EPIDEMIOLOGICAL ANALYSIS AND PREVENTION OF PULMONARY TUBERCULOSIS IN THE POPULATION.

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Summary: Tuberculosis is a socially significant infection and is one of the ten leading causes of death in the world. In this regard, the World Health Organization (WHO) has developed a strategy for the elimination of tuberculosis for the period 2016-2035. The implementation of this strategy involves a thorough epidemiological assessment of the situation to identify regions and subpopulations with a high burden of the disease in order to achieve targets for reducing the incidence and mortality from this infection.

Keywords: epidemiology of tuberculosis, mycobacterium tuberculosis, poverty, opportunistic infections

Abstract: Tuberculosis is an infectious disease, one of the leading causes of human morbidity, which is one of the ten most common causes of death in the world and more often than other infectious agents (including HIV / AIDS) causes death. Tuberculosis is caused by the bacterium Mycobacterium tuberculosis, which is spread by exposure to the air from TB patients, such as coughing. The pathogen usually affects the lungs (pulmonary tuberculosis) but can also affect other organs (extrapulmonary tuberculosis). M. tuberculosis infection affects about a quarter of the world's population1. Anyone can get TB, but the disease mostly affects adults and is more common in men than in women; 90% of annual new cases occur in the 30 high-burden countries. Tuberculosis is a disease of poverty, and affected people often experience financial hardship, vulnerability and marginalization, stigma and discrimination. Tuberculosis is curable and preventable. Approximately 85% of TB patients can be successfully treated with a six-month treatment regimen; treatment also helps prevent further spread of the infection. Since 2000, TB treatment has helped save more than 60 million lives worldwide, but with universal health coverage (UHC) still lacking, millions more remain undiagnosed and untreated. Patients with TB infection may receive prophylactic treatment. In addition, taking multisectoral action to address the determinants of TB, such as poverty, malnutrition, HIV, smoking and diabetes, can reduce the number of new TB infections and diseases (and hence the number of deaths) each year. Breakthrough research advances (eg, a new vaccine) are needed to rapidly reduce global TB rates to levels achieved in low-burden TB countries, where the disease is often a thing of the past. The high information content of the QOL indicator is related to the multi-component nature of its constituent criteria. Thus, according to

the WHO, the following indicators determining the quality of human life are defined: - physical (strength, energy, fatigue, pain, discomfort, sleep, rest); - psychological (positive emotions, thinking, learning, memorization, concentration, self-esteem, appearance, negative experiences); - level of independence (daily activities, indicators, dependence on drugs and treatment); - social life (personal relationships, social value of the subject, sexual activity); - environment (welfare, safety, life, safety, availability and quality of medical and social care, availability of information, opportunities for training and professional development, free time, ecology (pollutants, noise, population, climate, etc.); - spirituality (din, There are many studies in the scientific literature devoted to the analysis of the quality of life of patients diagnosed with tuberculosis, but attempts to use this indicator to assess the socially determined factors of the development of tuberculosis and to predict the epidemiological situation have not yet been made.

According to the literature, among the contingent with a high risk of developing tuberculosis, its detection occurs 6-8 times more often than in the general population. The first risk group includes epidemiological factors that are in close contact with patients with tuberculosis. The second risk group includes people with chronic somatic diseases, alcohol abusers, people working in hazardous production conditions - these are called biomedical risk factors.

The level of study of the problem.

The clinic of tuberculosis, including pulmonary tuberculosis, and the effectiveness of its treatment are mainly determined by the presence of multimorbidity, which aggravates the specific process and complicates its treatment. The frequency of multimorbidity in patients with pulmonary tuberculosis ranges from 80% to 100%. The effects of chronic viral and alcoholic hepatitis, peptic ulcer disease, diabetes mellitus, as well as adverse reactions during chemotherapy have been fully studied in the course of tuberculosis (Aminev H.K. et al., 2017;

Muazzamov B.R. (2009) established that the epidemiological indicators of tuberculosis in Bukhara region depend on the climate-geographic characteristics of the region. It has been proven that more adverse conditions affecting the epidemiological indicators of tuberculosis occur in arid regions.

Purpose of the study. Assessment of the level of application of socio-economic factors to characterize the epidemic situation in tuberculosis and the use of these factors in mathematical modeling of the development of the tuberculosis epidemic.

Research objectives:

1. Conducting a comparative epidemiological analysis and assessing the medical and social aspects of the population living with pulmonary tuberculosis, by age, gender, place of residence (on the example of the Bukhara region)
2. Carrying out short-term and long-term forecasting by conducting a comparative analysis of the ways of transmission of the disease in the population living with pulmonary tuberculosis.
3. Study and evaluation of the effectiveness of treatment results by analyzing the results of treatment of the population with pulmonary tuberculosis.
4. Taking into account the epidemiological features of pulmonary tuberculosis infection, development of ways to optimize primary and secondary prevention of patients with pulmonary tuberculosis.
Object and subject of study: Statistical indicators of the incidence of pulmonary tuberculosis in the Bukhara region for 2012-2022 and data from an epidemiological survey of patients with pulmonary tuberculosis.

Research methods.

The research uses the following methods:
- microbiological methods (identification of microorganisms; determination of the sensitivity of microorganisms to antibiotics);
- statistical methods (using computer programs "Excel" for biomedical research).

Scientific novelty of the work.

Develop proposals for improving the system of epidemiological control of pulmonary tuberculosis in the Bukhara region and give specific recommendations for the prevention of this infection.

Conclusion. The studies presented in the review support the view that the epidemiology of tuberculosis is associated with social determinants. The most significant socio-economic factors are poverty, lack of work, low level of education, migration, lack of a permanent place of residence, stay in correctional labor institutions, unbalanced nutrition.

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