

# Evaluation of the effectiveness of immunomodulator BI-V in the complex therapy of children and adolescents with multiple drug-resistant pulmonary tuberculosis

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**Conflict of interest:** none

**BACKGROUND.** The feasibility of combining antimycobacterial therapy (AMBT) with bedaquiline (Bdq) and delamanid (Dlm) with non-specific immunomodulator BI-V in children and adolescents with multidrug-resistant and rifampicin-resistant pulmonary tuberculosis (MDR/Rif-TBP) needs to be studied.

**OBJECTIVE.** To find out the effectiveness of the use of complex AMBT with Bdq and Dlm with non-specific immunomodulator BI-V in children and adolescents with MDR/Rif-TBP.

**MATERIALS AND METHODS.** Children and adolescents with MDR/Rif-TBP at the initial stage of AMBT were given BI-V (BIVEL, Slovenia) as a non-specific immunomodulator. The patients were divided into two groups: 1<sup>st</sup> – 20 patients who received Bdq + Dlm + levofloxacin (Lfx) + linezolid (Lzd) + clofazimine (Cfz); 2<sup>nd</sup> – 28 patients whose complex treatment included BI-V (Bdq + Dlm + Lfx + Lzd + Cfz + BI-V). BI-V was prescribed from the age of 3 years at 5 ml suspension once a day during 24 days.

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## ОРИГІНАЛЬНА СТАТТЯ

**RESULTS.** The use of BI-V against the background of individualized regimens of AMBT in children and adolescents with MDR/Rif-TBP increased the effectiveness of treatment, contributed to the disappearance of symptoms of intoxication, the resolution of infiltration foci and the healing of decay cavities in system of immune protection, which contributed to the shortening of the inpatient stage of treatment, while maintaining a high therapeutic effectiveness (“cured” – 92.8 %) and the formation of small residual changes in the lungs in the majority (89.3 %).

**CONCLUSIONS.** When using combined complex AMBT with Bdq, Dlm and BI-V, high therapeutic efficiency was observed in most patients (92.8 %).

**KEY WORDS:** multiple drug-resistant pulmonary tuberculosis, treatment, bedaquiline, delamanid, BI-V, children, adolescents.

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