EDITORIAL

Tackling latent tuberculous infection as part of a strategy for achieving tuberculosis elimination targets in China

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In 2015, the World Health Organization (WHO) set ambitious post-2015 goals to end tuberculosis (TB).¹ This year, the China State Council issued the 'Thirteenth Five-year Plan of TB Care and Prevention' to drive the TB care and prevention agenda for the next 5 years, with a goal to reduce TB incidence from the current 67 per 100000 population to 58/100000 by the end of 2020.² China's plan addresses the insufficiency of passive case finding by adopting radical active case-finding (ACF) strategies for close contacts of infectious TB patients, persons living with the human immunodeficiency virus, diabetes mellitus (DM) and other high risk conditions by active screening and monitoring.

As one of the countries with the highest TB burdens, with nearly 10% of the world's annual reported TB cases, the disease remains a major public health problem despite laudable progress during the past decades.³ In 2015, the largest prospective multicentre latent tuberculous infection (LTBI) study in China was conducted among over 21000 persons from rural China, establishing an LTBI rate of 13–20%.⁴ This large reservoir represents a massive number of potential future TB cases, as 5–10% of persons with LTBI will develop TB during their lifetime.

Syndemics driving TB incidence will also exacerbate the problem. In China, DM is becoming a major epidemic, with 10.9% of adults with DM and 35.7% with pre-DM;⁵ 17% of all TB cases nationwide are attributed to DM.⁶ If the prevalence of DM continues to increase at the present rate, it is likely to severely hamper attempts to reduce TB incidence.⁷ Further, as in persons with both TB and HIV who are not accessing antiretroviral treatment, treatment outcomes, including treatment response, relapse and death, are significantly worse among TB patients with than in those without DM.^{8,9} Findings from a recent study in Denmark indicated that the risk of TB is higher during the first 2 years following the diagnosis of DM, whereas no significant effect on TB incidence was detected thereafter.¹⁰

This finding may open up a new entry point to reducing the burden of DM-associated TB by testing for and treating LTBI immediately after the diagnosis of DM. It is against this background that a group of TB experts recently met in Beijing to initiate discussion on integrating testing and treatment of LTBI as a part of China's ACF strategies. Although a large diversity of

opinions was expressed by representatives from different provinces and cities, underlining the diversity of TB epidemiology in China, an overarching consensus was reached on the need to identify LTBI among high-risk populations. Screening and ACF interventions should target populations with the highest TB incidence and should be adapted to local epidemiology. Furthermore, additional focus is needed on individuals with accumulated or multiple risk factors, including those who are close contacts of cases with infectious TB. For those with LTBI, applying preventive treatment immediately or using vigilant follow-up should be carefully assessed according to individual circumstances. With the available evidence and recommendations from the international community, China needs national operational guidelines on targeted diagnosis and treatment of LTBI to ensure better strategic and sustained success.

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