EDITORIAL

Non-response to first-line anti-tuberculosis treatment and MDR-TB in India: the role of implementation research

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India's National Strategic Plan (NSP) 2017–2025 proposes bold strategies to rapidly reduce tuberculosis (TB) incidence and mortality by 2025, 5 years ahead of the World Health Organization's End TB targets and Sustainable Development Goals to attain the vision of a TB-free India.¹ Non-response to first-line anti-tuberculosis treatment (FL-ATT) and multidrug-resistant TB (MDR-TB) are challenges to achieving TB elimination. Consideration of the main elements of the NSP points the way towards the main areas of implementation research relevant to overcoming these challenges.

In India, only a quarter of the estimated incident cases of MDR- and rifampicin-resistant TB (RR-TB) (147 000 in 2018) are notified.² To address the challenge of missing MDR/RR-TB cases, the Revised National Tuberculosis Control Programme (RNTCP) has moved from notification at treatment to notification at diagnosis.¹ Notification is incentivised by providing quality drugs and diagnostics free of cost also to patients accessing care from the private sector.² Monitoring of over-the-counter sales of anti-tuberculosis drugs was also initiated to facilitate notification.² The programme is also making special efforts for reaching the unreached through active case finding campaigns, focusing on clinically, socially and occupationally vulnerable populations and shifting from passive to active case finding in selected populations.² Implementation research can help to establish the role of these different measures in increasing notifications.

Drug susceptibility testing (DST) is currently being offered to new TB patients who remain smear-positive during follow-up, to previously treated patients, those who are human immunodeficiency virus (HIV) positive and those with known MDR-TB contact at the start of treatment. The programme is currently scaling up its policy of 'Universal DST', whereby all those who are diagnosed with TB will receive a minimum of DST for RMP and isoniazid.² In the interim period, it may be important to prioritise screening for first-line anti-tuberculosis drugs, at least for RMP, among new

TB patients with diabetes, alcohol use, irregular treatment history, migrant workers and genetically susceptible populations, as is being done for childhood TB patients, people with extra-pulmonary TB, sputum smear-negative individuals with X-ray suggestive of TB and referrals from the private sector. Such screening should be evaluated through implementation research to assess its feasibility, acceptability and effectiveness.

The recently established India TB Research Consortium (ITRC) promotes research in four broad thematic areas, including implementation research (the others being diagnostics, therapeutics and vaccines).³ To complement the epidemiological research needed to quantify the burden of TB (including MDR-TB) in various populations and high-risk groups, implementation research can help in identifying better tools for measuring the TB/MDR-TB burden and developing the best programmatic models for surveillance.³ Information and Communication Technology platforms will provide data sources for operational research on improving TB notification, treatment adherence and engaging private practitioners.³ With respect to national guidelines on the control of airborne infection in health care settings, in the community and in homes, operational research can help assess the effectiveness of policy implementation in preventing transmission of TB/MDR-TB in the community.

References

- 1 Central TB Division, Directorate General of Health Services. Revised National Tuberculosis Control Programme: annual report. TB India 2017. New Delhi, India: Government of India, 2017. <https://tbcindia.gov.in/WriteReadData/TB%20India%202017.pdf>. Accessed February 2018.
- 2 Central TB Division, Directorate General of Health Services. Revised National Tuberculosis Control Programme: India TB report 2018. New Delhi, India: Government of India, 2018. <https://tbcindia.gov.in/WriteReadData/l892s/6250311444TB%20India%20Report%202018.pdf>. Accessed February 2018.
- 3 Indian Council of Medical Research. India TB Research Consortium. New Delhi, India: ICMR, 2017. <http://bmi.icmr.org.in/itrc/index.php>. Accessed February 2018.

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