Reviewer’s report

Title: Impact of sputum gross appearance and volume on smear positivity of pulmonary tuberculosis: a prospective cohort study

Version: 1 Date: 28 March 2012

Reviewer: Mishal Khan

Reviewer's report:

Minor Essential Revisions

The statement that instructions are insufficient for improving sputum quality (background para 2) is questionable because studies show that sputum quality is improved by instructions. Of course not all suspects give good quality sputum after instructions, but this is often because they are not producing sputum.

Regarding higher positivity in women, a point to consider is that women who naturally produce a higher volume of sputum may be sicker and therefore more likely to be smear-positive. Therefore is it the larger volume or sicker patient that is correlated with sputum positivity? If a policy is made that only 4ml or larger of sputum is accepted, patients will cough up multiple times, which may or may not be the same as a patient who produces a large volume of sputum at one time.

Major Compulsory Revision

It is not made clear what objective criteria were used to determine whether a sputum specimen was mucoid, blood stained etc. Was there a scoring system? If it is just left to the individual technician, it will be difficult to translate the findings into a policy because how well specimen quality is judged will vary from diagnostic centre to diagnostic centre.

While comparisons are made between males and females in the text, as far as I can see ORs in women are not statistically compared with ORs in males.

Discretionary Revisions

Is there any way to condense information from tables so that 3-4 tables are presented?

Level of interest: An article of importance in its field

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