

## RISK FACTORS FOR UNFAVORABLE OUTCOMES OF TB IN HIV-INFECTED PATIENTS

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**Introduction:** Tuberculosis and HIV infection announced by the World Health Organization (WHO) as global interrelated public health problem. In the world in 2015 identified 10.4 million cases of TB, one in eight of them was HIV-infected. In 2015 tuberculosis caused 35% of deaths among HIV-infected people. In Kazakhstan as of 31.12.2016 on the account with an active form of tuberculosis consisted 857 HIV-infected patients. In 2016 17.9% in the structure of all causes of death for people living with HIV in Kazakhstan had TB. Identifying risk factors of unfavorable outcomes of tuberculosis it is necessary to minimize their impact on the outcome of tuberculosis and determination of the correct tactics of management for each TB/HIV co-infection case.

**Methods:** We conducted a retrospective analysis of "case - control study" where selected 743 new cases of TB registered 2013 - 2015, which were divided into two groups: the test - cases with an unsuccessful outcome of tuberculosis and control of a favorable outcome. TB outcomes were included: "failure of treatment", "treatment gap" and "died" in the course of treatment for any reason. The outcome "cured" or "treatment completed" refers to prosperous outcomes. The study group consisted of 229 patients (30.8%) with TB/HIV, in the control group - 481 patients (64,7%), 33 patients (4.4%) with outcomes that not indicated, they were excluded from the study.

**Results:** Statistically significant connections adverse outcomes of tuberculosis were found with the following factors: patient age 18-29 years ( $p=0.041$ ), absence of spouse ( $p=0.05$ ), alcoholism ( $p=0,027$ ), generalized forms of tuberculosis ( $p=0.002$ ), bacterial excretion ( $p<0,005$ ), multi-drug resistance ( $p<0,005$ ), the CD4 cell count is less than 50 ( $p<0,005$ ) and duration of HIV infection from three years or more ( $p=0.01$ ).

**Conclusions:** The impact of the identified risk factors on the outcomes of tuberculosis in HIV infection largely can be minimized in the amplification of the control measures for TB and HIV that will reduce the number of deaths of patients co-infected with TB/HIV.