## PROSPECTS FOR CONTROL AND STRATEGY OF RISKS OF TUBERCULOSIS IN A COVID-19 PANDEMIC

Liliia Todoriko, Ihor Semianiv

Bukovinian State Medical University, Chernivtsi, Ukraine E-mail: igor\_semianiv@ukr.net, pulmonology@bsmu.edu.ua

**Introduction.** In its last year report, the WHO stated that latent tuberculosis infection (LTBI) is prevalent in a quarter of the world's population. It is assumed that the new strain of coronavirus SARS-CoV-2, causing a temporary immunosuppressive effect, activates a significant part of dormant infections and, in particular, this can significantly disrupt the current balance of control over the course of tuberculosis (TB) due to the activation of latently persistent mycobacterium tuberculosis (MBT) ... Such prospects can change the global situation not only in the healthcare sector, but, in general, affect the world economy in the context of a global recession.

The aim of study. Conduct a comprehensive analysis of the main epidemiological indicators and assess the prospects for the consequences of the interaction between COVID-19 and tuberculosis and strategize on the risks of the spread of mycobacterial infection in the context of the coronavirus pandemic.

Material and methods. We used access to a range of full-text and abstract databases and available statistical analysis reports.

In modern conditions, the issue of the interaction between COVID-19 and tuberculosis, which still ranks first among the causes of death from one infectious disease in the world, is extremely important, since this can have serious consequences for both TB patients and potentially underdiagnosed patients in around the world, especially in low and middle income countries. Modern social distancing measures in the face of a pandemic lockdown and staying at home make it especially difficult to implement a program to provide quality TB care, in particular:

- the level of timely diagnosis decreases, due to the similarity of respiratory syndromes for the two infections;
- control over the treatment of an active patient with tuberculosis worsens;

• the number of untimely detected adverse events and adverse reactions is growing in the dynamics of outpatient treatment of patients, in particular, in patients with multidrug-resistant tuberculosis (MDRTB);

• there is a tendency to an increase in the number of patients with uncontrolled and interrupted anti-tuberculosis treatment.

This could have serious implications not only for active TB patients, but potentially for underdiagnosed TB patients worldwide, especially in low- and middle-income countries where TB is endemic and medical services are poorly equipped. Today, under the prevailing conditions, the priority should be to ensure access to uninterrupted quality treatment and adequate care for every person who suffers from tuberculosis.

The analysis of available statistical data indicates that in almost all regions of Ukraine in the first half of 2020, the level of detection of cases of active TB, including relapses, decreased by 27.4% on average throughout the country. The same tendency for newly diagnosed cases - the level of detection decreased by 27.1%. It should be noted that in regions that are in a hard lockdown mode, this difference can be almost 50%. That is, the number of new TB cases detected has decreased by half.

The analysis showed that there is also a decrease in the level of diagnosis of TB and HIV comorbidity cases, on average in Ukraine - by 29.4%.

My own half-year experience shows that coronavirus infection most often causes TB progression with the development of disseminated, in particular, miliary forms, with a systemic response and the formation of complications such as pericarditis and pleurisy.



## Conclusions.

1. It is assumed that the epidemiological indicators for tuberculosis control will deteriorate for at least the next 5-8 years due to the COVID-19 pandemic.

2. During COVID-19, the priority should be to ensure the continuity of essential health services, including the implementation of national tuberculosis programs.

3. As relatively weak health care systems with a high burden of tuberculosis try to adequately respond to COVID-19, there is a significant risk that prevention and treatment programs for existing problematic infections will be disrupted.