Reviewer's report

Title: Effect of "cough officer screening" on detection of pulmonary tuberculosis among hospital inpatients

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Reviewer: Cynthia Bin-Eng Chee

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Major Compulsory Revisions

1. What was the rationale for subdividing cough duration as the authors have done, and using the threshold of cough > 5 days to trigger investigation with chest radiograph and sputum smear / culture? Were all three investigations performed for all patients picked up by the COS alarm? The yield of the COS was 0.5% (42/7998) in stage I and 12/6221 (0.2%) in stage II. Cost-effectiveness analysis should ideally be carried out.

2. 60% and 45% of patients identified by the COS system were not examined by physicians in stage I and II respectively - what were the reasons for this? Yet, figure 1 shows that there were 10 TB cases in stage I - how were these cases diagnosed? Could the authors be sure that there were no other TB cases from among those who were not examined by the physicians?

3. Was the diagnosis of TB based on positive sputum TB cultures in all patients? If not, what was the proportion of bacteriologically negative patients, ie those in whom the diagnosis was made based on chest radiograph features? (These patients are likely to be less infectious, and of less public health impact.)

4. The authors could, from their data, make suggestions for refining their COS alarm system for better targeting of patients with cough for TB evaluation. Were there risk factors identified (eg. age, BMI, co-morbidities such as diabetes or malignancy) which may be helpful in more efficient targeting of patients?

5. That the time from COS alarm to clinical action was significantly longer in stage II may suggest some complacency. The authors attributed it to the exclusion of ICU cases in stage II. Was subanalysis of stage I data on non-ICU patients performed to substantiate this?

6. The conclusion that the COS system "appears to reduce nosocomial transmission of TB" cannot be made from the study findings. Risk of nosocomial transmission was not specifically measured as a study outcome. There are also other factors besides diagnostic delay which influence the risk of nosocomial transmission.

Level of interest: An article of limited interest
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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