**Reviewer’s report**

**Title:** Patient and health care system characteristics are associated with delayed treatment of tuberculosis cases in Taiwan

**Version:** 0  **Date:** 30 Jul 2018

**Reviewer:** Trisasi Lestari

**Reviewer's report:**

The study objectives are very important to reduce treatment delay in TB care in Taiwan. However, the authors need to address several technical concern to prevent misunderstanding.

Comment 1. Title is confusing and does not really related with the conclusion

Comment 2. The author should describe how TB care is provided in the primary health center, hospital and private clinic and explain patient's flow. Is there any differences?

Comment 3. What is DOTS-Plus, and what is the different with the standard DOTS

Comment 4. Several terms in the abstract are not clear, i.e. DOTS-Plus, non-severe, initial visit. The terms TB care or TB services is more common to anti-TB services. Line 87-88: PPA to assess alignment between patient care initiation and the availability of prompt TB diagnostics and treatment services. Does patient care initiation mean patient first visit to seek care for TB symptoms? What

Comment 5. The observation window was only 12 months. Is there any possibilities for cases to have TB symptoms for more than 12 months and what is the proportion?

Comment 6. It would be easier to understand the chronological sequence if it is written from left to right. Left end: time when a patient with TB symptoms seeking treatment and Right end : time TB treatment was provided. Time when laboratory works or chest x-ray was performed is added in between.

Comment 7. Delay was calculated from first visit for TB symptom within 1 year of diagnosis and start of treatment date. However, it is not clear whether patient's factors or provider's factors that affected the delay. Is it because patient did not show up for laboratory test/chest x-ray/treatment? Is it due to delay in diagnosis, because physicians did not requested sputum examination or chest x-ray or because it took a long time to provide test results? Is it not because of delay in the internal referral process within a health facility? Description of delays in each process of TB services is important to identify effective strategies to reduce delay.
Comment 8. Hazard analysis showed that higher risk for delay among patients who initiate care at the primary health care, was diagnosed with chronic respiratory diseases, and living in long term facilities/nursing homes. Since it is not clear which process contributed to the delay, how to justify that training of physicians will reduce the delay? Does physician are available in the nursing homes and do they have to refer TB suspects from nursing home to primary health care or hospital?

Comment 9. The author should be able to create a recommendation for actions or select prioritize regions or health facilities for implementation of intervention needed to reduce delays.

Comment 10. Clear description on how to interpret the map and rings is needed.

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.

I am able to assess the statistics

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

Not suitable for publication unless extensively edited
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