

Improving the Uptake of Community-Based Multidrug-Resistant Tuberculosis Treatment Model in Nigeria

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Abstract : Despite advances made in the diagnosis and management of drug-sensitive tuberculosis (TB) over the past decades, treatment of multidrug-resistant tuberculosis (MDR-TB) remains challenging and complex particularly in high burden countries including Nigeria. Treatment of MDR-TB is cost-prohibitive with success rate generally lower compared to drug-sensitive TB and if care is not taken it may become the dominant form of TB in future with many treatment uncertainties and substantial morbidity and mortality. Addressing these challenges requires collaborative efforts through sustained researches to evaluate the current treatment guidelines, particularly in high burden countries and prevent progression of resistance. To our best knowledge, there has been no research exploring the acceptability, effectiveness, and cost-effectiveness of community-based-MDR-TB treatment model in Nigeria, which is among the high burden countries. The previous similar qualitative study looks at the home-based management of MDR-TB in rural Uganda. This research aimed to explore patient's views and acceptability of community-based-MDR-TB treatment model and to evaluate and compare the effectiveness and cost-effectiveness of community-based versus hospital-based MDR-TB treatment model of care from the Nigerian perspective. Knowledge of patient's views and acceptability of community-based-MDR-TB treatment approach would help in designing future treatment recommendations and in health policymaking. Accordingly, knowledge of effectiveness and cost-effectiveness are part of the evidence needed to inform a decision about whether and how to scale up MDR-TB treatment, particularly in a poor resource setting with limited knowledge of TB. Mixed methods using qualitative and quantitative approach were employed. Qualitative data were obtained using in-depth semi-structured interviews with 21 MDR-TB patients in Nigeria to explore their views and acceptability of community-based MDR-TB treatment model. Qualitative data collection followed an iterative process which allowed adaptation of topic guides until data saturation. In-depth interviews were analyzed using thematic analysis. Quantitative data on treatment outcomes were obtained from medical records of MDR-TB patients to determine the effectiveness and direct and indirect costs were obtained from the patients using validated questionnaire and health system costs from the donor agencies to determine the cost-effectiveness difference between community and hospital-based model from the Nigerian perspective. Findings: Some themes have emerged from the patient's perspectives indicating preference and high acceptability of community-based-MDR-TB treatment model by the patients and mixed feelings about the risk of MDR-TB transmission within the community due to poor infection control. The result of the modeling from the quantitative data is still on course. Community-based MDR-TB care was seen as the acceptable and most preferred model of care by the majority of the participants because of its convenience which in turn enhanced recovery, enables social interaction and offer more psychosocial benefits as well as averted productivity loss. However, there is a need to strengthen this model of care through enhanced strategies that ensure guidelines compliance and infection control in order to prevent the progression of resistance and curtail community transmission.

Keywords : acceptability, cost-effectiveness, multidrug-resistant TB treatment, community and hospital approach

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