Reviewer’s report

Title: A high rate of histological chorioamnionitis is associated with rural and remote residence in the Northern Territory, Australia: A cross-sectional study.

Version: 2 Date: 20 June 2014

Reviewer: Wendy Hoy

Reviewer’s report:

This is a very important manuscript. The poor outcomes of pregnancy in remote-living Aboriginal Australians are well known, but the understanding of causes is poor. The report show high rates of chorioamnionitis in placentas of rural and remote women in the NT, which conceivably underlies some of the poor pregnancy outcomes. The update on birthweights, gestational age and other outcomes is also interesting and important.

This is an article of outstanding merit and interest in its field, and critical to health care providers and policy makers in the Northern Territory.

Major Compulsory Revisions:

• Relook at the Aboriginality vs nonAboriginality consideration. I do not think the data persuasively support a categorical statement that Aboriginality is not a risk factor, and would be wary of decisions that were made based on that assumption. There are only three deliveries of nonIndigenous women who live remotely, and only four in Aboriginal women who live in rural areas. I would retry analyses in a few ways that include metropolitan only, that include metropolitan vs and remote only, (two categories) and that include remote vs nonremote (ie rural and metropolitan). I am happy to look at the data in these ways to assist.

• Please explain a little more what the RRMA classification of rural vs remote, as they are used here for Top End NT, signify in terms of access to health services.

• To me, Figure 2 is somewhat confusing. The concept of the proportion of cases with a condition by ethnicity is not so easy to understand when the starting numbers of each ethnicity are not equal. Please rework this. In addition, did the total number of cases below the x axis label drop off the version we reviewed? I also find Fig 3 somewhat confusing, although the numbers in each group have been retained under the x axis. And I would drop the category of no inflammation, so as to emphasise the ones who had the condition of interest. Can both these figures be reworked for more clarity? The easiest way to understand the data are to show what proportion of nonIndigenous vs Indigenous placentas had these changes, rather than the percentages of people who had those changes by Indigenous status. Please clarify... .

Decisions: Accept with revision for the major point above. I would like to see the revised version.
Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I have no conflicts of interest in relation to this report