Reviewer’s report

Title: Monthly house calls by community health workers and public health nurses to improve adherence to isoniazid monotherapy for latent tuberculosis infection: a retrospective study

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Reviewer: Wendy A Cronin

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Review BMC 2013

Thank you for the opportunity to review this manuscript. The authors described a retrospective study of patients being treated for latent TB infection through either home or clinic visits each month. Compliance was measured through pill counts, number of INH refills, and for clinic patients, clinic visits. The study outcome was completion of at least 6 months of isoniazid within 9 months, regardless of a prescription of 6 or 9 months. Patients were assigned to home or clinic visits somewhat subjectively by providers based on risk (children <6, contacts, or recent TST conversions) and those at risk for treatment failure. Patients receiving home visits were nearly 3 times more likely to complete treatment, even in multivariate analyses. Adverse events were monitored and evaluated.

This is a second review. Though retrospective, this study addresses an important topic. LTBI treatment completion is a well-known and frustrating problem in the U.S. and likely in other countries as well.

A few specific comments listed below need to be addressed. These are not large but I consider each to be a Major Compulsory Revision.

1. The Methods section is too wordy. This section can easily be reduced by at least one-quarter, without losing information.
2. Please define “Treatment failure.” Do you mean “likely to default” or increased adverse events?
3. The logic for adjusting analysis for liver toxicity was based on age <35 or > 35 years old – this decision should be justified and referenced.
4. Results section is also somewhat wordy – phrases like “during the study” or “in our cohort” are not needed. Please delete unessential phrases.
5. In Results, hepatitis incidence is reported by <35, >35, and also >50 years old, which differs from comment #3 above. Please be consistent about age groups.
6. Abnormal liver enzymes were significantly more common in the clinic group (p=0.02; Table 4), yet reasons are not addressed in the Results or Discussion. The bottom of p. 8 refers to adverse events between home and clinic after adjusting for age and referral reason (p=0.10). This apparently addresses all AE, not the significant finding (abnormal liver enzymes) in bivariate analysis. Please
clarify.

7. That same phrase states (bottom of p. 8) “there was no increase in rates...after adjusting...” – this should be re-worded to read, “There was no association between adverse event and the type of followup...” Adjusting does no change rates, but may modify associations.

8. Discussion – The second paragraph states: “Our study demonstrates the house calls may be an effective method to increase treatment ....without increasing the risk of adverse effects such as hepatitis.” I found this to be an unexpected sentence: why would home visits increase adverse events due to the drug. In fact, hepatitis was greater in the clinic group (p=0.06). Do you mean more patients taking all their meds potentially leads to greater adverse events?

9. Tables: It would be useful and helpful to see in both Tables 1 and 2 the proportions of comorbidities such as chronic viral hepatitis and alcohol abuse, since these data were apparently collected.

10. Tables: please be consistent in the number of decimal places.

**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. Wendy Cronin, PhD