Reviewer's report

Title: A study of head and neck cancer treatment and survival among Indigenous and non-Indigenous people in Queensland, Australia, 1998 to 2004

Version: 1 Date: 10 June 2011

Reviewer: Alice Rumbold

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In this well written and clearly presented article, the authors present data on the prognosis for Indigenous Australians with head and neck cancers. The findings show, for the first time, that Indigenous people receive less treatment and experience a greater risk of death from head and neck cancer. There are several ways in which the paper could be strengthened which are discussed below.

Major Compulsory Revisions

1. In the discussion, the authors state that the reasons why Indigenous people are less likely to receive treatment are likely to be due a higher prevalence of co-morbidities. This statement doesn’t appear to be supported by the data as there was no significant difference in co-morbidity score and there was only a marginal increase in the number of Indigenous patients with a co-morbidity score #1 when compared with non-Indigenous patients (37% vs 33%), and the analyses were adjusted for co-morbidity score.

Suggested clarifications:

a. Include details in the methods section of the comorbid conditions considered
b. Remove the sentence in the first paragraph of page 10 “Indigenous patients were still more likely to have a co-morbidity score of one or greater”.

c. Comment in this section of discussion on whether all relevant co-morbidities were able to be identified in the medical records and whether there is appropriate power to examine differences by co-morbidity.

d. Include comment in this section of the discussion about other possible barriers to Indigenous people receiving treatment (e.g. need for relocation away from families to major cities, fear, perceptions of cancer, care inappropriate to the cultural context etc).

Minor Essential Revisions

1. Under statistical methods, rather than saying episodes of cancer treatment it would help to clarify the specific adjustments made so that it is consistent with what is reported in Table 3 e.g. any treatment, curative treatment and mode of treatment.

2. Where chi2 tests were used to examine differences between groups for variables with more than 2 categories the conclusions should only be regarding whether there is a difference between the groups in the variable overall, not
differences between individual rows. For example, the conclusions about mode of curative treatment should reflect that there is a difference between the mode of treatment in general between Indigenous patients and non-Indigenous patients but the significant p-value is only referring to differences in the categories overall not differences, for example, in surgery only. The results sections referring to variables with more than 2 categories should be amended to reflect this.

3. First paragraph of the discussion on page 10 states that Indigenous patients had less advanced disease, however there was no difference in stage at diagnosis between Indigenous and non-Indigenous patients, therefore this statement should be removed.

4. Include in the discussion a comment on the quality of Indigenous identification in the QLD cancer registry, has it ever been assessed, and whether this is likely to be a source of bias in this study.

5. Include comment in the discussion on the implications of this work for the delivery of health services for Indigenous people.

Discretionary Revisions
It might be worth commenting on the prevalence of smoking in each group.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests.