Reviewer's report

Title: Factors associated with the low cure rate of tuberculosis in the remote poor areas of ShaanXi Province, China: a case control study

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Reviewer: M A Hamid Salim

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Study period: Not clear. It seems from the text that the 30 counties selected based on the treatment outcome (<85%) of 2005 and patients included those who registered from 1st June 2006 to 31st March 2007. However, under the sampling it was stated that to increase the number of non cured patients all non cured patients from the period of 1st June 2006 to 31st March 2007 were additionally added. What is additionally added to whom? and what is the registration period of those cases? Need to clarify more clearly.

Methods: It is not clear how patients (639) interview were conducted. Did all patients attended in the CDC? If yes, what was the mechanism used to invite all these cases in the CDC for interview. It is neither clear whether home visit done to interview those cases. Another important concern: except death there are some other reasons like: migration, refusal for interview etc may also contribute to the number missing for the interview-need more clarification.

Analysis of data: Several definitions used in the manuscript does not comply with the internationally accepted definitions. Results explain that 37 patients had completed treatment but did not submit end sputum; these patients were considered among the non cured group. As per WHO guidelines outcome of these cases are considered as part of treatment success along with cured cases. More over data shows 12.8% of those 133 defaulted and 48.9% refused treatment-it is not clear how differentiation is made from default and refusals. As per WHO definition both are defaulters.

Other observations:

- Almost half of the cases experienced side effects due to TB treatment but it is not clear what kind of regimen used and for how long?
- Among the variables considered for non cure in this study some other important variables like: accessibility to health centers in terms of distance and communication system plays very important roles-these are not considered in this analysis.
- Overall text need to be more readers friendly.

Level of interest: An article of importance in its field
**Quality of written English:** Needs some language corrections before being published

**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