PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

| TITLE (PROVISIONAL) | Screening for HIV among tuberculosis patients: a cross sectional study in Sindh, Pakistan |
|---------------------|---|
| AUTHORS | Hasnain, Jamshed |

VERSION 1 - REVIEW

| REVIEWER | Dr. Hasan Abbas Zaheer Project Director Safe Blood Transfusion Services Programme |
|-----------------|---|
| | Government of Pakistan |
| | Islamabad, Pakistan |
| | I have no conflict of interest to declare. |
| REVIEW RETURNED | 25-Jul-2012 |

| GENERAL COMMENTS | The study is fit for publication. |
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| REVIEWER | Neha Shah, MD MPH |
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| | Centers for Disease Control and Prevention |
| | California Department of Public Health |
| | USA |
| REVIEW RETURNED | 26-Jul-2012 |

| THE STUDY | Research Objective: The research question to assess the feasibility of HIV screening of TB patients in Sindh province was appropriately addressed in this study. However, the objective to describe how HIV affects TB patients in this area was not addressed with this study and may require further data collection to assess the impact of HIV on the population in this province, transmission, trends in HIV infection and morbidity/mortality. The authors could considering focusing solely on the first objective. |
|-----------|--|
| | Research Methods: Some details of the study method could be further clarified. Were data collected through an interview or abstracted from the TB/HIV register? Please define a social mobilizer as this is not a common term. Were patients retested if they already knew their HIV status? What is someone already had a documented HIV test from the past? Did patients have to return for confirmatory testing results? If so, were there any patients lost to follow-up? Did data and results have identifiable data on them? Was TB diagnosis confirmed? The sites selected represent a convenience sample, but more information could be included regarding why this province was selected and the demographics of these sites and the province. This would help readers determine how representative this study would be for the rest of the country. Some questions that the authors could add include: |

| RESULTS & CONCLUSIONS | Are the sites TB referral centers? How many of the TB patients in the country come to these clinics or are covered by these clinics? What is the case detection rate of TB in the country? Does most TB care happen at clinics or in the community? What was the previous practice of HIV testing TB patients prior to this study? Was there no testing going on? Abstract: The abstract does not include Limitations Grammar and References: There are several minor grammatical errors and the references needed to be formatted according to standard guidelines. Results: The results presented answer the first research question but do not fully address other objectives of the study. If possible, data should be presented to answer the following questions: How many patients already knew their HIV status prior to being tested? Were there any patients lost to follow-up when as they had to return for their confirmatory testing? Results could be presented in a more standardized format to make it easier for the reader to follow. For example, Table 1 should include the demographics of the study population and then Table 2 could include the bivariate analysis. The authors do not report on marital status, currently or previously received HIV treatment. If possible, the bivariate could include analysis based on severity of TB disease if those data are available. |
|-----------------------|---|
| GENERAL COMMENTS | Conclusions: The authors are missing a limitation section. This manuscript presents important and unique data on TB and HIV surveillance in Pakistan. Clearly HIV surveillance in TB patients in Pakistan is very much needed. Thank you for doing such an important study and for the opportunity to review such an interesting project. |

VERSION 1 – AUTHOR RESPONSE

Reviewer: Dr. Hasan Abbas Zaheer Project Director Safe Blood Transfusion Services Programme Government of Pakistan Islamabad, Pakistan

I have no conflict of interest to declare.

The study is fit for publication.

Reviewer: Neha Shah, MD MPH Centers for Disease Control and Prevention California Department of Public Health USA

Research Objective:

The research question to assess the feasibility of HIV screening of TB patients in Sindh province was appropriately addressed in this study.

1. However, the objective to describe how HIV affects TB patients in this area was not addressed with this study and may require further data collection to assess the impact of HIV on the population in this

province, transmission, trends in HIV infection and morbidity/mortality. The authors could considering focusing solely on the first objective.

Response: We agree with the reviewer as the objectives were started - we meant to imply that we wanted to describe the prevalence of HIV among TB patients, which we think is documented now after answering your other helpful comments - and so have changed the penultimate paragraph in the introduction (page 2) to read

The objectives of this study were to investigate the feasibility of HIV screening among TB patients registered for treatment in selected TB treatment centres in Sindh province and to describe the prevalence of HIV among TB patients in the study area.

Research Methods:

Some details of the study method could be further clarified.

1. Were data collected through an interview or abstracted from the TB/HIV register?

Response: We have included the following description at the top of page 6 in the methods section: Data was collected interviews and recorded on standard TB/HIV registers maintained at each site. The data was then abstracted from these registers for the study.

2. Please define a social mobilizer as this is not a common term.

Response: We have included the following description at the bottom of page 5 in the methods section: Social mobilizers are trained persons who provided training, education and counseling to TB patients and performed Rapid HIV testing and maintained TB/HIV register.

3. Were patients retested if they already knew their HIV status?

Response: None of the patients in the study knew about their HIV status, at the time of interview. We have added in the results section, fourth sentence: None of the people counseled reported receiving an HIV test previously.

4. What if someone already had a documented HIV test from the past?

Response: None of the patients in the study had any documented HIV tests done in the past.

5. Did patients have to return for confirmatory testing results? If so, were there any patients lost to follow-up? Did data and results have identifiable data on them?

Response: Yes all patients who were initially reactive on Rapid test were asked to return for results. All these patients were registered at these DOTS sentinel sites for TB treatment and regularly attended TB clinics for follow up. Patients were given code with which to collect the results and we have added a phrase in the last sentence of the methods section to address this.

6. Was TB diagnosis confirmed?

Response: Yes all patients in the study were confirmed cases of TB, according to national and WHO

guidelines.

- 7. The sites selected represent a convenience sample, but more information could be included regarding why this province was selected and the demographics of these sites and the province. This would help readers determine how representative this study would be for the rest of the country. Some questions that the authors could add include:
- Are the sites TB referral centers?
- How many of the TB patients in the country come to these clinics or are covered by these clinics?
- What is the case detection rate of TB in the country?
- Does most TB care happen at clinics or in the community?
- What was the previous practice of HIV testing TB patients prior to this study? Was there no testing going on?

Response:

We agree that the sites were not randomly selected, but all TB patients within these sites were included in the sample. The sites are TB DOTS centers working in public sector. Most of the TB care in Pakistan is done in the community following WHO DOTS strategy. The 6 sites registered 18,641 TB patients over a 4 year period. In comparison, Pakistan notifies around 400,000 patients annually, so this study is a small proportion of that total.HIV testing of TB patients is virtually nonexistent in Pakistan as stated in the introduction. TB patients are not routinely tested for HIV in the country.

In the text we have modified beginning with the second sentence of the Methods section to better describe the selection of sites in the light of your above suggestions.

We have also included this discussion around site selection in the limitations section.

Abstract:

8. The abstract does not include Limitations

Response: Thank you – we have included this now.

9. Grammar and References: There are several minor grammatical errors and the references needed to be formatted according to standard guidelines.

Response: We have re-reviewed the manuscript for grammatical errors and updated the references.

Results:

10. The results presented answer the first research question but do not fully address other objectives of the study.

Response: We agree that as worded originally, the study did not answer the questions. We have now modified the objectives to answer the questions around feasibility and describe HIV prevalence among TB patients in the study area.

- 11. If possible, data should be presented to answer the following questions:
- How many patients already knew their HIV status prior to being tested?

Response: None and this is now mentioned in the results as described earlier.

- Were there any patients lost to follow-up when as they had to return for their confirmatory testing?

Response: None although we could not successfully link all of the patients to ART (35 were registered). We have included a line at the end of the results section on page 7 to describe this finding.

- Results could be presented in a more standardized format to make it easier for the reader to follow. For example, Table 1 should include the demographics of the study population and then Table 2 could include the bivariate analysis.

Response: Thank you for the suggestion. We have incorporated a new table with this information have also modified Table 2 to just include the bivariate results.

- The authors do not report on marital status, currently or previously received HIV treatment.

Response: None of the patients received any HIV treatment previously. We do not have data on the marital status of all the patients that is why it was not included.

- If possible, the bivariate could include analysis based on severity of TB disease if those data are available.

Response: We do not have data on severity of TB disease.

- Conclusions:
- The authors are missing a limitation section.

Response: Thank you – we have included this now in the discussion in the penultimate paragraph.