Reviewer’s report

Title: Prevalence and Risk Factors for Multidrug/Rifampicin Resistant Tuberculosis in Botswana

Version: 0 Date: 19 Sep 2018

Reviewer: Reviewer 2

Reviewer’s report:

PEER REVIEWER COMMENTS: To view the full report from the academic peer reviewer, please see the attached file.

REVIEWER COMMENTS FROM REPORT: This study reports drug resistant TB from a large sample based on public health facility records. It reports the risk factors for DR-TB. Generally, the paper is fairly well written. There are many areas for improvement.

In the background, authors mention about previous studies/surveys from Botswana. So they should mention how more information would benefit the practice and policy.

The Methods is the weakest section of this paper. The Design is not a cross-sectional but it is a retrospective review of medical records.

Authors may choose to see the headings for reporting cross-sectional from STROBE guidelines deleting the headings of those that are not relevant.

REQUESTED REVISIONS:

Specific Improvements needed to methods:

Please describe briefly the TB control program highlighting the organisation of TB care, what tests were done for establishing drug resistance? Who were usually tested? HIV among TB testing strategy?

Were the patients from private sector also included also?

Describe the information management system from where data was collected. Append the check list for review of medical records.

How was drug resistance defined in Botswana?

Authors should not include risk factors, since the study was opportunistic using retrospective case review. Data may not be representative of all patients. It may be wiser to list the factors as associated factors only.
Missing values should be provided for example % of male and female do not add up to 100%.

Very detailed description of sociodemographics is not necessary. Authors should revise the table 2 on associated (risk) factors.

Provide proportions in each category, provide univariate odds ratios also. Some odds ratios are incorrect, please check . For age < 14 years 2.622 (0.6371 - 0.785), the 95% CIs are wrong.

Writing +/- SD is wrong as well.

Discussion does not make policy and research implications, limitations do not mention non-representativeness.

Conclusion should focus mainly on what the results mean and what could be done?

In abstract, conclusion only repeats results already mentioned.

ADDITIONAL REQUESTS/SUGGESTIONS:

NONE

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:
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