Letter

Impact of COVID-19 pandemic on tuberculosis care in India

Aliabbas.A. Husain [1], Tanya M. Monaghan[2,3] , Rajpal Singh Kashyap [1#]

[1]Research Centre, Dr G.M. Taori Central India Institute of Medical Sciences (CIIMS), Nagpur (Maharashtra), India

[2]NIHR Nottingham Biomedical Research Centre, Nottingham University Hospitals NHS Trust and the University of Nottingham , Nottingham, UK.

[3]Nottingham Digestive Diseases Centre, School of Medicine, University of Nottingham , Nottingham, UK.

#**Correspondence**

Rajpal Singh Kashyap

Research Centre,

Dr. G. M Taori Central India Institute of Medical Sciences,

88/2, Bajaj Nagar, Nagpur, India.

E-mail: raj_ciims@rediffmail.com

Telephone: +91-712-2233381/2236441

Fax: 0712-2236416

To the Editor,

We reflect on the current and anticipated future impact of the COVID-19 pandemic on tuberculosis (TB) control in India. According to the latest figures from the WHO, India accounts for a quarter of all global & multidrug-resistant (MDR) TB cases [1]. Many cases remain undiagnosed, or when diagnosed 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 UN's Sustainable Development Goals, WHO End TB Strategy and the Government of India's National Strategic Plan (NSP) to eliminate TB by 2025, the incidence of TB has been declining slowly.We have previously reported a high prevalence of latent TB 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 March 25th, the number of COVID-19 cases in India has continued to surge. The number of confirmed cases of SARS-CoV-2 infection rose to 566,840 with 16,893 deaths as of June 30th, making it the country with the fourth highest number of reported cases. [3]

Due to 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 coranovirus pandemic, the current lockdown is already leading to debilitating effects on TB services with limited access to health care, anti-tuberculous drugs, and disruption of

50 treatment services. The Stop TB partnership modelling analysis has assessed the potential
51 effects of lockdown on TB incidence and mortality over the next 5 years in high burden
52 settings. In the case of India, lockdown has resulted in a striking 80% reduction in TB
53 notification rates [4].
54 Consequently, it is anticipated that a huge number of cases will remain undiagnosed, and
55 untreated, further fueling TB transmission rates among household contacts. A report suggests
56 that India will need to manage 232,665 excess TB cases for every month of lockdown, and
57 71,290 excess TB deaths which is significantly higher compared to excess cases predicted for
58 other high burden countires such Kenya (3,980) and Ukraine (1,058) [4]. In terms of multidrug
59 resistant TB (MDR-TB), and considering an incidence of 5% (out of overall reported TB
60 cases), India will see an excess 11,663 MDR-TB cases per month during the pandemic. It is
61 therefore essential that in addition to the restoration of normal TB services, supplementary
62 measures are instigated, with a focus on reducing the prevalent pool of TB in endemic settings.
63 Such measures may involve a combination of intensive community engagement, maintaining
64 awareness of the importance of TB services and enhanced active case-finding efforts, including
65 rapid scale-up of contact tracing where possible to compensate for missed diagnoses imposed
66 by the lockdown. Additional innovative approaches such as the use of digital technology and
67 other tools will be encouraged.
68 In terms of social distancing, clearly challenges lie ahead. TB patients often live in crowded
69 conditions with poor hygiene, which increases their risk of getting COVID-19. It is thus vital
70 that TB patients can be isolated to minimize the occurrence of severe co-infections in view of
71 their depressed immunity & hospitalizations. Such enhanced social distancing measures should
72 be targeted more clearly towards those with MDR-TB.While current available literature on
73 COVID-19 infection in TB patients remains limited, it is anticipated that co-infections will
74 lead to poorer treatment outcomes. Concerningly, recent reports suggest that influenzal co-

infection 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, state and national government and NGOs is now needed to reduce the burden of tuberculosis through urgently maintaining continuity of essential services, accelerated surveillance of vulnerable populations and asymptomatic contacts to identify high-risk groups, and through gathering high quality molecular epidemiologic research.

Authors Contribution

Conceptualization: Husain AA, Monaghan TM, Kashyap RS. **Writing original draft:** Husain AA. **Writing – Review & Editing:** Monaghan TM, Kashyap RS

Conflict of Interest

TM is a consultant advisor for CHAIN Biotechnology.

Funding

No external funding was received for the present work

Acknowledgement

Authors acknowledge support of Dr. Amit Nayak and Mr. Rupam Nashine in data collection for manuscript.

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