Reviewer’s report

Title: Characterization of extensively drug-resistant Mycobacterium tuberculosis isolates circulating in Siberia

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Reviewer: Harriet Mayanja

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This paper aims at delineating new molecular techniques for the detection of MDR and XDR by looking for mutations in drug resistant genes that can be used for quicker diagnosis of drug resistance.

It’s a generally well written paper which despite the technical details is understandable in the TB care field, and of potential benefit to future patient care. The message and outcome has potential practical long term potential.

Minor revisions.

Lines 77-79 ¬ for the international community, the region names are not very informative. I suggest indicating where these regions are in Siberia; ¬ are they in any particular area e.g. north, east etc. Are they in high or low TB endemic regions Are they urban or rural. Are they distributed throughout the region? A map would have been ideal, but to cut down on figures, some description would probably suffice as suggested above.

It’s unclear what percentage of samples were from HIV infected participants.

Isolates were randomly selected, with 29 XDR out of 30 MDR samples selected. Authors could say more about this - How was randomisation done. With 29 of 30 isolates XDR, is this a true reflection of the population isolates.

line 26 - Abstract, results - 29 isolates XDR. While line 164 in results - 28 isolates were XDR.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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'