

Peer Review File

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**Reviewer A**

Respectable authors, I read with interest your manuscript, but some concern arises just at the beginning, I mean from the title itself.

Regarding the "ventilation techniques" your manuscript deals mainly with jet ventilation, so that it should be more appropriately "jet ventilation for...". Furthermore, examples of application of jet ventilation in maxillofacial surgery are almost absent in your manuscript, with all the references regarding laryngo-tracheal surgery.

Finally, again, the "additional uses" subchapter is redundant and has some mistakes (for example EVONE ventilator does not allow "conventional" ventilation, if for "conventional" is intended VCV or PCV).

Honestly, I think your manuscript missed the point.

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Comment 1: Concern re title

Reply 1: agree

Changes in the text: We have amended the title to read 'Jet Ventilation for Maxillofacial and Laryngotracheal Anaesthesia: A Narrative Review'

Comment 2: Absence of jet ventilation references in maxillofacial surgery

Reply 2: agree

Changes in the text: citation and example added line 104-5

Comment 3: EVONE and conventional ventilation

Reply 3: EVONE uses controls inspiration and expiration flow from a set peak pressure using intratracheal <https://ventinovamedical.com/evone/>

Changes in the text: line 371 altered to reflect reply above, 'conventional' removed

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**Reviewer B**

Thank you for permitting me to review this manuscript

I think it is better to cite cervicofacial surgery instead of maxillofacial

Line 73 cervicofacial cancer pan endoscopies are also major indications in these context

Line 78 inhalational gas are not used when jet ventilation is used, total intravenous anesthesia is generally the technique indicated

objective should be more precise as apparently it is focused in cervicofacial surgery

Line 104 the ventury concept and the bernoulli effect is probably not as much as expected please define the real percentage of this effect, I think it is not more than 10 % of the effect

Table 1: please try to define a percentage for each effect

Please provide a picture of the sanders injector

Line 204 please provide a reference

Please enumerate possible indications of low frequency jet ventilation

Special focus on difficult intubation would be appropriate

I am not sure that the table 3 is necessary as it is a narrative review not a systematic

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Thank you for your comments.

Comment 1: Concern re title

Reply 1: agreed

Changes in the text: We have amended the title to read 'Jet Ventilation for Maxillofacial and Laryngotracheal Anaesthesia: A Narrative Review'

Comment 2: Cervico facial cancer pan endoscopies

Reply 2: Agreed

Changes in the text: Line 143 changed to reflect above

Comment 3: TIVA not inhalational

Reply 3: agreed

Changes in the text: 'Inhalational' removed

Comment 4: Venturi and Bernoulli effect

Reply 3: agreed

Changes in the text: Venturi effect removed, Bernoulli effect used to describe entrainment of oxygen line 154-158

Comment 5: Table 1

Reply: difficult to quantify in literature

Changes to the text: Table 1 removed and converted into text for ease of description

Comment 6: Sanders injector

Reply: agree

Changes in the text: See figure 3

Comment 7: indications for low frequency jet ventilation

Reply: agree

Changes in text: line 214 added in

Comment 8: difficult intubation

Reply: agreed

Changes in text: see new paragraph 283-291

Comment 9: Table 3 'methods'

Reply: following JOMA guidance this is required and has been left in

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## Reviewer C

Thank you for the invitation to review

This submission is a narrative review describing “ventilation techniques for maxillofacial anaesthesia”. The review is written clearly to a high standard of language. This review will be of interest to the non-specialist anaesthesia provider as an overview of jet ventilation in modern practice.

Overall I think the paper can be improved by more focus around your topic of interest. Much of the content does not obviously follow from the search strategy you describe: Although your title mentions ventilation techniques the paper is mainly limited to jet ventilation – e.g. there is only a passing mention to THRIVE. Although your title mentions maxillofacial anaesthesia you have included techniques used in other areas including ICU ventilation and ablation procedures. Similarly it is not entirely clear whether high frequency positive pressure ventilation is worth description in a paper aimed at maxillofacial anaesthesia.

If you consider limiting to jet ventilation I would suggest you restructure throughout to emphasise this (remove descriptions of HFOV etc). If you prefer to discuss alternative ventilation techniques for maxillofacial anaesthesia the paper will require major revision and a new search to add techniques not mentioned.

I have the following specific comments

Title: Please describe the content more carefully, jet ventilation seems to be the main focus

Line 66: Please clarify why HFOV is mentioned at all it is unrelated to jet ventilation or maxillofacial anaesthesia

Line 68: Please clarify the point you are making here. At the time of this survey jet ventilation was part of the difficult airway algorithm but this was removed in later DAS guidance (you may wish to mention this). Why should all departments offer jet ventilation unless they are ENT/OMFS centres?

Line 72: remove “consequently” this does not follow from the previous paragraph

Line 72: Please clarify this sentence. How does jet ventilation improve ease of intubation?

Line 75: “reducing” rather than “avoiding” the risk of airway fire

Line 76: humidification is possible with e.g. the Monsoon. Do you wish to mention risks (e.g. barotrauma) here?

Line 112: are there some words missing from row 1 of table “Direct injection of gas into”

Line 119: Please clarify the relevance of HFPPV to your review

Line 125: You describe HFOV despite statement in Line 66 that it is outside the scope of the review. How is this relevant to maxillofacial anaesthesia?

Line 138: Please reference this frequency 400/min seems high. You later (Table 2) describe 100-140.

Line 167: Please can you reference the statement that LFJV is not used electively. Which centre/country are you referring to

Line 178: again clarify the statement, e.g. which country

Line 260: High flow nasal oxygen may be used in combination with jet ventilation. THRIVE refers to a distinct apnoeic technique.

Line 275: Depending on your revised focus of the paper (i.e. jet ventilation vs maxillofacial anaesthesia) you could consider removing this paragraph.

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Thank you for your comments.

Comment 1: Restructure with reference to jet ventilation

Reply: agreed

Changes to text: the whole paper has been restructured, rewritten and references to HFOV removed to achieve this aim

Comment 2: title

Reply: agreed

Changes to text: title renamed as comment 1 reviewer 1

Comment 3: HNOV

Reply: agreed

Changes to text: HNOV removed

Comment 4: Jet ventilation in CICO

Reply agreed:

Changes to text: line 285, clarity re jet ventilation removal from DAS guidance and new paragraph re role of jet ventilation in difficult intubation

Comment 5: line 72 remove consequently and ease of intubation

Reply: agreed

Changes to text: 'consequently' and ease of jent ventilation removed from text

Comment 6: reducing" rather than "avoiding" the risk of airway fire

Reply: agreed

Changes to text: reducing the risk of airway fire' now in table 2 advantages/disadvantages

Comment 7: humidification is possible with e.g. the Monsoon. Do you wish to mention risks (e.g. barotrauma) here?

Reply: agreed

Changes to text: now in table 2 advantages/disadvantages

Comment 8: are there some words missing from row 1 of table "Direct injection of gas into"

Reply: agreed

Changes to text: paragraph rewritten 133-139

Comment 8: Please clarify the relevance of HFPPV to your review

Reply: agree

Changes to text: line 189 revised

Comment 9: You describe HFOV despite statement in Line 66 that it is outside the

scope of the review. How is this relevant to maxillofacial anaesthesia?

Reply: agree

Changes to text: removed

Comment 10: Please reference this frequency 400/min seems high. You later (Table 2) describe 100-140.

Reply: agree

Changes to text: typo revised line 194

Comment 11: Please can you reference the statement that LFJV is not used electively. Which centre/country are you referring to

Reply: agree

Changes to text: Lines 240-241 altered

Comment 12: High flow nasal oxygen may be used in combination with jet ventilation. THRIVE refers to a distinct apnoeic technique.

Reply: agree

Changes to text :Line 336-37

Comment 13: Depending on your revised focus of the paper (i.e. jet ventilation vs maxillofacial anaesthesia) you could consider removing this paragraph.

Reply: agree

Changes to text: re-written

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