



# A regimen containing bedaquiline and delamanid compared to bedaquiline in patients with drug-resistant tuberculosis

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**A bedaquiline–delamanid combination regimen in drug-resistant tuberculosis patients with poor prognostic factors showed comparable efficacy and safety to those in a bedaquiline-based regimen**  
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## ABSTRACT

There are limited data on combining delamanid and bedaquiline in drug-resistant tuberculosis (DR-TB) regimens. Prospective long-term outcome data, including in HIV-infected persons, are unavailable.

We prospectively followed up 122 South African patients (52.5% HIV-infected) with DR-TB and poor prognostic features between 2014 and 2018. We examined outcomes and safety in those who received a bedaquiline-based regimen (n=82) compared to those who received a bedaquiline–delamanid combination regimen (n=40).

There was no significant difference in 6-month culture conversion (92.5% *versus* 81.8%; p=0.26) and 18-month favourable outcome rate (63.4% *versus* 67.5%; p=0.66) in the bedaquiline *versus* the bedaquiline–delamanid combination group, despite the latter having more advanced drug resistance (3.7% *versus* 22.5% resistant to at least five drugs; p=0.001) and higher pre-treatment failure rates (12.2% *versus* 52.5% with pre-treatment multidrug-resistant TB therapy failure; p<0.001). Although the proportion of prolongation of the QT interval corrected using Fridericia's formula was higher in the combination group (>60 ms from baseline (p=0.001) or >450 ms during treatment (p=0.001)), there were no symptomatic cases or drug withdrawals in either group. Results were similar in HIV-infected patients.

A bedaquiline–delamanid combination regimen showed comparable long-term safety compared to a bedaquiline-based regimen in patients with DR-TB, irrespective of HIV status. These data inform regimen selection in patients with DR-TB from TB-endemic settings.