

RAPID DIAGNOSIS OF TUBERCULOSIS INFECTION: MTD-TEST2 AND QUANTIFERON® TB GOLD-IN TUBE

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The Czech Republic is a small country situated in the centre of Europe. It has a low incidence of TB. Increasing numbers of migrants and immigrants from countries with high incidence of TB and mycobacterioses can soon alter this situation. There is a number of useful rapid diagnostic

tests instrumental in mycobacteriology.

Gen-Probe Amplified Mycobacterium tuberculosis Direct test (MTD-T2) for detecting the M.TB complex takes only 3.5 hrs to perform. A total of 29,697 different decontaminated respiratory samples comprising 19,428 sputa, 9,124 bronchoalveolar lavages, 1145 laryngeal swabs (LS) and 2,688

non-respiratory samples. In specimens of respiratory origin. A comparison of MTD-T2 test with smear microscopy + culture:

sensitivity 92.72%, specificity 97.18%, PPV 78.23%, NPV 98.74%. After resolving discrepant results: sensitivity 97.73%, specificity 99.74%, PPV 96.93%, NPV 99.81%. An analysis of nonrespiratory samples is given in the text.

The MTD-T2 is particularly useful in resolving cases of uncertain etiology, in children, immunocompromised patients, risk groups.

The rapidity, sensitivity, specificity and reasonable cost of this test continues to make it the diagnostic molecular-biologic technique of choice.

One of the newly available in vitro tests is QuantiFERON® – TB Gold In-Tube for the diagnosis of tuberculosis in which antigens specific for M.tuberculosis stimulate T-cell production of interferon-gamma that is then quantified by an enzyme-linked immunosorbent assay.

We examined 337 patients by this assay, of which 125 proved positive, 184 were negative, 28 were indeterminate immunosuppressed patients. This assay takes 6 hours to perform. It is used for the detection of active and latent TB, contacts with a TB patient, or screening of risk groups.

Patients were also examined by microscopy, culture in MTXII test, and by MTD-Test2. Particularly, the comparison of results obtained by QFN and MTD-T2 is very useful in rapid diagnosis of TB.