



CORRESPONDENCE

Treating all multidrug-resistant tuberculosis patients, not just bacteriologically confirmed cases

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India has responded to the epidemic of multidrug-resistant tuberculosis (MDR-TB) with a number of strategies. The guidelines on notification¹ and standards of care² introduced by the Revised National Tuberculosis Control Programme (RNTCP) are important contributions towards the appropriate diagnosis and treatment of MDR-TB patients. However, these guidelines apply only to bacteriologically confirmed MDR-TB, while those patients without bacteriological confirmation are usually not treated.

We acknowledge that the diagnosis of MDR-TB patients is difficult; it is even more challenging in the absence of bacteriological confirmation of MDR-TB. The global TB community has recognised the need for 'presumptive' treatment of clinically diagnosed MDR-TB patients prior to receipt of bacteriological confirmation,³ and World Health Organization guidelines recommend initiating treatment with a presumptive MDR-TB regimen for patient groups with a high likelihood of MDR-TB, while awaiting the results of conventional drug susceptibility testing (DST).³ However, immunocompromised individuals, including those with human immunodeficiency virus (HIV) infection, children, and those unable to provide specimens/sputum, should be considered for treatment with similar presumptive regimens.

To date, few studies have reported on the treatment outcomes of patients initiated on presumptive treatment.^{4,5} Nevertheless, a considerable number of patients are at risk of remaining without a bacteriologically confirmed diagnosis of MDR-TB, as this may not be easily achieved in immunocompromised patients, including those with diabetes or cancer. These individuals are at higher risk of mortality from MDR-TB,⁵ as they often fail to receive timely and appropriate treatment. The presumptive use of a standard regimen in such patients is still not permitted in India's RNTCP.

The Médecins Sans Frontières (MSF) programme in Mumbai, India, has been providing treatment and care for HIV-infected MDR-TB patients since 2006. Of 174 patients enrolled in the clinic over the 10 years from 2006 to 2015, 36 (20%) did not have bacteriological confirmation of MDR-TB. These patients received presumptive treatment based on a clinical diagnosis of MDR-TB and their TB treatment history, including his-

tory of exposure to second-line anti-tuberculosis drugs and history of contact with a confirmed MDR-TB case. Of the 36 patients, 19 (53%) had a successful treatment outcome. These 36 patients would not have met the criteria for MDR-TB treatment in the RNTCP.

Early and appropriate treatment may prevent mortality in those with paucibacillary MDR-TB, in rapidly deteriorating MDR-TB patients (including those with TB meningitis due to an MDR strain), in children, and in those co-infected with HIV⁵ who might otherwise be made to wait for appropriate treatment due to the unavailability of bacteriological confirmation. Caution must nevertheless be exercised in providing presumptive treatment in such patients,³ due to possible pharmacological interactions and adverse events during treatment. A standardised treatment algorithm including an appropriate regimen and regular monitoring of clinical, radiological and/or laboratory evaluations would therefore be helpful.

We recommend the design and inclusion of standardised presumptive treatment algorithms in the RNTCP recommendations for immune-compromised individuals and children with a high likelihood of MDR-TB, but who fail to produce sputum/specimens for laboratory confirmation. Promoting presumptive treatment would assist in reducing the global burden of MDR-TB.

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