

Unsuccessful TB treatment outcomes with a focus on HIV co-infected cases: a cross sectional retrospective record review in a high-burdened province of South Africa

CITATION

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ABSTRACT

Background: South Africa did not meet the MDG targets to reduce TB prevalence and mortality by 50% by 2015, and the TB cure rate remains below the WHO target of 85%. TB incidence in the country is largely fuelled by the HIV epidemic, and co-infected patients are more likely to have unsuccessful TB treatment outcomes. This paper analyses the demographic and clinical characteristics of new TB patients with unsuccessful treatment outcomes, as well as factors associated with unsuccessful treatment outcomes for HIV co-infected patients.

Methods: A cross-sectional retrospective record review of routinely collected data for new TB cases registered in the Free State provincial electronic TB database between 2009 and 2012. The outcome variable, unsuccessful treatment, was defined as cases ≥ 15 years that 'died', 'failed' or 'defaulted' as the recorded treatment outcome. The data were subjected to descriptive and logistic regression analyses.

Results: From 2009 to 2012 there were 66,940 new TB cases among persons ≥ 15 years (with a recorded TB treatment outcome), of these 61% were co-infected with HIV. Unsuccessful TB treatment outcomes were recorded for 24.5% of co-infected cases and 15.3% of HIV-negative cases. In 2009, co-infected cases were 2.35 times more at risk for an unsuccessful TB treatment outcome (OR: 2.35; CI: 2.06-2.69); this figure decreased to 1.8 times by 2012 (OR: 1.80; CI: 1.63-1.99). Among the co-infected cases, main risk factors for unsuccessful treatment outcomes were: ≥ 65 years (AOR: 1.71; CI: 1.25-2.35); receiving treatment in healthcare facilities in District D (AOR: 1.15; CI 1.05-1.28); and taking CPT (and not ART) (AOR: 1.28; CI: 1.05-1.57). Females (AOR: 0.93; CI: 0.88-0.99) and cases with a CD4 count >350 (AOR: 0.40; CI: 0.36-0.44) were less likely to have an unsuccessful treatment outcome.

Conclusions: The importance of TB-HIV/AIDS treatment integration is evident as co-infected patients on both ART and CPT, and those who have a higher CD4 count are less likely to have an unsuccessful TB treatment outcome. Furthermore, co-infected patients who require more programmatic attention are older people and males.