Reviewer's report

Title: Molecular detection of rifampin and isoniazid resistance to guide chronic TB patients’ management in Burkina Faso.

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Reviewer: Hendrik Simon Schaaf

Reviewer's report:

Review of resubmitted manuscript: Molecular detection of rifampin and isoniazid resistance to guide chronic tuberculosis patients’ management in Burkina Faso

The authors have managed well to answer most of the reviewers’ comments. There are two major comments that need to be addressed in the manuscript and a few minor suggested changes:

Major comments:
1. No study should be performed on patients, especially in developing countries by anyone including researchers from the country itself and researchers from developed countries without a clear protocol submitted and approved by the appropriate ethical/institutional review board(s). I have addressed this in my first review and the authors have indicated in their letter of reply that there is a contract for technical assistance between The Ministry of Health, Burkina Faso, the San Raffaele Institute, Milan, Italy and the University of Brescia, Italy. However, no mention is made of approval of this study and no mention even of the contract is made in the manuscript. This definitely needs to be done.

2. Line probe assays and molecular assay are first mentioned in the results and then several times in the discussion. People not familiar with the new tests will not necessarily know that GenoType MTBDRplus is but one of the line probe assays/molecular assays – this needs to be clearly explained in the Introduction or Background

Minor comments:

Abstract page 2, line 5 – delete “respectively” at end of sentence (percentages are already connected to the mutations referred to). Line 6: change resistance to “resistant”

Editorial corrections: drug-resistant and drug resistance (with and without hyphen); smear-positive and smear-negative (to be same throughout manuscript)

Methods, page 5, 6th line: The National… (add The)

Methods, page 5, 3rd paragraph, 4th line: It will be clearer if (category IV) is also added just before [23] – this will make explanation of category IV in next sentence more logical. In the next paragraph, 3rd line: …beginning of the Category IV… (only using one regimen in BF). Next line: …variable times during their Category IV therapy. Last sentence: Two early morning sputum samples
were collected from each patient at enrolment into the study, immediately frozen… (add “at enrolment into the study”)

Results, page 7, line 7: Change sentence to read: Twenty nine out of 46 (63.0%) were identified… Next sentence: The percentage increased to 67.4% when two cases identified as RIF monoresistant were included. End of next sentence: …associated with INH resistance.

The word “resulted” is often used in a context that I am not familiar with – maybe the editor of the journal can help with that.

Results, page 7, 3rd paragraph, line 2: non-tuberculous mycobacteria (lower case m)

Page 8, 1st sentence: Despite the fact that we…

Page 11: 1st line: T0 should be M0

Page 11, 4th paragraph, 1st line: replace “harvested” with “yielded”

Page 11, 5th paragraph, 1st line: Reported susceptibility test result for RIF…

Same paragraph: I think that it will be more clear to say that 4 samples showed INH susceptibility by molecular line probe assay, while these were identified as INH-resistant by culture-based DST (2 INH monoresistant, 2 MDR) This part in brackets does not even have to be added because one can see it in the table.

Page 12, 4th paragraph, 1st line: One case with negative culture and with a positive MDR profile on molecular assay…

Page 13, line 7: …high HIV prevalence settings.

Figure legend: Only one category IV regimen was used?

Table 1: Follow-up should be M1-M30 and explained in the footnote as should M0. Same table, 7th line from the bottom of the table: “RIF” not RIR. Footnote – spelling of multidrug-resistant as in manuscript text (same in table 2)

**Level of interest:** An article of importance in its field

**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’