

DETERMINATION OF *M. TUBERCULOSIS* RESISTANCE PROFILE TO ANTITUBERCULOSIS DRUGS AMONG THE STRAINS, ISOLATED WITHIN THE FRAMEWORK OF THE PROJECT OF *M. TUBERCULOSIS* RESISTANCE SURVEILLANCE IN UKRAINE

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Abstract

The *aim* was to obtain a reliable and representative data about the circulation and drug resistance of *M. tuberculosis* in Ukraine among the patients with new cases and relapses of tuberculosis, using the modern phenotypical tests.

Material and methods. 1657 patients with tuberculosis from 40 clusters were included in the study: 1319 — with new cases (79,6 %) and 338 — with relapses (20,4 %).

The following media were used for sowing: liquid — Middlebrook broth 7H9 and dense — Lowenstein–Jensen egg medium. For identification of the isolated strains we used the immune chromatographic test of ID MTB MGIT and determination of growth on salicylic sodium and p-nitrobenzoic acid enriched media to identify mycobacterium tuberculosis complex.

Results. The high prevalence of circulating multidrug-resistant MBT strains revealed: 24.1 % — in patients with new cases and 58.1 % — in patients with tuberculosis relapses. High resistance to 1st line drugs, such as isoniazid (37.3 %) and rifampicin (25.1 %), and multi-resistance to 3-4 medications, as well as extensive resistance (11.2 %) and pre-extensive resistance (52.8 %) were established.

A quality management system, utilizing the unified operation approaches, has been set up in laboratories which carry out tuberculosis microbiological tests at different levels of medical care.

Conclusion. The survey allowed to organize and conduct a full-scale external control of the operational quality of laboratories using the method of the “repeated re-check” of the results of tests of *M. tuberculosis* 1st and 2nd line drug susceptibility in Ukraine in patients with new cases and the relapses of tuberculosis.

Key words: mycobacterium tuberculosis, chemoresistance.

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