reviewer's report:

The authors have performed a retrospective analysis of a large population based registry with well collected information on stillbirths and have appropriately excluded elective pregnancy terminations. The numbers of stillbirths are sufficiently large to assess the impact of a revised classification system on which categories deaths are placed in.

Stillbirth is an important public health problem with inconsistent classification a major concern globally. An attempt to analyse the impact of a revised system that can link to ICD coding is a useful and topical exercise.

The statistical analysis that has been performed appears limited however the manuscript still has strengths in descriptive information.

The main results lie in table 2 which appears to have some major errors and would need checked and rewritten as a compulsory revision. The category A section numbers and % do not add up. To align with the % and what is written in the text it would seem that the recode R columns in "category A foetus" need corrected. I think the 199 (34.6%) should be 335 and the 105 (50.7%) should be 241.

Also within the text there are some % written without the n which donot add up when looking at the data in the table - page 8 paragraph 1 says "category A accounted for only 19%, including 11.9% congenital anomalies".Please check these percentages and perhaps also include the number as it written in the second paragraph.

Table 3 is explained in the text as showing no significant differences in the characteristics of reclassified SGA stillbirths. From the methods it seems only a chi-squared test was used yet in the table there is also comparison of contunuous data eg birth weight and gestation which would require a t-test or similar non-parametric if the data is not normally distributed. Also for some of the categorical data the differences look from raw data to be quite large eg maternal age and full term infants yet p-values are non-significant. This may simply be a type 2 error with small numbers in subgroups however may indicate the use of the chi squared for more than 2 groups. I would suggest redoing the stats for this table and as numbers are small either grouping each characteristic into dichotomous groups (eg women 35 or over and women < 35) if the authors wish to use chi-squared or else performing a logistic regression with a referent group
assigned for the categorical variables with several subgroups. In the event that on re-analysis there is still no significant difference it would be useful to have a sample size estimate where differences may become statistically important.

In the discussion it would be beneficial to place greater focus on the major impact of placental conditions within the revised system. Also the association of increased maternal age with placental failure and fetal growth restriction could be discussed further dependent upon what reanalysis for table 3 demonstrates.

there is no issue with the English - only a couple of typos - page 3 last para should read PSANZ-PDC, page 5 last para sentence 3 contained should be contain, page 9 2nd para line 2 stillbirth rate, line 5 NICE and RECODE probably the only one... would read better as...the only "systems"

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’