Peer Review File

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Reviewer A

Comment 1: Recommend the authors to come up with suggestions specific to neonatal oxygenation in the Chinese population that would help in the advancement of neonatal care. What steps would they recommend addressing the various issues addressed in the article.
Reply 1: Thank you for the suggestion. We have added specific recommendation at the end of the manuscript.

Comment 2: The paragraph on ROP is interesting. Why is ROP seen in infants >32 weeks' gestation? Is it related to oxygenation or some other factors.
Reply 2: Thanks for your comment. We also think the ROP in the more mature preterm infants worth some attention, as we have found similar reports from other countries. We are not very sure of the etiology; however, we speculate that this could be related to improper respiratory management in the early postnatal life. We have modified the text in this paragraph (Lines 305-315)

Comment 3 :The article relates to oxygenation in the neonatal population in general. A little bit more of Chinese focus would help in coming up with solutions specific to the Chinese population.
Reply 3: Thank you for pointing this out. Since the studies and data with good quality that related to oxygenation of Chinese neonates are limited, it is difficult to find more data.

Comment 4: Too many details on tcPO2 monitoring. What is the relevance to a Chinese context? Cut short this section.
Reply 4: Thanks for your suggestion. We have deleted some contents in this section.

Reviewer B

Comment 1: Line 57, I like the fact you compared oxygen toxicity in the neonates as a drug effect as hyper oxide is real ruble in this population. Could you add from literature the incidence or prevalence from other studies on this effect of " drug toxicity"? It would be interesting if available.
Reply 1: Thank you for suggestions. It would have been interesting to explore this aspect. However, most of the studies about oxygen toxicity are animal studies. Although we have found meta-analysis reporting detrimental effects of liberal oxygen use in acutely ill adults, we feel these data are less relevant to the neonatal population and therefore did not include in this review.

Comment 2: Line 140 the ideal saturation may be expanded a bit on definition. I like you commented on Line 145 the difference between sea level and altitude as the

partial pressures of gases will be affected by altitude.
Reply 2: Thanks for your comments. An ideal saturation means the saturation range is not too high to cause oxygen toxicity and not too low to cause hypoxic injury. We have made it more clear on lines 140-141.

Comment 3: Line 166 , -171, Like the act you realized the limitation of the study and the need for a robust rials looking at the pre term population. Finding a way to provide the right amount of oxygen in a rural area without proper equipment is challenging.
Reply 3: Thanks for your comment.

Comment 4: Line 183 the use of CPAP, with lower Fio2, and the effects of peep, could be a way to reduce partial pressure of oxygen, avoid toxicity… Good point as it could be a tool for rural units where blenders or other equipment is limited. I think also looking at the effects of Peep ... may be interesting to comment.
Reply 4: Thanks for your comment. We have added a comment of CPAP and PEEP on improving VQ mismatch on lines 189-191.

Comment 5: Any role on proving? Lots of interest in the world literature on proving post covid, as a tool of hypoxic respiratory failure? if there is no data or studies, perhaps a line to comment would be of interest to other clinicians.
Reply 5: We assume the reviewer meant “Any role on proning?”. There are indeed some interesting data from adult and pediatric patients with ARDS, especially post COVID. However, data from neonates is limited and we have added a paragraph presenting some data from the neonatal population (lines 213-224).

Comment 6: Good paper, interesting topic as hypoxic respiratory failure has been in all channels due to covid. I think I would consider field approach in the user of CPAP, starting this therapy sooner as the effect of even small amounts of peep could make a difference while lowering partial pressures of oxygen to lower toxicity.

Reply 6: Yes. We agree with this. We have emphasized on the use of CPAP and PEEP on lines 189-191 and also in the added recommendations at the end of the manuscript.

Reviewer C
The manuscript by Sun, Rong and Zhang is excellent indeed.

Comment 1: At line 362 the abbreviation HOT is applied (Home oxygen therapy). The authors should define.
Reply 1: Thank you for your kind reminder. We did not make change here since HOT was already defined in the previous sentence (on line 389).

Comment 2: Line 390: HgA. I believe the authors mean hemoglobin or hemoglobin A

Reply2: Thank you for pointing this out. We have changed to “hemoglobin A”.

Comment 3: Line 444. monitoring the Chinese NICUs. I think an "in" is missing: in the Chinese NICUs
Reply 2: Yes, we have added the missing “in”.