



TB and COVID-19 in migrants- Why we need to focus on both

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1 TB and COVID-19 in migrants- Why we need to focus on both

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27 In the board game called “Pandemic”, players form a team of medical and para-medical staff
28 attempting to control ongoing outbreaks concurrently. It is a cooperative game and winning requires
29 careful planning, attention to multiple events simultaneously, and the ability to adapt swiftly. Whilst
30 in reality, the prevention and mitigation of pandemic also require resources and involve personal and
31 public tragedies, economic effects, political needs, overcoming "pandemic fatigue", and international
32 cooperation, the game does have important lessons.

33

34 Disease outbreaks and pandemics have been characterized by periodical occurrence throughout
35 history, and can be accelerated by population density, lower level of hygiene, travel, and migration.

36 In addition, a number of countries have more than one concurrent epidemic, as illustrated by the
37 ongoing Ebola outbreak [1]

38

39 Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has been spreading highly efficiently
40 since the first months of 2020 and disproportionately affects populations living in overcrowded
41 conditions [2]. Therefore, migrants and those who are detained or do not have stable housing are
42 more susceptible to SARS-CoV-2 [3,4]. The morbidity and mortality of COVID-19 can be significant,
43 particularly in settings where medical systems are already fragile or inefficient or among migrants,
44 whose eligibility to medical care is limited [5]. In addition, migrants may be stranded in host
45 countries with increased vulnerability because of unemployment, social instability, and loss of
46 income, which may decrease their *a priori* limited access to food, housing, and healthcare services.
47 As migrants are often ineligible for social benefits and lack health or economic safety nets, they may
48 be forced to work even when they are ill or under isolation or quarantine, sometimes to obtain basic
49 necessities. Furthermore, enforcing travel restrictions by national authorities can potentially
50 decrease migrants' access to medical care by requirements of documents on their way to the clinic or
51 by aggravating the attitudes of the authorities due to their unstable legal status.

52

53 *Mycobacterium tuberculosis* and SARS-CoV-2 share some commonalities, including the respiratory
54 transmission route and several risk factors of the patients, such as older age and pre-existing
55 pulmonary diseases. Migrants are at a greater risk for *Mycobacterium tuberculosis* infection because
56 of the higher incidence in countries of origin or adverse circumstances during transit and arrival in
57 the country of destination [6]. New evidence, including mathematical modelling [7], demonstrates
58 that tuberculosis (TB) incidence is predicted to significantly increase as a result of direct and
59 particularly indirect impacts of COVID-19 [8,9]. Furthermore, although current evidence is still scarce
60 and ambivalent, TB--COVID-19 co-infection may lead to worse treatment outcomes [10,11], and this,
61 together with the higher incidence, could lead to increased TB mortality and morbidity.

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62 Healthcare systems globally have been allocating resources to control the rapid spread of SARS-CoV-
63 2. Consequently, medical personnel, equipment, and materials have been diverted to diagnose, treat
64 and research COVID-19. In line with the re-prioritisation, the gap in TB care has widened. Whilst
65 medical attention and resources have decreased [12], travel restrictions and lock downs have also
66 hindered individuals from diagnosis and treatment for TB [13]. Additionally, border closures can
67 interfere with the global TB drug distribution chain, which in turn increases the risk for the
68 development of drug resistance. Further, the global distribution of anti-TB drugs is being disrupted,
69 which risks the interruption of necessary continuous and appropriate treatment regimens and may
70 increase the risk for developing drug resistance. Finally, the BCG vaccine (the only vaccine licenced
71 against TB) is being sought for its potential protection against SARS-CoV-2 infection ([14,15].

72

73 While the scientific community is gaining experience in understanding and controlling COVID-19,
74 lessons from the TB field can be used in the fight against COVID-19 [16]. Practitioners who work in
75 TB programs have gained wide experience in treating vulnerable and hard-to-reach populations.
76 Many have already established effective communication channels with the foreign community,
77 reduced knowledge gaps, built trust, and established effective mechanisms for support and
78 involvement of migrants. The medical expertise and current infrastructure which has been
79 established for TB-care is a valuable resource which can also be used to respond and control for
80 COVID-19 among migrants. Integration of TB and COVID-19 efforts among the migrants could have a
81 synergistic effect, as illustrated through a few country examples.

82

83 In India, whilst the ongoing COVID-19 pandemic has stressed healthcare systems and interrupted TB
84 programs, there have also been considerable synergies found. For example, district health officers
85 have systematically visited COVID-negative patients with respiratory symptoms to test them and
86 their contacts for TB, often using GeneXpert and TrueNat tests. In Switzerland, a low-TB incidence
87 county, contact tracing for TB has continued with less cases notified than in the last 10 years and the
88 need for continuous care for patients with TB has been highlighted by the Swiss National Lung
89 Association [17]. COVID-19 contact tracing has been scaled-up extensively by cantonal authorities
90 for all individuals with infection according to recommendations from the Federal Office of public
91 health. In Israel, another low TB incidence country, the Ministry of Health issued guidelines for the
92 continuum of care for TB patients very soon after the detection of the first COVID-19 patient in Israel
93 and new technologies, including video observed therapy (VOT) were introduced to support TB
94 treatment during lockdown. However, in all three settings, a shifting of resources from TB to COVID-
95 19 has also been observed, and loss of key trusted individuals, such as for example the Eritrean

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96 community worker in Tel Aviv who acted as a 'bridge' to his community, has had a negative effect on
97 TB care.

98

99 After one year since the detection of this new and likely persistent pathogen, we need to ensure
100 sustainable continuation of TB care in all countries [18]. The Union and its TB and Migration Group
101 have therefore issued recommendations regarding TB and COVID-19 among migrants. They
102 emphasise a strong need to continue to pay attention to TB control, to ensure early and appropriate
103 diagnosis and care of COVID-19 and TB for all, including migrants, and to ensure that TB care in
104 migrants is not neglected so that the control of both diseases can be optimised or even synergised,
105 where appropriate.

106

107 Indeed, it is harder to tackle more than one epidemic at once, but like the game "Pandemic",
108 neglecting a disease to focus solely on another means losing in the first turn.

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