

# AB027. A systematic review of the relationship between medication non-adherence and the economic burden of tuberculosis treatment in low- and middle-income countries

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**Background:** Adherence to medication treatment is challenging, given the complexity, modest tolerability, and long duration of medication regimens for tuberculosis (TB). In turn, low adherence increases the risk of poor outcomes, including treatment failure, relapse, and the development and amplification of drug resistance. Medication costs experienced by TB patients produce a severe economic impact on households and the healthcare system. The economic burden of TB treatment can have a significant impact on medication non-adherence. There exist interrelationships between economic burden of TB patients and their medication non-adherence behaviors. The objective of this study is to evaluate the economic burden of TB treatment due to medication non-adherence in low- and middle-income countries (LMICs) and to assess the economic impact on non-adherence of TB treatment in LMICs.

**Methods:** This systematic review follows the Medication Adherence Cost Estimation (MACE) framework to evaluate the economic impact burden of medication non-adherence of TB treatment in LMICs.

**Results:** We found a positive association between economic burden and TB medication adherence for both patient and health system. The increased investment in TB accelerated the recovery of gains against the disease. The clinic visits

costs and direct non-medical costs are the majority of economic burden for TB management from both patient and health system's perspective.

**Conclusions:** The findings highlighted the association between economic burden and TB medication adherence and called for health policy on the health equity in TB control, especially for poor and vulnerable population. There is a need for the economic incentives for TB medication adherence management in low-resource settings.

**Keywords:** Tuberculosis control (TB control); medication adherence; economic burden

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## Footnote

*Conflicts of Interest:* The author has completed the ICMJE uniform disclosure form (available at <https://jphe.amegroups.com/article/view/10.21037/jphe-2023-apru-ab027/coif>). The author has no conflicts of interest to declare.

*Ethical Statement:* The author is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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