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**Title:** The pharmacotherapy options for the intensive treatment phase in patients with primarily diagnosed pulmonary tuberculosis

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**Body:** The purpose: To improve the efficacy of treatment of patients with primarily diagnosed pulmonary tuberculosis via optimization of treatment protocols for the intensive phase of anti-TB therapy. Methods. 60 patients, with primarily diagnosed pulmonary tuberculosis were distributed into the main (MG) and control (CG) groups. As complex therapy, the patients of the MG received isoniazid, rifamycin and ethambutol intravenously, pyrazinamide orally and streptomycin im. The patients of the CG were administered standardized oral therapy with isoniazid, rifampicin, ethambutol and pyrazinamide and streptomycin im. Results: In complex parenteral administration of isoniazid, rifamycin and ethambutol a trend was noted towards 25 % higher indices of bacteriostatic blood activity as compared with the oral anti-TB therapy. In patients of the MG, intensive therapy phase, the sputum was rendered bacillus-free 20.0% more frequently; these patients were typically found to heal decay cavities better – healing occurred in 54.5% versus 40.9% patients on po treatment during the intensive phase. In pharmacokinetic studies it was estimated that the maximal concentration of rifamycin after single iv dose of 450 - 600 mg was  $22.9 \pm 2.3$  mg/ml, which is significantly higher than rifampicin concentration in oral administration at the dose of 450 - 600 mg ( $8.9 \pm 1.3$  mg/ml,  $p < 0.05$ ). Conclusions: Intravenous administration of rifamycin, ethambutol and isoniazid in the intensive phase of chemotherapy results in reduction of the amount of time, required for bacillus-free rendering of sputum and faster healing of decay cavities in patients with primarily diagnosed pulmonary tuberculosis.