

Peer Review File

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Reviewer A:

General comment and recommendation:

A concise and well-written manuscript that is well referenced.

Other than [the two comments], I would be happy to see this accepted.

We thank the reviewer for these encouraging comments. Please find a detailed list of our revisions below.

Comment 1:

Not being familiar with the ethnic demographic in NZ, and perhaps more specifically in the district from which the data was extracted, I wonder whether the authors can include a brief mention of the Maori/non-Maori population distribution of the region either as an average of the period studied or statistics at the start and end of the period.

Reply 1:

We would like to thank the reviewer for raising such a valuable point. As per your suggestion, we have replaced our previous statement regarding the representation of Māori in this study cohort, with DHB-specific prevalence data from 2006 to 2016, as outlined below:

Changes in the text 1:

Discussion:

“Māori made up approximately 11% and 12% of the population of the Auckland region at the start and end of the study period, respectively, and thus are underrepresented in this study cohort (11).”

Comment 2:

While the articles on diabetes mellitus have been referenced, it would be easier if the prevalence of DM (Maori/non-Maori) could be mentioned in the discussion.

Reply 2:

We would like to thank the reviewer for raising such a valuable point regarding our patient cohort. We have included this additional analysis in our manuscript, as shown below:

Changes in the text 2:

Discussion:

“Lower rates of diabetes mellitus in Māori were also observed in this cohort, relative to the 10.3% prevalence of diabetes mellitus in Māori within the Auckland region (17). This is despite Māori having higher documented rates across all age groups nationwide (18,19).”

Reviewer B:

General comment and recommendation:

This manuscript is a retrospective study that investigates the differences in Maori and Non-Maori patients with peritonsillar abscess. They found significant differences in the clinical path of treating PTA between both groups. I have some questions on the reporting of the results:

We would like to thank the reviewer for their encouraging comments and have made the following revisions.

Comment 1:

In the methods, it is not clearly mentioned that this is a retrospective study.

Reply 1:

We thank the reviewer for their recommendation. We have added this information to our manuscript, as shown below:

Changes in the text 1:

Methods:

“Data were obtained for this retrospective study from the Auckland District Health Board (ADHB) Clinical Records Department following national ethics approval.”

Comment 2:

The authors describe they perform univariate analysis for potential factors that could explain the differences between the two study groups, however in the results and discussion this is not mentioned anymore. Could the authors add a statement about this univariate analysis and show the results.

Reply 2:

We would like to thank the reviewer for these comments. We have included this data in the results section accordingly.

Changes in the text 2:

Results:

“Univariate analysis identified no significant differences between Māori and non-Māori patients regarding 30-day readmission rates with associated complications ($p = 0.384$).”

Comment 3:

The demographic differences regarding smoking and asthma are only mentioned in the discussion but not in the result section.

Reply 3:

We would like to thank the reviewer for these comments. We have amended the results section accordingly.

Changes in the text 3:

Results:

“Higher rates of smoking (63.9%), recurrent tonsillitis (13.3%) and asthma (51.9%) were observed in Māori relative to non-Māori in this cohort ($p < 0.001$).”

Comment 4:

Do the authors have the results of the throat swabs which were used to detect GAS?

Reply 4:

We would like to thank the reviewer for raising this point. We have subsequently included this data in our manuscript, as shown below:

Changes in the text 4:

Discussion:

“Of the GAS swabs taken, 23.4% were positive, with no significant differences between Māori and non-Māori (p 0.687).”

Comment 5:

A second table including all the variables regarding the treatment of PTA would improve the reading of the manuscript.

Reply 5:

We would like to thank the reviewer for these comments. We have added an additional table to the results section accordingly.

Changes in the text 5: Results:

Table 2. Clinical and treatment variables of subjects in Auckland, New Zealand diagnosed with PTA from 2006 to 2016.

	Māori (n=158)	Non-Māori (n=1615)	p-value
Pre-Admission			
Mean duration of symptoms (days)	4.2 ± 0.3	5.1 ± 0.2	0.005
General practitioner appointment	35.2%	57.3%	<0.001
Antibiotic prescription	36.1%	43.5%	0.086
GAS throat swab	17.1%	8.2%	<0.001
During Admission			
Mean volume of pus aspirated (mL)	4.5 ± 0.4	3.7 ± 0.1	<0.001
Reopening of PTA cavity	15.2%	26.8%	0.001
Topical analgesia	48.1%	67.9%	<0.001
NSAID	74.1%	77.5%	0.411
Radiological investigation	12.7%	8.5%	0.160
Inpatient Bloods			
Mean white cell count (E+9/L)	15.6 ± 0.6	14.6 ± 0.2	0.003
Mean neutrophil (E+9/L)	12.3 ± 0.5	11.5 ± 0.2	0.006
Mean CRP (E+9/L)	107.9 ± 23.2	104.5 ± 5.7	0.788
Following Discharge			
Readmission within 30days	6.3%	16.4%	<0.001
Elective tonsillectomy	0%	16%	<0.001

†Significant values are in bold

Comment 6:

In the discussion, the authors state that Maori patients have more severe disease as determined by pus,

WBC and neutrophils, however, there is no significant difference in CRP.

Reply 6:

We acknowledge the above comment and would like to thank the reviewer for raising this point. This study identified significant differences in the mean volume of pus aspirated, WBC count and neutrophil count in Māori when compared to non-Māori. While there is no difference in CRP, the difference in WCC, neutrophils and most importantly pus indicates more severe disease. Perhaps not specifically more systemic disease, but as there is more pus one could say that the abscess is worse and therefore the disease is worse.