Reviewer’s report

Title: Fluoroquinolone resistance and mutational profile of gyrA in pulmonary MDR tuberculosis patients

Version: 0 Date: 07 Nov 2019

Reviewer: Research Square Reviewer 1

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?
No - there are minor issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?
Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?
No - there are minor issues

STATISTICS - Is the use of statistics in the manuscript appropriate?
Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?
Yes - the author's interpretation is reasonable

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS:
Authors of this MS study report and increasingly important drug-resistant tuberculosis which is gaining focus in TB control. Drug resistance profile and mutational sequences of FQ only is important though it would have been desirable to study other first-line drugs. They provide a descriptive analysis of resistance profile though. As recommended by the authors this study provides evidence for need of genotypic studies prior to initial treatment for a more effective treatment.
REQUESTED REVISIONS:
Some suggestions for improvement are listed below.
1) line 21-22 how many estimated cases and what is missing estimated number of cases? It is a useful information in general if the context of this paper. Case finding is a major issue under current TB control.
2) lines 26-28
I suggest that authors mention how they arrived at this sample size?
3) lines 6-7
To which high incidence are the authors referring to? They may provide literature about the proportion of FQ resistance etc. to support their statement.
4) lines 34-35
Ethics statement be a stand alone, not included under this paragraph
5) lines 55-57
It would be good to list those districts to know geographic distribution of frequency of FQS-R proportions
6) lines 8-10
it would be interested to read the entire profile of drug sensitivity/resistance to all the first line drugs with numbers and % if space provides.
7) lines 28-29
There is abrupt beginning to the discussion. A summary of FQ resistance and mutations followed by why resistance would occur would be more logical.
8) lines 40-41
provide the details of numbers and duration of therapy.
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.

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

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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Please complete a declaration of competing interests, considering the following questions:

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2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

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5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

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