



Coronavirus Disease 2019 (COVID-19)

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Operational Considerations for Maintaining Essential Services and Providing Prevention, Care, and Treatment for Tuberculosis (TB) in Low-Resource non-US Settings During the COVID-19 Pandemic

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Introduction





Despite being preventable and curable, tuberculosis (TB) remains the world's deadliest infectious disease, taking the lives of 1.5 million persons each year. One-fourth of the world's population—nearly 2 billion people—are infected with TB. In 2018, 10 million people, including 1.1 million children, became ill with TB disease (1). The global community has made substantial progress in the fight to end TB, and it is critical that the progress made in TB prevention, care, and treatment is not reversed by the COVID-19 pandemic.

Modeling highlights the potentially devastating effects of the COVID-19 pandemic on global TB programs, which could result in an additional 6.3 million TB cases and 1.4 million TB deaths by 2025 (2). Furthermore, a 25% global reduction in TB detection over 3 months could lead to a 13% increase in TB deaths, setting TB mortality levels back to what they were 5 years ago (3).

Increased demand for healthcare services due to COVID-19 can challenge health facilities and healthcare systems. Previous global and regional health emergencies, like Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Ebola virus disease, negatively impacted TB care (4-6). These challenges often resulted in disruption of TB care services, delayed diagnosis and treatment, and increased illness and death for patients with TB. It is therefore imperative to maintain continuity of essential TB care services during the COVID-19 pandemic.

This document summarizes operational considerations to assist TB programs, health service managers, and healthcare personnel in maintaining continuity of essential TB services in low-resource, non-US settings during the COVID-19 pandemic (7-9).

TB and COVID-19 in Adults and Children

COVID-19 and TB share some common clinical features. Exposure to both can occur simultaneously, and the presence of comorbidities can result in poor outcomes for both diseases. A positive test result for COVID-19 does not rule out the presence of TB disease, particularly in high TB burden settings. In these settings, implementation of simultaneous testing for both diseases is [recommended](#)   by the [World Health Organization](#)   (WHO) for persons with respiratory symptoms (7).

Although data on COVID-19 and TB are limited, there is mounting evidence that patients with chronic respiratory diseases, including TB, are at increased risk of severe COVID-19 illness and death (10-13). There are very limited data on the risk and severity of COVID-19 in children with co-morbidities such as TB, however, it is possible that TB could increase the risk of severe COVID-19 disease in children, as it appears to do in adults. Therefore, children who have TB and are infected with COVID-19 should be monitored for signs of severe disease.

In countries or settings with a high incidence of TB, the Bacille Calmette-Guerin (BCG) vaccine can prevent severe forms of TB in children, including TB meningitis. There have been reports of this vaccine being diverted from countries and settings with a high incidence of TB to protect other populations from infection with COVID-19, even though there is no evidence that BCG offers such protection (14). Childhood immunization programs in these countries and settings should pursue dedicated stocks of BCG to protect their children from severe forms of TB.

Ensuring Continuity of Quality TB Services

To protect the progress made through global efforts and investments in TB, it is important that TB programs ensure continuity of TB services including the following:

TB Case Finding and Diagnosis

- When implementing active TB case-finding strategies and community-based testing, follow local guidance on movement restriction, physical distancing measures, and continuity of operations to protect healthcare workers (HCW) from COVID-19. Maximize the use of mobile and virtual [telehealth](#) platforms for conducting TB case-finding activities and contact investigations.

TB Treatment

- Limit health facility visits to those needing urgent medical attention to reduce patients' and healthcare providers' potential exposure to COVID-19. For patients requiring a facility visit, all efforts should be made to ensure physical distancing, streamline patient flow, stagger clinic appointments, and provide TB services in dedicated spaces that are physically separated from areas with COVID-19 patients.
- Consider moving TB services into the community to reduce risk of COVID-19 exposure and infection in health facilities (15).
- Ensure provision of TB treatment for all TB patients, including those in quarantine and those suspected or confirmed with COVID-19.
- To avoid extra visits to healthcare facilities, distribute a multi-month supply of TB medicines and offer community-based drug dispensing for TB treatment and for persons receiving TB preventive treatment (TPT).
- Whenever possible, consider using [telehealth](#) (phone calls, SMS, or virtual options for patient contact) for routine or non-urgent consultations, paying careful attention to patient privacy and confidentiality.
- Use community-based treatment monitoring and digital adherence interventions such as mHealth, video directly observed therapy (DOT), and medication event reminder monitoring systems (MERM) to monitor TB treatment and associated adverse events.

TB Preventive Treatment

- TPT is an essential TB service for persons living with HIV and children under 5 years of age who have had contact with a person with TB. TB programs may continue to scale up this life-saving treatment during the COVID-19 pandemic.

- Differentiated service delivery models (providing more intensive care to patients initiating therapy or poorly adherent to therapy and less intensive care to well established patients) may be used for community distribution and adherence support while following local infection control and physical distancing policies.
- Ensure that telephone or SMS systems are in place for adverse event monitoring (9).

Safety in Healthcare Settings

- Patient-centered outpatient care and community-based care are preferred over hospital treatment to reduce potential disease transmission.
- It is possible that some patients with COVID-19 infection will seek care at TB clinics. Respiratory infection control measures, in which TB programs are well-versed, are of even greater importance now, as are general precautions, such as frequent handwashing, disinfecting of surfaces, and avoiding touching one's face, to ensure the safety of HCWs and patients accessing care at health facilities.
- Implement respiratory infection control measures for both COVID-19 and TB, including:
 - Triage, early identification, and separation of symptomatic patients
 - Fast tracking or expedited service
 - Implementation of droplet and contact precautions
 - Frequent handwashing
 - Implement [environmental engineering controls](#), for example, physical barriers and dedicated pathways to guide symptomatic patients through triage areas, remote or outdoor triage stations for patients with respiratory symptoms
 - Use of personal protective equipment ([PPE](#))
- Refer to [CDC](#) and [WHO](#) [🔗](#) technical guidance on infection prevention and control (IPC) measures in the context of the COVID-19 pandemic (8).














Supply Chain Management

- To ensure that national TB programs have an adequate supply of TB medicines and diagnostic supplies during the COVID-19 pandemic, actively monitor supply chain management is needed to avoid interruptions.
- Order commodities as early as possible to avoid possible delivery delays (7).

Combating Stigma

- Stigma and fear around communicable diseases like COVID-19 and TB hamper an effective public health response. Interventions that can help combat stigma include building trust in reliable health services, showing empathy with those affected, promoting understanding of the diseases themselves, and promoting adoption of effective, practical control measures so people can help keep themselves and their families and communities safe (16).

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