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Abstract

Tuberculosis (TB) remains the leading cause of morbidity and mortality worldwide among people living with HIV. Globally, the incidence of multidrug-resistant tuberculosis and extensively drug resistant tuberculosis, the most drug-resistant forms of TB, has approximately doubled over the past fifteen years. Nowhere has this increased incidence generated more concern than South Africa where interactions between TB and generalized HIV/AIDS epidemics are causing 'explosive' TB incidence and case-fatality threatening to undermine the progress reached with antiretroviral therapy (ART).

Medication adherence, a key predictor of outcomes in multi-and extensively drug-resistant TB (M/XDR-TB) and HIV treatment, is understudied in high burden TB/HIV settings. Patient losses during transitions in the TB/HIV care continuum are frequent and lead to increased mortality. Demands of M/XDR-TB HIV treatment are severe including extraordinary pill burden, severe adverse effects, lengthy treatment, isolation, and stigma, with few parallels in modern medicine

The goal of the proposed study is to enhance adherence and retention in care for M/XDR-TB HIV patients in South Africa through a community-based strategy, including use of community adherence groups, with the overarching goal of promoting patient engagement in a continuum of M/XDR-TB HIV care. Although well established for ART, this is the first application of a community adherence group intervention to an M/XDR-TB HIV co-infected population. To achieve this goal, we will characterize critical implementation gaps in our understanding of adherence to treatment for drug-resistant TB and HIV, use this data to inform a randomized controlled trial of a community based intervention to improve adherence and promote retention in care, and rigorously evaluate the intervention with a mixed methods approach using quantitative clinical outcomes and qualitative understanding of impact on barriers and facilitators