Reviewer’s report

Title: Prevalence and drug resistance profile of Mycobacterium tuberculosis isolated from pulmonary tuberculosis patients in East Gojam Zone, North-West Ethiopia

Version: 2
Date: 3 November 2014
Reviewer: Solomon A Yimer

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Major Compulsory Revisions
General
Periodic prevalence studies on Mycobacterium tuberculosis (Mtb) drug resistance are necessary for monitoring and evaluating TB control program performance. The findings in this study give an insight into the status of Mtb drug resistance in a rural hospital setting, and can be used to take important measures to control the treat of drug resistance in the study area.

I have the following specific queries and comments for your consideration.

Methods
• I was wondering if you have considered sample size calculation in your study.
• Please give more information about the 18 health centers found in the Zone. How many of these health centers have the capacity to diagnose and treat TB (at least those that have sputum smear microscopy and skilled personnel such as health officer or GP).
• Please include information about the total number of private facilities in East Gojjam Zone, and how many of them currently implement DOTS?

Results
The study was done in two hospitals in East Gojjam Zone, and you are claiming that the two hospitals being referral centers can represent PTB patients in East Gojjam Zone. Mtb drug resistance prevalence for the zone was thus determined on this basis.

In my opinion, TB patients seeking care in the two hospitals do not necessarily represent other PTB patients in East Gojjam Zone. Patients seeking care at hospitals are rather selected groups of patients who go there because of a referral, or on their own interest of getting better health care. Additionally, these are patients who can afford transportation cost and other related expenses to seek health care at hospitals. I am assuming that most of the health centers in East Gojjam Zone have at least sputum smear microscopy facility and skilled personnel to diagnose and treat pulmonary TB. Many TB patients may thus be managed at health centers. Therefore, as long as you have not at least included representative number of PTB patients attending health centers, the study result
is highly likely to suffer from selection bias, and the data may not be adequate enough to make generalization on the prevalence of Mtb drug resistance at Zonal level.

I suggest that you limit your generalization to PTB patients attending the two hospitals, and revise your title and discussions accordingly.

Discussions

• In describing your limitations, you stated that “this study included only PTB suspects attending health facilities and does not account for drug resistance patterns among population not having access to the health facility.” Here you need to specify what you mean by “health facilities”? You only included two hospitals.

• What about those that went to private facilities? And what about those that visited health centers for seeking care? I think these are also important limitation that should be included as parts of the limitation of your study.

• You found that “those in the group 25-34” years of age were more likely to have drug resistant TB. I could not see your discussion on this.

Minor comments

• There are some editorial mistakes here and there in the manuscript that need to be corrected. For example; the word “respectively” has been used without comma in front. Please make sure that it is preceded by a comma throughout the manuscript.

• “Smear positive” and “smear negative” have been used without a hyphen in between. Better to use as “smear-positive” or “smear-negative”

• Sometimes you use MDR-TB another time you use MDRT

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests