Reviewer’s report

Title: Ebola haemorrhagic fever outbreak in Masindi District, Uganda

Version: 1 Date: 20 March 2011

Reviewer: Francesco Maria Fusco

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Major Compulsory Revisions:

1- Add the study design in the title: “Ebola Hemorrhagic Fever in Masindi district, Uganda: description of an outbreak”

2- In the abstract, methods are not well described. You should refer to the article methods only, and not to the outbreak management methods. Who led the outbreak response in Uganda is a wrong and useless information, here. The last sentence of the paragraph is ok. Try to enlarge it, adding some part on statistical analysis, or simply delete the first part

3- Please clearly write your objective at the end of introduction section. You only say “This paper focuses on…”. It is not sufficient. You should identify the study design and the objectives. You may move here the section “Objectives of the study”, which is currently in the methods, without the final sentence on statistical analysis.

4- The section “Methods” should be substantially revised. Indeed, in your version, methods and results are mixed. In general, the most of required “methods” data are included, but also many results are included in this section. In general, you do some confusion between the article methods (study design, setting, description of study population, observation period, case definitions used, data collection methods, diagnostic methods, and statistical analysis) that should be included here, and outbreak management methods (co-ordination of the response, active surveillance, case management and public mobilization, using your titles), that should be moved in the results. Please refer to STROBE guidelines, in order to re-organize your methods section appropriately.

5- Some more specific comments about methods, not considering if these parts should be moved elsewhere or not:

a. In the paragraph “method, outbreak response, coordination”, lines 7-10. Daily meeting also have some human and time costs: they are time consuming, and deflect from other duties and activities. Please address with a brief comment this problem.

b. In the paragraph “active surveillance” it is not clear how the alerts arrive to the mobile teams. Given that the confirmed outbreak is limited within a limited area and within the “index family”, on what it is based the active surveillance of other possible cases? You said that alerts were recorded in a “rumour registry”, and these alerts were responded to mobile surveillance teams: which is the origin of the rumors? Who collected them?
c. In the paragraph “case management”, in the part about PPE, please clarify if a defined sequence for donning and removal of PPE is suggested. Remember that, during outbreaks of Highly Infectious Diseases such as Ebola and SARS, not appropriate removal of contaminated PPE has been suggested to be linked with disease transmission to HCWs.

6- In the section “Results. Performance of surveillance activities” you did an interesting discussion about the efficiency of your case-definitions. This discussion is partially impaired by a limit: these case definitions, at least in Masindi, were not tested in a real epidemic situation. In facts, all detected cases have been identified within the index family. This situation surely contribute to make case finding efficacious, because it brings to a better awareness of physicians and researchers for suggestive symptoms. Please clearly declare this limit and add a sentence about this peculiar situation.

7- In the same section, you also speak about reasons for delay in hospitalization. You said that extreme delays occurred among HCWs only, and not among index family members. Then you said that causes for prolonged delays included (1) missed daily visits by the surveillance teams, (2) insufficient transport capacity, and (3) lack of cooperation by the individuals being followed-up, i.e. refusal to report symptoms or be taken to the hospital, as a result of fear or mistrust of the response team. These reasons seems to be applicable to community cases (especially the reasons 1 and 3), while it is hard to imagine these reasons for HCWs, that should not been included in daily visits, and should not be affected by mistrust of the response team. Please clarify this apparent contradiction.

8- Section “Challenges in the health system”, last sentence. Sorry, but I didn’t understand this sentence. Please rephrase it.

9- Table 2. Please clarify which is the origin of data about symptoms. You said that clinical records have been lost, or destroyed. So, how can you have such detailed data?

Minor Essential Revisions

1- Abstract, result paragraph, last sentence: I suppose it is “at the beginning”, and not “and the beginning”

2- Abstract, conclusion. You use the acronym HWs for the first time, please develop it. Moreover, why do not you use HCWs (health-care workers)?, which is widely used, and more easy to understand by readers? If you prefer to use HWs for some specific reason, please explain me (not in the article, but on separate comments)

3- In the section “Results. Course of the epidemic”, 4th paragraph, line 3, please move (n=23) at the beginning of the sentence, just after “All”.

4- Section “Results. Case fatality”, first paragraph, line 5. Please delete the first (or the second) “were”

5- In the section “conclusion”, the last paragraph is not useful, according to me. This article is not focused on medical management of Ebola cases, such a conclusion about therapeutic approach and supportive therapy is misleading.
6- Table 3. Why did you report some p only? Please report all, or only significant ones.

7- Figure 2. This figure is unclear for me. Which are the doors? Is there a way-in and way-out pathways? Please modify it.

Discretionary Revisions: the article is interesting, but very long. Try to shorten it as more as possible. Another general, personal comment, that is the most important. You had the unique opportunity to observe an Ebola outbreak in a sort of “semi-experimental” situation: limited population, no contacts with other persons, limited environment. I think that specific data about social and cultural behaviors more at risk for Ebola transmission could be very interesting. You only said that giving care to sick persons, and having food together were linked with transmission, but you did not sufficiently develop this point. Did you identify some specific risk behavior? Such as taking food from the same plat, or kissing, or sleeping together, or some other everyday activities, or cultural-specific actions? If yes, please add a discussion about these points in the article, it may add a great interest to the article.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests