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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Author’s response to reviews:

Dear Dr Devoto,

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 yours,

Emmanuelle Espié, on behalf of all the co-authors

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Editor Comments (on behalf of AE Sabeta):

i. Abstract – the authors talk of 905 patients and of these, 67% being males (what about females?) If 67% of the 905 patients were male, 33% were female, as the gender has been recorded for all patients.

ii. PEP in Senegal (place a period). The PEP started in 1963 and was defined by an agreement between the Pasteur Institute and the Ministry of Health (Convention of the 20th of May 1963, and Law N°1977/105 of the 26th of December 1977, available at: http://www.dri.gouv.sn/sites/default/files/an-documents/LOI%20N%201977%20105%20DU%2026%20DECEMBRE%201977.pdf). Until 2008, the Pasteur Institute was the only PEP center in the country (please see page 3 lines 74-75).

iii. High distance should be replaced by long distance: Modification done

iv. Page 2, line 33 replace have with had: Modification done
v. Page 4, line 98 – rabies clinical symptoms – perhaps symptoms should be replaced by signs [a sign is a phenomenon that can be detected by someone other than the individual affected by the disease]. The authors agree to change the term “symptoms” into “signs”.

vi. Page 8, line 181 – animal should read animals: Modification done

vii. Page 12, line 246, insert “enforcement of” just before regulations: Modification done

viii. One of the things not mentioned is the rabies status of Dakar – is it endemic of rabies?
Rabies is endemic in Senegal. Information is added in the background section (page 3 line 71).

ix. On page 13, line 282, why is laboratory testing for rabies confirmation not regularly performed? In Senegal, the rabies confirmation in animals started in 1952 at the National laboratory for veterinary research (Laboratoire National d’Elevage et de Recherches Vétérinaires). Due to the lack of requests for rabies confirmation in animals, absence of adequate material and trained staff, every few rabies tests were performed until 2008. It’s only when the national control program against rabies was officially launched by the Ministry of Health in October 2010, that the number of lab testing in animals increased to reach a total of 50 in the last years.

x. Line 297, page 14 – advices should read advice: Modification done

xi. Line 324, page 15 – this is very important – I was curious as to how animal and human rabies control are done? How strong is the one health approach? I would think that animal rabies is a public health concern since most of the human rabies cases are dog-mediated. As mentioned in the manuscript, the strategies for control and elimination of canine rabies in Senegal has been implemented since 2010. It should still be reinforced, especially on the collaboration between medical and veterinary sectors and on investments in these two sectors. As suggested by Cleveland and al. Philos Trans R Soc Lond B Biol Sci. 2017, the One Health approach in Senegal is under consideration since June 2018; however, this approach is at a very early stage of discussion.
Responses to reviewers: I think they have addressed the reviewers’ concerns.

i. The concern of types of exposure – this explanation makes sense to me. Patients who are receiving a course of PEP discontinue as soon as the laboratory result for the specimen from the contact animal is negative. But how does this explain the result for those who may not have a confirmed result? As mentioned in the manuscript, very suspected animals were tested. Therefore, for most of the patients who started or not the PEP, the reasons of discontinuing the prophylaxis were not related with the result of a potential confirmation of rabies exposure. The authors acknowledge that if a lab testing could be regularly performed when exposure, this will allow a better management of the PEP.

ii. For the first concern – high distance may discourage patients/people with bite contact to travel and receive PEP at distant centers. This in my own experience may be related to distance and costs associated with travel to such areas. I think what the authors need to do is link this to other related studies such as the ones by Cleaveland in Tanzania. The authors agree and added sentences in the discussion section (pages 12-13, lines 267-74)