Reviewer's report

Title: Delay in the diagnosis and treatment of pulmonary tuberculosis in Uzbekistan: a cross-sectional study

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Reviewer: chien-chou chen

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The authors measured delay in the diagnosis and treatment of pulmonary tuberculosis in Uzbekistan and associated risk factors. The results of the study are important for the evaluation of tuberculosis control in a country with high disease burden of multi-drug resistant tuberculosis.

Major comments:

1. Table 1. Table is hard to read. Some variables reported all subgroups (for example, male/female under sex) while others didn’t (for example, smoking). For effective communication, I would suggest reformat the variables in Table 1. It would be clear to present all mutually exclusive subgroups of a variable (for example, MDRTB/non-MDRTB) in a table. (see Table 1 in Makwakwa et al. 2014).

2. Table 2. The authors only reported the number (percentage) of patient in the subgroup (cell) according to delay/non-delay. However, the most important information in this table should be reported is the median delay value for each subgroup. Adding median delay value to each subgroup might make the comparisons of delay between delay/non-delay more straightforwardly. (for example, see Table 2 in Makwakwa et al. 2014). Also, including all subgroups of a variable like Table 1 might help readers understand the definition of a variable clearly. For example, readers might be confused about the definition of "Health care facility visited before TB diagnosis" (includes Public Hospital, Polyclinic, Private clinic, and what subgroup?), since the percentage of subgroup didn’t sum to 100 in Table 2.

3. Sample representativeness. The authors interviewed 538 patients with newly diagnosed tuberculosis from two cities (Tashkent and Nukus) of Uzbekistan. Whether or not these 538 patients could represent the overall distribution of tuberculosis patients in Uzbekistan might be questionable. One possible suggestion might be to narrow down the study area mentioned in the title as “… in northern Uzbekistan”.

4. Measurement of delay/non-delay. To evaluate the risk factors of delay, the authors dichotomized observations into delay/non-delay according to the median delay without relative citation or interpretation of the cut-off (line 146). I would suggest consult Lusignani et al. (2013) or Makwakwa et al. (2014) regarding the dichotomy of delay.
5. Smoking. In Discussion section, the authors found that current smoking was associated with earlier diagnosis. Never-smokers were more likely to have delays than smokers (line 266-268). However, I could not find relative results to support these arguments. In addition, the number of smoker in Table 1 (n=24) was not in agreement with that in Table 2 (n=222).

Minor:
6. The mean duration in Abstract (line 38) should be “the median duration”;
7. The two # signs in Table 2 under Predictors column should be “>”.

References

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests