Author's response to reviews

Title: Cost-effectiveness analysis of PCR for the rapid diagnosis of pulmonary tuberculosis

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Author's response to reviews: see over
Dear Editor,

It is a satisfaction submitting to “BMC Public Health” the manuscript: **Cost-effectiveness analysis of PCR for the rapid diagnosis of pulmonary tuberculosis**

In developing countries, *in house* polymerase chain reaction (PCR) is often used for the amplification of *Mycobacterium tuberculosis* (MTB) DNA. PCR; mostly this based on amplifying the insertion element IS6110 which offers the potential of a sensitive, specific and rapid diagnostic for diagnosis of pulmonary tuberculosis (PTB). Many prior studies note that routine clinical use of PCR may be difficult due to its high cost, mainly if the PCR was used itself and emphasize the importance clinical utility and cost effectiveness analysis for this tests as better argument for making such a decision. For regions with high burden of TB and HIV, that urgently needed new strategies for TB control, there are scarce data on cost-effectiveness analysis of PCR technique for TB diagnosis in developing nations.

The purpose of this study was to measure the cost-effectiveness of *in house* PCR in conjunction with direct microscopy by Ziehl-Neelsen staining (ZN) for PTB diagnosis, using as gold standard (the combination of positive culture with the clinical definition of PTB.

Finally, the strength of this study was to carry out in a developing country with a large number of PTB suspects considering HIV status stratification and history of
previous anti-TB treatment. This study evaluated the performance of a new technique (in
house PCR colorimetric dot-blot assay) in a reference hospital with high burden of TB.

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Sincerely,

Luciene Cardoso Scherer