# Treatment of MDR-TB/HIV/CMV patients under individualized regimes of antimycobacterial therapy

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**BACKGROUND.** Often in practice there are combinations of several diseases, or tuberculosis of the respiratory organs develops against the background of various comorbidities, including HIV.
**OBJECTIVE.** To demonstrate best clinical practices for selecting the optimal individualized treatment regimen (ITR) in a patient with multidrug-resistant tuberculosis (MDR-TB) associated with HIV in the setting of severe immunosuppression and complicated by poor tolerability.
**MATERIALS AND METHODS.** Presented clinical analysis of newly diagnosed generalized MDR-TB associated with HIV, treated for ITR for 9 months, which was assigned according to the World Health Organization step-by-step algorithm based on phenotypic drug susceptibility testing data. At the time of assessment, the patient was taking 273 doses of ITR. ITR required extended monitoring and selection during its first months of treatment, as it was accompanied by severe intolerance to antimycobacterial drugs.
**RESULTS AND DISCUSSION.** The expressed adverse events of 3-4 degrees were managed at the expense of carrying out the strengthened clinical and laboratory monitoring and consultations of narrow experts that allowed to select optimum ITR and in addition to carry out symptomatic treatment. Such tactics led to the normalization of hematological parameters with the disappearance of clinical manifestations of other adverse events and provided high intermediate results of treatment at the 9$^{th}$ month of ITR. Steady negativity of smear and culture (from 1st month of treatment), positive radiological dynamics and significant improvement of well-being were obtained.

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**CONCLUSIONS.** Management of patients with MDR-TB/HIV co-infection with severe immunosuppression in patients who are treated by ITR requires enhanced monitoring of adverse reactions and rapid changes in the composition of ITR and early symptomatic treatment to ensure better adherence to treatment and positive outcomes.

**KEY WORDS:** ITR tolerance, MDR-TB, co-infection.