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Title **T.SPOT.TB ASSAY – AN UPDATE**

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Reference Technology Review Report 019/14, online:
http://www.moh.gov.my/index.php/database_stores/store_view_page/30/254

Aim

The objective of this systematic review was to assess the effectiveness and economic as well as organizational implication of T.SPOT.TB in the diagnosis of latent tuberculosis.

Conclusions and results

From the above review it was found that both IGRAs tests (T.SPOT.TB and QFT-GIT) have lower sensitivity but higher specificity for diagnosing latent TB infection. There was moderate level of evidence to show that T-SPOT.TB, but not TST, was able to identify those individuals who had been occupationally exposed to smear-positive TB patients. This suggests that in a high TB burden health-care setting T-SPOT.TB may provide an accurate, targeted method of diagnosing LTBI. In patients with SLE, those receiving corticosteroids (irrespective of dose) and/or other immunosuppressive drugs, the result of the TST can be affected, increasing the number of false negatives. In these cases, T.SPOT.TB test may be the diagnostic technique of choice. Given that both tests (T.SPOT.TB and QFT-GIT) have modest predictive value and suboptimal sensitivity, the decision to use either test should be based on country guidelines and resources as well as logistic considerations.

Recommendations (if any)

From the above review, T-SPOT.TB was better able to identify those individuals who had been exposed to smear-positive TB patients/ contacts and not much affected by those receiving corticosteroids and/or other immunosuppressive drugs. Hence, it may be recommended as an alternative for diagnosing LTBI, however caution need to be considered when interpreting the results of immune-compromised patients

Methods

Electronic databases were searched through the Ovid interface: Ovid MEDLINE® In-process and other Non-indexed citations and Ovid MEDLINE® 1948 to present, EBM Reviews - Cochrane Central Register of Controlled Trials – August 2014, EBM Reviews - Cochrane Database of Systematic Reviews - 2009 to August 2014, EBM Reviews - Health Technology Assessment – 2nd Quarter 2014, EBM Reviews - Database of Abstracts of Reviews of Effects – 2nd Quarter 2014, EBM Reviews – NHS Economic Evaluation Database 2nd Quarter 2014, Embase – 1988 to 2014 week 35.

Searches were also run in PubMed. Google was used to search for additional web-based materials and information. No limits were applied. Additional articles were identified from reviewing the references of retrieved articles. Last search was conducted on 1st September 2014. A critical appraisal of the retrieved papers was performed and the evidence level was graded according to the US/Canadian Preventive Services Task Force.

Further research/reviews required

Clinical research may provide evidence on the cost effectiveness for its use.

Written by

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