PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Inequalities in ventilation tube insertion procedures between Aboriginal and non-Aboriginal children in New South Wales, Australia: a data linkage study.
AUTHORS	Falster, Kathleen; Randall, Deborah; Banks, Emily; Eades, Sandra; Gunasekera, Hasantha; Reath, Jennifer; Jorm, Louisa

VERSION 1 - REVIEW

REVIEWER	Harvey Coates, Clinical Professor, School of Paediatrics and Child Health, University of Western Australia, Australia I have no competing interests with this study, but am a participant in an OME study (SEARCH) with two of the authors.
REVIEW RETURNED	01-Sep-2013

GENERAL COMMENTS	This is an important review addressing the possible reasons for disparity in ventilation tube insertion in Aboriginal and non-Aboriginal children.The results are consistent with current surgical practice and the large NHMRC study in Northern Australia of the effects of adenoidectomy with ventilation tube or myringotomy alone will add another level of complexity to this question. My only suggestion would have been to add comments regarding parent's acceptance of OM as the norm in remote Aboriginal families and consequently less treatment seeking behaviour.Perhaps the indications for ventilation tube insertion could be included, noting that ventilation tube insertion for rAOM is more stringent in non-Aboriginal children than Aboriginal children.

REVIEWER	Lous, Jørgen University of Southern Denmark, Research Unit of General Practice
REVIEW RETURNED	24-Sep-2013

GENERAL COMMENTS	Inequalities in the receipt of myringotomy and ventilation tube procedures between Aboriginal and non-Aboriginal children in New South Wales, Australia: a data linkage study. The study is important and interesting, and is well conducted. I have only a few problems/question to the paper. 1. Problems with the classification of Aboriginal. They used Aboriginal status at birth – and then made sensitivity analyses using

	two alternative definitions. As far as I read the text no result of this analyses is presented. How much does it differ? 2. How complete is the hospital register? That could be elaborated more. 3. As I understand myringotomy alone without insertion of ventilation tubes (VT) is not included – and when this is the case, myringotomy can be omitted from the text all over (I confused I in the beginning). You can not insert VT without doing myringotomy. 4. The need of the operation is mentioned, and can not be documented. That is OK. But the finding of only 3 to 4% of all children had VT at the age of 8 years is a low figure compared with finding in US and Europe. F.ex. the figure in some studies from Denmark have been up to 25% at the age of 7 years. This argumentation could be included. The coverage of ENT-physicians in New South Wales be an important factor for the operative activity. 5. The figure 3a and 3b. Was not clearly market as A and B with the same text. Conclusion: a well done study/paper with few small problems.

VERSION 1 – AUTHOR RESPONSE

In response to Professor Coates' suggestions, we have added the following to the revised manuscript:
1. A sentence regarding parental acceptance of otitis media as the norm in remote Aboriginal families and consequently less treatment seeking behaviour (see Discussion, page 19, paragraph 1).
2. A sentence noting that guidelines for ventilation tube insertion (VTI) are more stringent in non-Aboriginal children than in Aboriginal children (see Introduction, page 8, 2nd last paragraph).

Below are our responses to the comments/suggestions from Professor Lous.

Question 1. Problems with the classification of Aboriginal. They used Aboriginal status at birth – and then made sensitivity analyses using two alternative definitions. As far as I read the text no result of this analyses is presented. How much does it differ?

We provided crude procedure rates for the alternative definitions of Aboriginal status in the text in the Results section under the heading "Sensitivity analysis" (page 13) so the reader could see that these definitions increased Aboriginal enumeration (as hypothesized) and thereby reduced the magnitude of the inequality in procedures. We also referred to these findings in the Discussion (page 19). We did not include tables summarizing the results of our sensitivity analyses due to limitations on the numbers of tables/figures for publication. However, we can provide these tables at the editor's request.

Question 2. How complete is the hospital register? That could be elaborated more.

There is complete capture of all hospital separations from all hospitals and institutions listed under the

heading “Data Sources” on page 9 on the manuscript. These include almost all admitted patient services in the state, with the exception of those in developmental disability institutions and private nursing homes, neither of which should impact on estimates of VTI rates.

Question 3. As I understand myringotomy alone without insertion of ventilation tubes (VT) is not included – and when this is the case, myringotomy can be omitted from the text all over (I confused I in the beginning). You cannot insert VT without doing myringotomy.

We have removed all references to myringotomy from the manuscript and only referred to ventilation tube insertion (VTI) to avoid any confusion.

Question 4. The need of the operation is mentioned, and cannot be documented. That is OK. But the finding of only 3 to 4% of all children had VT at the age of 8 years is a low figure compared with finding in US and Europe. F.ex. the figure in some studies from Denmark have been up to 25% at the age of 7 years. This argumentation could be included. The coverage of ENT-physicians in New South Wales be an important factor for the operative activity.

We have added a couple of sentences to the Discussion (page 18, end of paragraph starting “A third factor…”) commenting on differences in the proportion of children who have had VTI in our cohort compared with estimates from other studies internationally. We agree that supply of ENT services is a likely contributor to these differences.

Question 5. The figure 3a and 3b. Was not clearly market as A and B with the same text.

Thank you for noting this; we have made changes accordingly (see attached PNG file labeled “Figure 3a-b). Please note that separate PNG files for parts (a) and (b) of this figure are available if the publisher prefers to use these (see original PNG files labeled “Figure 3a” and “Figure 3b”).