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## **CURRENT SITUATION AND CHALLENGES OF TUBERCULOSIS EPIDEMIC IN UKRAINE**

Admission: The Ukrainian government, policy-makers and nongovernmental organizations have committed to support country progress towards achieving the goals of the Tuberculosis Action Plan for the WHO European Region 2016–2020. In 2018, Ukraine started implementing a new approach to TB control aimed at improving detection, treatment and financing of tuberculosis (TB) health-care services.

The aim of the study is to discover and investigate tuberculosis epidemic situation in Ukraine.

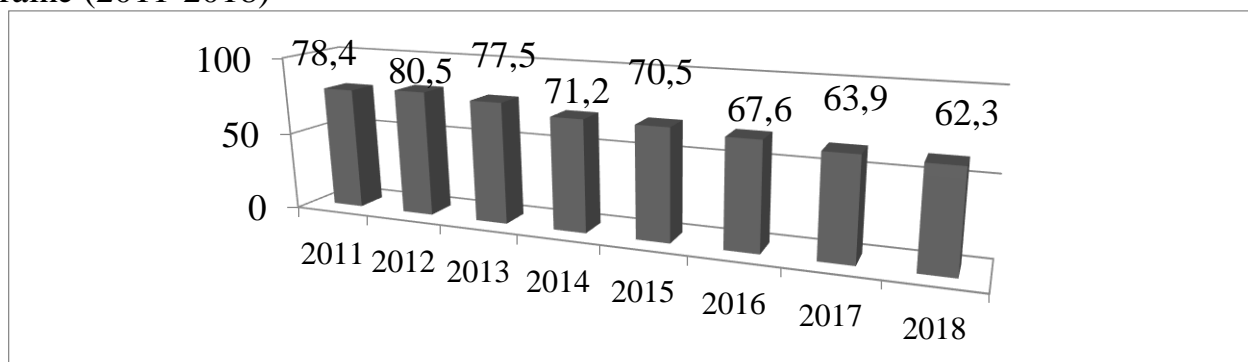
The research methods and material: to start with, tuberculosis (TB) an infectious disease that usually affects the lungs and is caused by acid-resistant mycobacteria from the Mycobacterium tuberculosis complex group - M. tuberculosis, M. bovis and M. africanum. Mycobacterium tuberculosis most often affects the respiratory system. It is characterized by inflammatory processes in the affected organs and systems and expressed by general intoxication of the organism.

High-risk groups for mycobacterium tuberculosis: HIV-infected; people who have recently been in contact with patients undergoing MBT, as confirmed by smear microscopy; persons with "minimal" changes in the lungs; patients with alcoholism; drug addicts; homeless; immigrants from regions with high TB incidence; persons with immunodeficiency; smokers (a slight increase in the risk of getting sick).

According to the WHO, 10% of latently infected people on average develop active TB, which means that the bacteria form isolated, nodular inflammation points, which the immune system can no longer control. As a weakened immune system is the prerequisite, an active infection often occurs in people, who suffer from serious, chronic illnesses such as HIV infection, drug addicts, or even in children. In about 90% of patients the TB bacteria affect the lungs. For these patients, there are two types of tuberculosis: the “open” or pulmonary-positive and “closed” or pulmonary-negative tuberculosis. In the case of open tuberculosis an inflammation developed inside the lungs that the immune system is not able to isolate, i.e., bring under control. This enables TB bacteria to be released through the respiratory tract (e.g., through coughing) and means that this type of tuberculosis infection is contagious. In fact, only a few droplets are already enough to spread the infection – for example, by being in the immediate vicinity of an infected person who had just coughed, sneezed or spat (even if only while speaking). In the case of closed tuberculosis, the opposite is the case, and there is no risk of infection as the inflammation is on the lungs’ periphery and not inside.

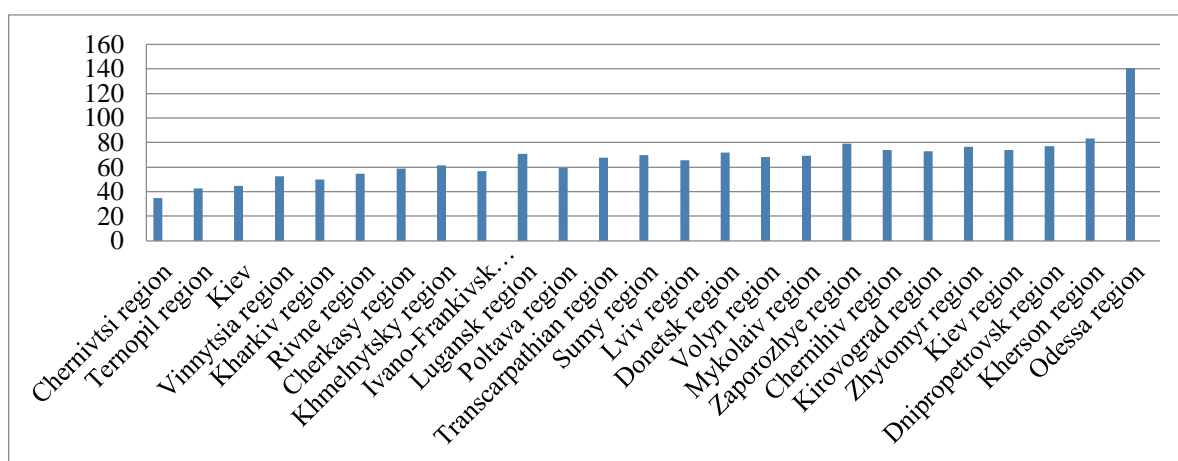
In Ukraine there is a disappointing epidemic situation with tuberculosis. Our country in the ranking of WHO ranks second in Europe in the priority of the fight against tuberculosis.

Figure 1. Dynamics of pulmonary tuberculosis incidence among the population of Ukraine (2011-2018)



\* according to the Center for Public Health of Ukraine

Figure 2. Dynamics of tuberculosis disease, including new cases and relapses in regions of Ukraine (2018, per 100 thousand populations)



\* according to the Center for Public Health of Ukraine

Particular attention is paid to the increase in cases of chemical resistant tuberculosis.

Chemical resistant tuberculosis (HRTB) is a form of tuberculosis in which the patient secretes mycobacterium tuberculosis resistant to one or more anti-tuberculosis drugs, which is confirmed by a laboratory method in a drug sensitivity test.

In 2014, Ukraine was ranked among the five countries with the highest number of death tolls, unfortunately this situation continues to this day. Of the features of the HRTB are: it is easier to pass from the patient to the healthy person, the period of treatment and hospitalization is longer, it is difficult to be cured and often ends lethal.

In May 2014, the World Health Assembly (Geneva, Switzerland) endorsed the Global Strategy to End TB for the period 2016-2035, which aims to overcome obstacles in the fight against tuberculosis, multidrug-resistant tuberculosis and co-infection HIV / TB, summarize the implementation of the Global Stop TB Plan, developed by the WHO Strategic Working Group on TB and agreed by all WHO Member States and implemented in 2005–2015.

The main objective of WHO's new Global TB Strategy by 2035 is to rid TB of the world with zero rates of morbidity, mortality and suffering from this disease.

Therefore, analyzing the state of lung tuberculosis, it should be noted that the disease is quite widespread in Ukraine and requires measures to overcome the epidemic.

Conclusions: It is necessary to increase the social and living standards of people. It is important to diagnose and do yearly check-ups. The isolation of patients with pulmonary tuberculosis with bacterial excretion should be done and the proper quality treatment of patients with tuberculosis should be conducted. Every person with tuberculosis has the right to be treated for his or her disease.

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