

IGRAs are affected by immunosuppressive therapy, but the T-SPOT™.TB test may be less affected than the other IGRA.¹

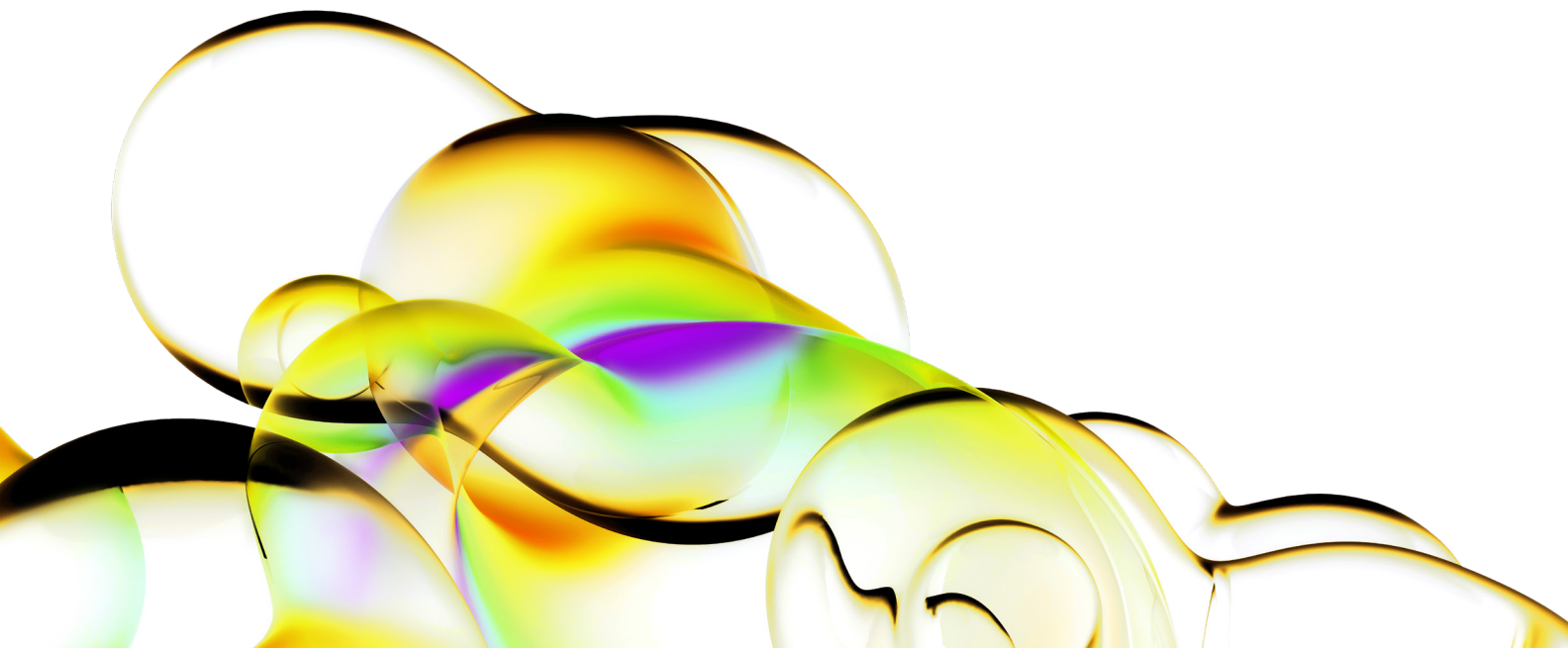
“Effect of immunosuppressive therapy on interferon- γ release assay for latent tuberculosis screening in patients with autoimmune diseases: a systematic review and meta-analysis” (Sunny H Wong et al., 2016).

This meta-analysis was carried out with the aim to summarise the existing data on the effect of immunosuppressive therapy on interferon-gamma release assays (IGRAs) performance in patients with autoimmune disorders. From a literature search up to December 2014, 17 studies were identified for inclusion with a total of 3,197 participants. Of the participants included, 71.5 % were taking immunosuppressants, and 56.7 % had received the BCG vaccination. Most studies (11) used QuantiFERON®-TB Gold In-Tube (QFT®-GIT), 3 studies used the T-SPOT.TB test and 3 used both QFT-GIT and the T-SPOT.TB test. For studies using QFT-GIT, 1,728 patients were receiving immunosuppression and 764 were not. Of those tested by T-SPOT.TB, 924 were receiving immunosuppressive therapy and 448 were not.

Analysis of the T-SPOT.TB and QFT-GIT subgroups suggests that whilst both tests are impacted by immunosuppressive therapies, the T-SPOT.TB test is less affected by immunosuppression than QFT-GIT.

The pooled estimate showed that patients on immunosuppressive therapy were less likely to have a positive IGRA result compared to those not receiving immunosuppressive therapy (OR 0.66, 95 % CI 0.53-0.83).

However, subgroup analysis, based on the test used, showed a significant negative impact of immunosuppressive therapy on QFT-GIT result positivity, but the difference between immunosuppression and no immunosuppression on result positivity did not reach significance in the T-SPOT.TB subgroup.



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Finally, some of the studies included in the meta-analysis reported a higher sensitivity with less indeterminate results with the T-SPOT.TB test than the QFT-GIT method, and it has been demonstrated that the use of a standardised number of washed peripheral blood mononuclear cells in the T-SPOT.TB test may contribute to its greater sensitivity.

The authors conclude, “our study suggests a possible advantage of the T-SPOT.TB method over the QFT-GIT method, though more studies are required to make a fair comparison between the two tests.”

1. Sunny H Wong et al, Effect of immunosuppressive therapy on interferon γ release assay for latent tuberculosis screening in patients with autoimmune diseases: a systematic review and meta-analysis Thorax 2016;71:64-72.

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