

Peer Review File

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Reviewer A:

The response rate of 29% for an email survey is fairly high. For such a common postoperative complication the variation in management between specialist and between states is interesting, although as the authors point out there is limited evidence to base such management on.

The authors report standard care pathways/guidelines in different parts of the country and it is perhaps an area in which the creation of state/national guidelines could be considered.

Reply: Thank you for your review of our article.

Reviewer B:

management both within Australia and globally. Non surgical options continue to evolve and the decision for surgical intervention is based both on patient factors and surgeon experience. This is the first national survey exploring the Australian management paradigm. Interestingly it describes the increase use of TXA within the otolaryngology community.

Abstract

Comment: Keywords: Post tonsillectomy haemorrhage - isn't a mesh heading. Suggest 2 words tonsillectomy and postoperative haemorrhage. Neither perhaps surprisingly is paediatric but child is. Survey is but bleed isn't. Suggest using mesh ondemand to check and choose keywords. <https://meshb.nlm.nih.gov/MeSHonDemand> . Using Mesh headings improves your paper chances of being found in a search once AJO is listed.

Reply: Thank you for identifying this. We have inserted a new list of 5 MeSH terms that have been checked on the above link:

- postoperative hemorrhage
- pediatrics
- adult
- surveys and questionnaires
- tonsillectomy

Changes in text: as above on lines 35-36

Methods:

Comment: Line 89-90 - Isn't a preliminary search of the literature just a routine part of research? If you mention it in methods more information is required in the results - what did you find? What search terms did you use etc?

Reply: We have clarified the search strategy used for both identification of relevant articles and the local guidelines.

Changes in text: Lines 93-99

- A preliminary search of the literature as well as local guidelines and protocols was conducted in April 2020. This search was used to identify a list of common investigation and management options for post tonsillectomy haemorrhage (appendix 1). Articles were identified through MEDLINE (PubMed) using the following search strategy: tonsillectomy[tw] AND (haemorrhage[tw] OR hemorrhage[tw] OR bleed[tw] OR bleeding[tw]). The search, 'post tonsillectomy haemorrhage protocol' was used to identify publically available local guidelines through the Grey literature (Google).

Comment: The search of local guidelines, likewise how was this done? Google search? Contacting heads of department? Who did you choose to contact? How many departments? And then this information needs to be presented in the results. If there wasn't a method to this then perhaps this is better included in the discussion eg personal communication or citing online sources etc.

Reply: Local guidelines were initially searched through the Grey literature as has been adjusted in the methods section. Following data collection we contacted the Otolaryngology team at the Queensland Children's Hospital to provide us with their protocol given the differences we noted in management of PTH between Queensland and the rest of the country.

Changes in text:

- Lines 98-99
 - o The search, 'post tonsillectomy haemorrhage protocol' was used to identify publically available local guidelines through the Grey literature (Google).
- Lines 247-252
 - o Following data collection we contacted the Queensland Children's Hospital Otolaryngology department for access to their PTH management protocol (G. Krishnan, personal communication, October 26, 2021). We found that their protocol recommends intravenous TXA for all patients presenting with a fresh post tonsillectomy haemorrhage. Higher use of TXA by respondents from Queensland in our study is consistent with this protocol. Similarly, increased utilisation of TXA in the Western Australian cohort was also reflected in the Perth Children's Hospital protocol

Comment: Line 108 - if the management options identified in the initial search were an important part of developing this survey then more information on that preliminary search is required.

Reply: Please see response above regarding initial search and survey development

Changes in text: Lines 93-99 as highlighted above

Results

Comment: As mentioned above there are no results on the preliminary search or the local guidelines.

Reply: Please see response above regarding initial search and survey development

Changes in text: Lines 93-99 as highlighted above

Comment: A reminder that tables should not have been formatted into the body of your paper, as per instructions to authors these should be at the end.

Reply: We have adjusted the formatting with tables moved to the end

Changes in text: See lines 390-394

Comment: Were any of the results statistically significant? There are no p values calculated. Is there a reason why this analysis wasn't done? Did the authors have assistance from a statistician?

Reply: Please see updated statistical analysis in results. In regards to statistical analysis, categorical data was analysed with the Chi square test and Fisher's exact test for n x m and 2 x 2 contingency tables respectively. Logistic regression was performed to assess the differences within multicategorical independent variables. Statistical analysis was performed using SPSS version 27 (IBM).

Changes in text: Lines 199-232

Comment: Because the raw numbers are not presented to the reader I can't comment on the accuracy of the results. Some tabulated form of the data needs to be provided.

Reply: A summary of responses to all three clinical scenarios has been added, see table 2

Changes in text:

- see table 2 on line 393

Comment: Line 131 - CBE - first time the abbreviation is used - please write in full.

Reply: We have adjusted this in the text

Changes in text: Lines 139-141

- The majority of respondents would take bloods on admission including Complete Blood Examination (CBE) (67%) and Group and Hold (48%).

Comment: Line 135 - given we don't know what the other options were the reader can't make a judgement on this themselves. Perhaps this should be presented in tabulated form?

Reply: A summary of responses to all three clinical scenarios has been added as table 2

Changes in text:

- see table 2 on line 393

Comment: Line 170 - interestingly shouldn't be used in results (results state results not authors opinion of those results)

Reply: We have adjusted the text as shown below

Changes in text: Lines 180-182

- In scenario one however we found that around one third of members (33%) would discharge patients over the age of six home from ED, whereas significantly less would do so for those aged less than six years old (13%).

Comment: Why is there no figure for scenario 3? It would seem useful to have all three.

Reply: The main differences noted in treatment decisions between consultants and registrars were in scenario 1 and 2. We have added a figure for scenario 3 for comparison to scenarios 1 and 2.

Changes in text: Figure 3 added, see line 385

Discussion

Comment: Lines 225-230 - Can TXA be both an area of variability but also a common treatment?

Reply: We have adjusted the wording of these statements as we agree that the use of TXA is increasing across Australia but there also is some variability in the frequency of the use of TXA at a subgroup level (eg. between states/level of training)

Changes in text: Lines 236-241

- There appears to be a common increase in the use of TXA across Australia but there was also variability between subgroups seen in decisions to prescribe antibiotics, suctioning of tonsillar fossa clots and use of TXA. Overall, common treatment options selected by the majority of respondents for any patient presenting with a post-tonsillectomy bleed included; IV access and bloods, IV fluids, antibiotics, hydrogen peroxide gargles and TXA.

Comment: Line 232 - multiple local protocols? I think you provide 2 qld and WA. These guidelines only cover a 1/3 of the responders. If other guidelines were used by the authors some sort of reference or acknowledgement of correspondence is required. If no other guidelines exist this is an area for discussion. Just from a quick google search I found guidelines for the Eye and Ear in Victoria.

Reply: We identified 3 publically available Australian protocols. When we identified a difference in the treatment between Queensland and the other states we sought to search for the Queensland post tonsillectomy haemorrhage protocol that was obtained by direct contact through their otolaryngology department.

Changes in text:

- Lines 241-242 Across Australia multiple publically available local protocols and guidelines exist for management of post-tonsillectomy haemorrhage(14-16)
- Lines 247-248 Following data collection we contacted the Queensland Children's Hospital Otolaryngology department for access to their PTH management protocol.

Comment: Line 28-286 - Yes national guidelines could be a goal but I don't think there are even statewide or even hospital guidelines in many centres which is an easier goal to work towards. What do you mean by less commonly used bedside treatment?

Reply: We agree that statewide and local guidelines would be a more obtainable goal and have adjusted this in the discussion. We have also adjusted the wording of bedside treatment to 'non-surgical management options' to reflect the surveyed management options which were less commonly selected.

Changes in text:

- Lines 304-306: The findings from our study can be used in future studies to develop statewide or national guidelines on the management of post-tonsillectomy haemorrhage.
- Lines 306-308: Ongoing research is required into the effectiveness of the less commonly utilized non-surgical management options to assess if their use can help to reduce the need to return to theatre for definitive management.

Comment: With regards to TXA it may be worth discussing that this is a relatively new tool in our management of PTH. Which might explain why registrars are more likely to prescribe than consultants. This is likely also reflected in the private consultants less likely to prescribe. Which raises the possibility of increase education to those outside the public sector, perhaps without the exposure to registrars and thus unaware of these management options. This recent article from perth describes their experience. Smith AL, Cornwall HL, Zhen E, Hinton-Bayre A, Herbert H, Vijayasekaran S. The therapeutic use of tranexamic acid reduces reintervention in paediatric secondary post-tonsillectomy bleeding. Australian Journal of Otolaryngology. 2020 Apr 10;3.

Reply: We agree with the reviewer that a potential explanation for the differences we have seen in our study was due to the increasingly recognized benefit on TXA in research on post-tonsillectomy bleeding. We have referenced 2 recent randomized controlled trials showing significant reduction in risk of death due to bleeding in patients treated with TXA versus placebo.

Changes in text: Lines 253-260

- Since its introduction in the 1960's, a growing body of literature has supported the use of TXA to assist in the management of major bleeding and PTH(17, 18). Two recent randomized controlled trials include WOMAN (2017) and CRASH-2 (2010) compared TXA versus placebo in post-partum haemorrhage and civilian trauma respectively. Both trials showed a significant reduction in the risk of death due to bleeding(19, 20). The increased awareness of TXA as an adjunct to the management of severe bleeding over the past decade may explain why registrars and doctors working in major hospitals may be more likely to utilise

this treatment than consultants and those working privately with less exposure trauma and life threatening bleeding.

References:

Comment: Looks like you have used the Harvard reference system rather than the requested Vancouver system.

Reply: The referencing style as recommended on the AJO guidelines has been downloaded into our endnote software and used to re-create all citations for the paper
Changes in text: Lines 322-383

Comment: The reference link from Perth childrens hospital is also no longer available. I found this link:

<https://pch.health.wa.gov.au/For-health-professionals/Emergency-Department-Guidelines/Post-tonsillectomy-haemorrhage>

Reply: As above all references have been changed to the Vancouver referencing style with the URL for the Perth Children's Hospital protocol below

Changes in text: Lines 365-368

- <https://pch.health.wa.gov.au/For-health-professionals/Emergency-Department-Guidelines/Post-tonsillectomy-haemorrhage>

Comment: The reference from Queensland Children's Hospital I don't think can be referenced. This source is not readily available to the reader as it is only published on the hospital intranet. From my reading on referencing such sources it would be a personal correspondence and not therefor referenced. Who did you contact to get access to this? It should be approved by the director of the unit (Dr Slee). You may want to check with the AJO editor regarding correct referencing. I found this page helpful:

<https://apastyle.apa.org/style-grammar-guidelines/citations/personal-communications>

Reply: We have made an in text reference to the personal communication with a member of the ENT team at that time.

Changes in text: Lines 247-249

- Following data collection we contacted the Queensland Children's Hospital Otolaryngology department for access to their PTH management protocol (G. Krishnan, personal communication, October 26, 2021).

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