Author’s response to reviews

Title: Investigation of a cross-border case of Lassa fever in West Africa

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Author’s response to reviews:

Dear Editor,

Thanks for the opportunity to revise this paper. Our responses to the comments are below, prefixed by ***.

Answer to the Reviewers
Elodie Calvez (Reviewer 1): General comment
The manuscript is relatively well written, and the investigation results are interesting. The background part must be improved. However, this case report is well described and highlighted the necessity to increase the communication between health authorities to prevent future outbreak especially in West Africa.

Specific comment
Abstract:
Lines 41-43: Please rewrite this sentence is confusing.
***We deleted this sentence, as it does not refer to the case we investigated.
Line 43: delete one "by" before "reverse transcription …".
***See below
Line 49: change specimen by sample.
***Done (Line 48).
Lines 50-51: Please rewrite as "WHO Country Office for Guinea and for Liberia".
***Done
Line 50-51: The Guinean MoH was officially informed by WHO Country Office for Guinea and for Liberia.

Background:
Lines 73-77: this part must be rewrite as:
Line 72 - asymptomatic (Line 76-77) - diagnostic difficulty (Line74-76) - Fatality rate (Line 73-74)
***thank you, done. Here the revised version.
Lines 63-68: Lassa virus (LASV) is a single stranded RNA virus of the Arenaviridae family (7) that causes Lassa fever. The literature reports that 80% of Lassa fever cases can remain asymptomatic especially in an endemic area (8). Lassa fever can sometimes manifest as a viral hemorrhagic fever, and it is difficult to recognize and detect rapidly. No vaccine treatment is available (9); ribavirin is the antiviral treatment of choice and it is reasonably effective if given early on in the course of clinical illness. Lassa fever has a case fatality rate up to 70% when left untreated (10).

Line 79: Please add a reference after "… is increasing."
***Done (Line 69-70).
Line 82: Please add a reference after "… positive by RT-PCR."
***Done (Line 73)
Line 83-85: Please rewrite this part.
***Thank you, done.
Lines 74-77: This case report describes an investigation of a patient with laboratory confirmed Lassa fever. This cross-border investigation was a successful example of cooperation between two West African countries, within the framework of Integrated Diseases Surveillance and Response (IDSR) and IHR, successfully implemented in the field.

Case presentation:
This part is interesting and relatively well written. I would like to know if authors could add a map to illustrate their purpose, that could be useful.
***Thanks for the suggestion. We were unable to have a resolution high enough to make the map worth, so we did not add it.
Line 88: Is it the good year? If yes, this part is confusing.
Discussion:
Line 126-135: Why did authors focus this investigation around the hospital 2 and nothing around hospital 1 and 3?
***This was not done only for hospital 2. Here the new sentence:
Lines 118-119: Medical records were checked for any abnormal increase in reported febrile illness in health care facilities within 5 km to the hospitals visited by the patient.

Lines 136-141: Please describe more.
***We changed the paragraph and added one reference
Lines 137-139: For this investigation, sequencing data were not available. These would have proven helpful for understanding the source transmission and subsequent transmission patterns (20). Our investigation could therefore not conclude if the exposure occurred in Guinea or Liberia.

Lines 122-124: The seroprevalence of antibodies for Lassa virus in the local population is estimated to be 13% (16, 17). While in Liberia outbreaks of Lassa fever are declared regularly, no outbreak has been reported in the last decade in Guinea (18).
Lines 150-154: Please describe more with previous studies.
***This paragraph was too general, we therefore deleted it.

Lines 164-167: Please modulate this part.
***We deleted this paragraph

Figures:
Please homogenize the figures. Authors must prepare the figure 1 as the figure 2.
***Done

George Chukwuma, Ph.D (Reviewer 2):
Title change, title to read Investigation of a cross border case of Lassa fever in West Africa.
***Done

Abstract
a. Use of English is very poor
***We did substantial changes in the abstract
b. Abstract is poorly written
***See above
c. Lassa fever not well introduced in the abstract background
***We added a sentence on Lassa fever.
Lines 40-42: Epidemic-prone Lassa fever, caused by Lassa virus, is an endemic disease in the West African countries of Ghana, Guinea, Mali, Benin, Liberia, Sierra Leone, Togo and Nigeria. It’s one of the major public health threats in these countries.

Case presentation
a. Use of English is very poor
***We did our best to improve it and we asked to carefully check for grammatical mistakes by one of the authors who is fluent in English.

b. Case presentation not properly organized
***We restructured it. We used the real timeframe, explaining first the investigation after notification
was received, and then the retrospective information on the clinical itinerary of the case that the investigation shed light onto.

c. Ethics approval was not obtained for this study
***This was an investigation that, we believe, falls into public health practice, and we had no signed consent from the patient because the patient deceased.

d. Multiple paragraphing, reduce the number of paragraphs
***We did substantial modifications in the discussion and throughout the manuscript to avoid repeating redundant information.