

Reviewer 1 v.1

Comments to the Author

This retrospective analysis looks to identify factors associated with LRTI as a complication of flu-related ARDS. I have several concerns.

1. The methods section should most clearly show the primary endpoint.
2. How were disagreements amongst the 2 reviewers as to the presence of a NLRTI resolved? What info did they review to determine if the pt developed NLRTI.
3. How were cultures obtained to determine if an NLRTI evolved (eg sputum, trach aspirate, bronch etc)?
4. The model needs to include a variable for center effect to look for interactions based on the one of the 8 hospitals that contributed pts.
5. The model needs a goodness of fit test.
6. How was co-linearity addressed?
7. The authors need to address the immortal time bias issue -- for example pts on ECMO likely were on it for some time and hence observed for a longer period of time and thus this confounds the analysis. The authors have KM curves and time to event so the more appropriate model would be a Cox proportional hazard model.
8. Similarly, the crude outcomes should be reported as adjusted to removed from the paper. Also, is the LOS that from time of flu and ARDS? Is it adjusted for pre-ARDS time of hospitalization?
9. The limitations section of the discussion needs to be expanded upon significantly