Author’s response to reviews

Title: Human rabies post exposure prophylaxis at the Pasteur Institute of Dakar, Senegal: trends and risk factors

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Review INFD-D-17-01079: Human rabies post exposure prophylaxis at the Pasteur Institute of Dakar, Senegal: trends and risk factors

Editor-in-Chief
Dr. Cecilia Devoto
BMC Infectious Diseases

December 1, 2018

Dear Editor-in-Chief,

Thank you for the consideration you have given to our manuscript “Human rabies post exposure prophylaxis at the Pasteur Institute of Dakar, Senegal: trends and risk factors”.
We would also like to extend our thanks to the reviewers for their comments, which have allowed us to construct a more thorough and complete manuscript. Please find below the attached reviewer comments and our detailed responses, which have been highlighted in blue colour.

We look forward to future correspondence regarding our resubmission and are more than happy to provide further information on any questions or comments you may have.

Sincerely,

Emmanuelle Espié, on behalf of the co-authors

Email: emmanuelle.espie@gmail.com

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Technical Comments:

1) Please move the keywords to after the abstract.

The keywords were moved after the abstract

2) On uploading your revisions, please remove any tracked changes or highlighting and include only a single clean copy of the manuscript.

Only a clean version of the final manuscript is upload. A tracked version is available on request.
Editor Comments (on behalf of AE Sabeta):

1) Please address in greater detail the concerns raised by reviewer 1 (below):

"Line 224 and Table 4: The authors say that high distance between patients' house and Pasteur Institute of Dakar (≥ 2 hours) was a risk factor for a partial PEP. However, it is incorrect. Those living at ≥ 2 hours from the institute were LESS likely to get a partial PEP. The results are unintuitive. Please double check and discuss the results in the discussion section."

The univariate statistical analysis was performed with an additional sensitive analysis where the subjects related to a cluster have been excluded. The results of the sensitive analysis showed that being part of a cluster (i.e. 32 persons exposed to confirmed rabies) is a confounding factor. Therefore, for the univariate analysis, the authors have decided to present the results of the sensitive analysis. The results section has been adapted and the Table 4, updated.

For the multivariate analysis, after adjustment, the results are quite similar:

• Sensitive multivariate analysis:

  low level of education (AOR, 1.48; 95%CI [1.11-1.96])

  absence of RIG administration at D0 (AOR, 3.06; 95%CI [1.59-5.89])

2) Reviewer 1' raised a concern on the types of exposure, stating:

"The table results suggest that those with only scratches or simple contact/licking were LESS likely to get a partial PEP (i.e. were more likely to get a full course of PEP). Again the results are unintuitive. Please double check and discuss the possible reasons."
Your response was:

"One of the reasons that might explain that patients with only scratches or simple contact/licking were less likely to get a partial PEP (in the univariate analysis), is probably related to the fact that most of the patients with scratches or licking who received a full schedule of PEP are the ones for whom a rabies exposure was confirmed by lab testing. Thus, among these 79 patients, 30 (38%) were related to the cluster of January 2014."

One of the possible reasons is that if rabies is excluded through lab testing then PEP is discontinued.

As mentioned previously and in the answer provided during the previous review, the authors though that being part of a cluster might be a confounder. Therefore, a sensitive univariate statistical analysis was performed to explore this potential confounder. Based on the results difference between the main and sensitive analysis, the authors decided to present the sensitive univariate analysis and the Table 4 has been modified.