

## **Collaboration in TB and COVID-19 control in Moscow**

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Dear Editor,

We read with interest the contributions on TB and COVID-19 in the *Journal*,<sup>1-8</sup> and we believe that the experience of TB programmes in containing the TB epidemic will be useful in combating the COVID-19 pandemic.

In Moscow, 1,226 COVID-19 cases were notified as of 31 March 2020: 6 have died and 28 have recovered. Robust measures are being put in place in Moscow and across Russia to prevent an explosive increase of COVID-19 infection.

Moscow has a lower TB incidence than other regions of the Russian Federation, and its TB indicators are strongly influenced by migration: 56.2% of new TB cases come from outside Moscow. Between 2016 and 2019 the TB notification rate decreased from 28.5 to 22.6 per 100,000 population (from 3,528 to 2,849 new TB cases) and the TB mortality rate decreased from 2.5 to 1.8 per 100,000 population (from 311 to 219 deaths) as the result of the TB control and elimination interventions implemented in 2012.<sup>9</sup>

Unfortunately, the COVID-19 pandemic could have a significant impact on the progress achieved, particularly among TB patients with HIV co-infection or other comorbidities. In Moscow, 40% of TB patients have chronic obstructive pulmonary disease (COPD).

Furthermore, the TB notification rate of individuals living with HIV infection is about 800/100,000 HIV-infected (in the whole of the Russian Federation it is approximately 1700/100,000 HIV-infected). However, the presence of effective health services for the prevention, diagnosis and treatment of TB patients in Moscow is a resource that could be used against COVID-19.

First, the airborne infection control (administrative, environmental and personal protection) measures implemented to prevent TB spread in hospitals<sup>10</sup> will be useful to also limit the spread of SARS-CoV-2 at the institutional level (although we note that the virus is much more infectious than TB). Second, TB institutions are the backbone of the clinical response to COVID-19 due to the availability of beds equipped with oxygen therapy and ventilators for intensive care.

However, it is of paramount importance to prevent the spread of COVID-19 into in- and out-patient TB facilities by having separate buildings and tracks under strict infection control measures. These measures have been strengthened in all Moscow TB units, all health staff have been trained and provided with high-quality personal protective equipment, and hand disinfection facilities, and body temperature is checked as part of the triage procedure at the building entrance.

Quarantine, social distancing and a reduction in internal movement will limit the COVID-19 spread, although it is likely to create stress and economic problems in the general population, which, in turn, might cause reactivation of latent TB infection and active TB cases in future.

Moscow TB facilities are organised according to territorial criteria to provide both primary care and initial management of people (and their contacts) with respiratory infections and specialised services to patients with TB or other severe respiratory diseases. More than 40 mobile teams (including a doctor and a nurse) have been organized in collaboration with the Moscow emergency services, utilizing the specialist staff and vehicles of the Moscow TB Control Center to ensure daily visits to contacts of COVID-19 patients and to people with risk factors (especially those who have returned from countries with a high incidence of COVID-19).

At the same time, all the basic actions necessary for quality TB management (prevention, diagnosis and treatment) are being maintained as per federal and city standards and guidelines. As of 2 April, three TB patients co-infected with COVID-19 have been identified (two non-residents and one Moscow resident and two have HIV infection). All patients are currently managed in a special 'infectious box' (Figure) with reinforced precautions, and all

contacts have been quarantined for 14 days (there are rooms available for a total of 22 TB/COVID-19 co-infected patients).

The Moscow TB services are currently dealing with two epidemics—one slow (TB) and the other rapid (COVID-19). The challenge is to recognise the similarities, but also to adapt our medical and socio-economic interventions to address the differences.

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