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The war in Ukraine and potential consequences for the TB epidemic in Europe

Dear Editor,

We read with interest the recent article describing clinical standards for the management of TB infection,¹ which provides a comprehensive overview of the important stages in the cascade of care for people infected by *Mycobacterium tuberculosis*. The appropriate translation of current scientific evidence into routine clinical practice can significantly reduce the risk of TB disease and also prevent the long-term consequences of TB infection (TBI).²

Unfortunately, the war in Ukraine (as for all wars) affects the care of patients and the efficiency of healthcare systems in the area, including both Eastern and non-Eastern European countries. The high incidence of TB, TB-HIV co-infection, and multi-drug-resistant TB (MDR-TB) in the region, raises serious concerns on the present and future management of individuals of all ages with TBI, a proportion of whom have active TB disease. Disruption to care is likely to amplify human suffering and the already existing disparities in healthcare, and also risks increasing the burden of drug resistance. The war in Ukraine will also affect the neighbouring countries where Ukrainians refugees will migrate to escape the war (according to UN estimates this will rise to 4–5 million people in the coming weeks). TB does not respect borders, and this large movement of people suffering from the horrible consequences of war (e.g., stress, under-nutrition, cold weather and sleep deprivation) will contribute to the spread of TB, MDR-TB, COVID-19 and other diseases throughout Europe.³

The cascade of care for patients with TB disease, which requires effective clinical and public health services, will be disrupted; new cases may not be diagnosed or promptly treated, therefore boosting TB transmission within the community. Furthermore, individuals with TBI will not be diagnosed and treated properly, risking many more future cases of TB. Several chronic medical conditions, which are known to increase the risk of TB disease, including HIV infection, diabetes mellitus and malnutrition, will be more difficult to manage in people exposed to the war or escaping it. In the medium term, an

increase in TB and MDR-TB incidence is to be expected in the region.³ A recent article highlighted the substantial global burden of MDR-TB (19.1 million people requiring care), the majority of which occurs in the WHO European Region, at an estimated prevalence of 2.8%, including 3,440,000 individuals with MDR-TB infection.⁴ According to the WHO Global TB Report, Ukraine and Russia (and other bordering countries, including Belarus and Moldova), are among the most affected.⁵ Although global attention is focused on the health and economic consequences on the people of Ukraine, it is also important to consider likely consequences in Russia, Belarus and Moldova, and countries hosting thousands of new refugees every day.

The war has tragically affected all aspects of life in Ukraine; and economic sanctions will aggravate the financial circumstances of many in Russia and Belarus. It is also expected that consequences of the ongoing conflict will be felt worldwide. The UN recently estimated that over 40 million new people have fallen below the poverty line as an immediate consequence of this war.⁶ While poverty is the most potent social determinant of TB, as history teaches us, the economic crisis, and the physical destruction caused by this tragic conflict, will affect health services.³ Furthermore, the ongoing COVID-19 epidemic interacts with TB and will likely aggravate health risks for the population and capacity issues for the health system.^{7–10}

Finally, war, insecurity, political and economic sanctions will combine to restrict the availability of diagnostic services and anti-TB drugs, further fuelling this humanitarian crisis. Together with the immediate need for peace, the global community should coordinate to provide all possible support (e.g., medicine and diagnostics tools, establishing humanitarian corridors and protection of health workers, etc.) to all affected individuals to limit the effects of this tragedy.

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<http://dx.doi.org/10.5588/ijtld.22.0162>

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