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Letter to the Editor

Impact of COVID-19 pandemic on tuberculosis care in India

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We reflect on the current and anticipated future impact of the coronavirus disease 2019 (COVID-19) pandemic on tuberculosis (TB) control in India. According to the latest figures from the World Health Organization (WHO), India accounts for a quarter of all global and multidrug-resistant TB (MDR-TB) cases [1]. Many cases remain undiagnosed, or, when diagnosed, they are not treated or appropriately notified. As a result only 58% of overall estimated new and relapsing TB cases are notified in India [1]. Despite concerted efforts driven mainly by the United Nations sustainable development goals, the WHO's End TB Strategy and the Government of India's National Strategic Plan to eliminate TB by 2025, the incidence of TB has been declining slowly. We have previously reported a high prevalence of latent TB infection in the Nagpurian population [2]. Risk factors such as poverty, low socioeconomic status, malnutrition with impaired immunity, poor housing and inadequate ventilation were significantly associated with developing latent TB and active case conversion.

Since the nationwide lockdown commenced on 25 March 2020, the number of COVID-19 cases in India has continued to surge. The number of confirmed cases of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection rose to 566 840 with 16 893 deaths as of 30 June 2020, making it the country with the fourth highest number of reported cases [3].

As a result of current shifts in economic and political priorities towards COVID-19 containment, it is our contention that national efforts to tackle TB are likely to be adversely affected. In terms of economic impact, an estimated 140 million Indian people have already lost their jobs during the current crisis. Lost earnings have been particularly harmful to the most marginalized and impoverished communities, bolstering poverty and malnutrition further, both of which are major risk factors that predispose to TB in rural and urban communities. As India continues to battle the coronavirus pandemic, the current lockdown is already leading to debilitating effects on TB services, with limited access to healthcare and antituberculous drugs as well as disruption of treatment services. The Stop TB Partnership modelling analysis has assessed the potential effects of lockdown on TB incidence and mortality over the next 5 years in high-burden settings. In the case of India, lockdown has resulted in a striking 80% reduction in TB notification rates [4].

Consequently, it is anticipated that a huge number of cases will remain undiagnosed and untreated, further fueling TB transmission rates among household contacts. A report suggests that India will need to manage 232 665 excess TB cases for every month of lockdown and 71 290 excess TB deaths, which is significantly higher compared to excess cases predicted for other high-burden countries such as Kenya ($n = 3980$) and Ukraine ($n = 1058$) [4]. In terms of MDR-TB, and considering an incidence of 5% (out of overall reported TB cases in India), India will see an excess 11 663 MDR-TB cases per month during the pandemic. It is therefore essential that in addition to the restoration of normal TB services, supplementary measures are instigated, with a focus on reducing the prevalent pool of TB in endemic settings. Such measures may involve a combination of intensive community engagement, maintaining awareness of the importance of TB services and enhanced active case-finding efforts, including rapid scaling up of contact tracing where possible to compensate for missed diagnoses imposed by the lockdown. Additional innovative approaches such as the use of digital technology and other tools will be encouraged.

In terms of social distancing, clearly challenges lie ahead. TB patients often live in crowded conditions with poor hygiene, which increases their risk of getting COVID-19. It is thus vital that TB patients be isolated to minimize the occurrence of severe coinfections in view of their depressed immunity and hospitalizations. Such enhanced social distancing measures should be targeted more

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clearly towards those with MDR-TB. While current available literature on COVID-19 infection in TB patients remains limited, it is anticipated that coinfections will lead to poorer treatment outcomes. Concerningly, recent reports suggest that influenza coinfection may be capable of exploiting and altering innate immune defense mechanisms, thereby exacerbating pulmonary TB and promoting the likelihood of developing secondary bacterial infections [5].

Thus, a robust integrated effort from policy makers, from state and national government and from non-governmental organizations is now needed to reduce the burden of TB by urgently maintaining continuity of essential services, accelerating surveillance of vulnerable populations and asymptomatic contacts to identify high-risk groups and performing high-quality molecular epidemiologic research.

Transparency declaration

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