

A WHOLE BLOOD INTERFERON- γ ASSAY FOR THE DIAGNOSIS OF TUBERCULOSIS INFECTION IN AN UNSELECTED GREEK POPULATION

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OBJECTIVE: Although the QuantiFERON-TB Gold (QFT-G) has been approved for the diagnosis of latent tuberculosis infection (LTBI), there is limited data regarding its performance in routine clinical practice. In this study, the QFT-G "In Tube" method results, based on stimulation with *Mycobacterium tuberculosis* specific antigens, were compared with than obtained by the tuberculin skin test (TST) in an unselected hospital-based Greek population.

METHODS: A prospective study of inpatients or outpatients in the University Hospital of Larissa, Greece. Demographic, clinical and microbiological data were collected and correlated to the QFT-G "In Tube" results. Agreement was tested using Q test, kappa coefficient and confounding factors were adjusted by the univariate and multivariable logistic regression. Effects of the variables were estimated using odds ratio (ORs) and *p*-value.

RESULTS: Of 191 patients tested, the concordance between QFT-G "In Tube" and TST results was significantly lower in Bacille Calmette Guérin-vaccinated individuals (61.2%) than in non vaccinated individuals (76.3%)($p < 0.05$). In 27 (14.1%) patients with active tuberculosis, QFT-G "In Tube" provided more positive results than the TST (85.1% vs. 74%; $p = 0.45$). Finally, in the subgroup of the 21 (10.9%) immunosuppressed patients there were 4 (19%) positive QFT-Gold and 7 (33.3%) positive TST results ($p = 0.5$).

CONCLUSIONS: Overall agreement between QFT-G "In Tube" assay and TST in this unselected hospital population was low, mainly due to TST positive/QFT negative discordant results. QFT-G "In Tube" assay seems to have higher sensitivity in patients with active tuberculosis but the test appears less sensitive in immunosuppressed patients.