Reviewer's report

Title: Epidemiological characteristics, clinical manifestations, and treatment outcome of 139 pediatric Ebola patients treated at a Sierra Leone Ebola Treatment Center

Version: 1 Date: 19 Nov 2018

Reviewer: Hermans Veerle

Reviewer's report:

Dear author(s),

First of all, thank you very much for discussing more on an important aspect of this devastating Ebola crisis, pediatric cases in Sierra Leone. It is very important that these findings are shared with the greater public so appropriate actions can be taken in next EVD outbreaks and settings (as in DRC at the moment) to make the response more appropriate towards paediatric patients as they are especially vulnerable.

I read the paper with great interest and hope my recommendations below can help to make the manuscript ready for publication. Please find below my detailed comments.

BACKGROUND

Line 61: It's rather Democratic Republic of the Congo

Line 62: the method of referencing is different, in line 61 you use 1-3, then in line 62 (1,4). Try to be consistent throughout the paper.

Line 67: why specify only bats, chimpanzees and gorillas? It is expected that bushmeat in general can carry the virus. The bats are considered the vector but other animals such as chimpanzees and gorillas, but also antelopes, forest pigs etc might be infectious when eating and/or processing meat.

Line 79-124: It's a good overview of what is known in the literature, but it seems too long and jumping from CFRs from Uganda back to West Africa and in all age categories. Can this be rewritten in a more structural way? What would you need for this article, what is important to make your point with your research? If the limitations are mainly the small sample sizes, then highlight this as in your research this is a big asset.
Line 125: There are several experimental treatments ongoing in the current outbreak in Eastern DRC + ring vaccination ongoing. You might want to add this in your background and reference to it (a lot of information on WHO website).

Line 134: "using a large data set"

Line 135: I miss a bit the operational reason why this retrospective analysis would give added value to future outbreaks. What can be implemented using your results? Is it the aim to change case definitions, then definitely mention it here already.

METHODS

Line 152: typo "Stage one EVD is , also known as the dry or early phase, is characterized"

Line 153: same for Stage two

Line 157: specify where Lakkah exactly is situated

Line 162: where routine malaria RDTs performed on paediatric patients? Might be interesting to mention if a treatment was given anyway

Line 167: you jump immediately to ethics review but I miss a section on setting: general and specific. A bit more information on Sierra Leone, Freetown (health structures, how were the referrals done in the outbreak, where there any other ETCs + more information about the military hospital, who was in charge, how many staff, how many beds, capacity, etc)

Line 187: who anonymized the data? Was this done by the researchers and how was secure storage of the data ensured?

Line 264: typo "There were differences in the likelihood of a pediatric EVD patient will dying ie during EVD treatment as a result of gender difference"

DISCUSSION

You mention in the results (line 229) a significant difference in educational background of children and CFR. This doesn't come back in the discussion. What does it mean?

Line 288: male instead of men
Line 295: it can indeed be expected that CFRs for very young and older patients are higher, as shown in different studies already. But always interesting to mention why (as you did for the difference in gender)

Line 297: I wouldn't use too much statistics and numbers in the discussion, it doesn't read very well and it's clearer if you make a general comparison with your study, not exact numbers because the methodology and case definitions might be different anyway

Line 310: again, this is repetition of the results.

ACKNOWLEDGEMENTS

Line 410: always nice to mention the patients who suffered the most during this horrendous outbreak.

REFERENCES

Differences in fonts and editing make sure it is consistent for all references

TABLES AND FIGURES

Possible to have one of the tables as a figure? It reads better than a long table with numbers.

Table 1: title - add location, time, repeat what 'pediatric' means (a table needs to be able to stand alone)

Table 2: idem - add location, time

Table 3: idem (+ error in repetition of the title)

Figures: I couldn't see the figures in this document? But always good to have a map, however, are the other ETCs in the area presented as well?

Thank you for considering these recommendations and good luck!
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

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