Reviewer’s report

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

Version: 0 Date: 23 Oct 2017

Reviewer: Navneet Dhand

Reviewer's report:

In this manuscript, the authors investigate the factors influencing partial rabies post exposure prophylaxis (PEP). The study is well conducted and the manuscript would be of interest of the BMC Infectious disease audience. However, the authors should make the following suggested changes before the paper could be accepted for publication.

My main concern with the study is regarding the source population. Anyone visiting the Pasteur Institute would already be motivated for getting PEP. Therefore, the proportions of people getting PEP and proportions not complying with the PEP schedule are expected to be much higher in the general population.

Secondly, it is not clear that for the 65 patients who decided not to start PEP, whether or not they were advised by the doctors to commence PEP. If they were not advised, then they are not non-compliant. Similarly, if the 162 and 185 patients who stopped PEP after D0 and D7, respectively, were advised to do so by the doctors because say the biting dog was well and alive, then they should not be considered non-compliant. Including these patients in the non-compliant category would result in misclassification bias.

The approach to analysis is fine but a survival analysis approach would have been more suitable as it would have appropriately considered people dropping out at various times and compared hazards of non-compliance between various groups.
Other issues/suggestions:

Lines 57-58: Change to: Rabies is acute, progressive and is almost 100% fatal once clinical symptoms develop.

Line 70: human cases were reported...

Lines 80-82: Not sure what you mean. Please clarify.

Line 93: The criteria are clearer in the abstract. Please change to: 'All patients with a suspicion of rabies exposure who had sought PEP at the Pasteur Institute of Dakar from April 2013 to March 2014 were screened'.

Do the authors have any information about those who refused to participate?

Line 121: Shouldn't this be 'No PEP' instead of 'any PEP'? Check everywhere including the tables.

Lines 124-127: Chi-square results are not presented anywhere. Please delete.

Line 149/Table 1: It would be preferable to report the median age

Footnote a to Table 1: reword

All tables: Specify that the values in parentheses are column percentages.
Table 1 and 2: Are the proportions significantly different?

Line 184, 186-187: Were all of the 905 patients advised to get PEP?

Lines 217-222: Reword or delete the word 'increased' from line 222.

Table 4: Percentages have already been presented in previous tables. Please present betas, standard errors, odds ratios along with 95% CI and p-values from logistic regression analyses.

Table 5: It is a bit surprising that while many variables were significant in univariable analyses, none was significant in the multivariable model. Can you please double check? Were any variables collinear? Did the model fit okay? Please report results from a goodness-of-fit test like Hosmer-Lemeshow. If everything is okay then delete the table and present the results in the text.

Change univariate to univariable and multivariate to multivariable everywhere.

**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:

Needs some language corrections before being published

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