Author's response to reviews

Title: Veno-venous ECMO: a synopsis of nine key potential challenges, considerations, and controversies

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Author's response to reviews: see over
Response to Reviewers

To the Editor:

Thank you very much for giving us the extended deadline for our manuscript. Several significant changes have occurred in this manuscript. We would like to thank the reviewers for their suggestions and guidance. These suggestions have enhanced the manuscript. We have modified the title, added one author, we are now over 5000 words in order to make the reviewer requested changes, and the references have been substantially increased to 88.

We hope we have satisfied the reviewers, in light of the fact that each viewed our work quite differently. Reviewer 1 suggested only discretionary revisions, while reviewer 2 requested 12 compulsory revisions.

Response to the reviewers

Reviewer 1

This reviewer had only discretionary changes. All of reviewer 1’s discretionary changes have been made in the appropriate sections requested.

Reviewer 2

This reviewer gave us 12 major revisions to attend:

1. Grammar and syntax have improved. The paper has been extensively rewritten; primarily by two of the authors ---this increased the number of words and increased the number of references (Initially we did allow two young gentlemen in training to write the article in order to gain education and experience).
2. The background section contained information that belonged in Challenge 5, and this was struck from the background/introduction.
3. The reviewer claims challenge 1 is not a controversy. We believe it is the controversy. If you look at various major institutions around the country/world, all of them have differing opinions and guidelines on who get ECMO. Nothing is written in stone. We have never denied a pregnant mother who is in extremis ECMO, regardless of guidelines (more to come to print in the future). We added other guideline references from Adelaide Hospital, Australia and The Ohio State University.
4. Challenge two. We move paragraphs around as requested. Our emphasis on single cannula use is that our ECMO patients recovering from ARDS due to whatever cause walk and ride bicycles while on ECMO (more to come to print in the future).
5. In Challenge three we have added a small discussion of other pump options.
6. Challenge four cannot be deleted because it is of prime importance to anybody on the forefront of ECMO today. We have added references and comments. Pediatric hospitals and the military are involved in complicated evacuations with patients on ECMO. The Maquet pump is the primary medical evacuation pump used. Therefore, it use was primarily mentioned. Others are now mentioned.

7. Challenge five has been attended to as requested. We do not address sedation to a great extent because its use and application is so variable in ECMO. Some patients are obtunded, some are not, but is should be used in all paralyzed patients.

8. We have added little to Challenge six, except to briefly mention the cost and lack of reversal agents for direct thrombin inhibitors.

9. In challenge seven we differentiated bridge to lung transplant from ARDS.

10. We did not remove challenge eight because there are three French papers that are at the forefront of challenging and changing what we do with paralysis. A very recently published meta-analysis supports this view and is referenced.

11. We agree challenge nine could have been much better and is so now with appropriate and increased numbers of references.

12. The discussion is now extensively referenced.