

# THE EFFECTIVE APPLICATION OF VIDEO-OBSERVED TREATMENT OF TUBERCULOSIS AT THE OUTPATIENT STAGE

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## ABSTRACT

Outpatient treatment is to date widely used in phthisiology. According to various authors, outpatient treatment promotes rapid recovery and reduces the risk of contracting drug-resistant forms of tuberculosis. In line with the WHO strategy: “EndTB”, one of the important tasks is the integration of digital healthcare technologies in the prevention and treatment of tuberculosis. Video-Observed Treatment (VOT) was recommended by the National Tuberculosis Control Program in Kazakhstan and was introduced in 2018 in all regions of the country. VOT is a method of remotely controlled chemotherapy for tuberculosis patients in real time or video recording. In patients on VOT, adherence to treatment is increased, the risk of developing acquired drug resistance, treatment failures and relapses of the disease, stigmatization are reduced.

Objective of the research: To study the effectiveness of the use of video-observed treatment of tuberculosis on an outpatient stage.

Materials and methods. The study is based on the results of a study of the medical documentation of 71 patients with tuberculosis who were at the outpatient stage of treatment with video surveillance method in the Aktobe region in 2019.

Results and their discussion. VOT was assigned to 71 patients aged 18 to 65 years. There were 42 men (59.2%), women – 29 (40.8%). The proportion of urban residents was 76.1%, rural – 23.9%. The designated medical personnel responsible for conducting controlled treatment were provided with constant access to the Internet during working hours, with a computer or tablet/smartphone with downloaded applications for video communication with patients. Patients who completed inpatient treatment, as well as who were initially on outpatient treatment by decision of the Centralized Medical Advisory Commission (CMAC), were transferred to VOT. In 71.8% of cases, the infiltrative form of pulmonary tuberculosis prevailed, in 12.8% fibrocavernous pulmonary tuberculosis was diagnosed, in 4.2% - focal pulmonary tuberculosis and tuberculosis of the osteoarticular system, in 2.8% there were patients with tuberculous pleurisy and caseous pneumonia, eye tuberculosis and kidney tuberculosis occurred in 1.4% of cases. Of the 28 patients who received treatment in category I, 24 (85.7%) were registered in accordance with the “a new case” type, 3 (10.7%) “a relapse”, and 1 (3.6%) “transferred”. Of the 43 patients selected for treatment in category IV, “a new case” was registered 9 (20.9%) times, “a relapse” - 19 (44.2%), “a treatment failure” - 13 (30.2%), “transferred” - 2 (4.7%). It should be noted that in patients who received VOT, there was no progression of the tuberculosis process and the development of adverse reactions to anti-TB drugs. 10 (35.7%) patients completed treatment according to category I with the outcome “treatment completed”, 18 (64.3%) patients continue treatment. In category IV, 4 (9.3%) patients completed the treatment with the outcome “treatment completed”, 8 (18.6%) “cured”, and 31 (72.1%) continue treatment. During the observation period, cases of separation from treatment were not noted, not a single patient was transferred to an outpatient or inpatient treatment regimen for directly controlled treatment.

Conclusion: As a result of the study, it was established that VOT at the outpatient stage is an effective method, since the principle of controlled treatment is maintained. VOT at the outpatient stage improves the patient's chances to remain committed to therapy and recover, helps to increase the effectiveness of treatment for tuberculosis, reduces the development of cases of drug resistance and is recommended for further use.

