



Tuberculosis
screening in
autoimmune
diseases

QFT™

QuantiFERON®-TB Gold In-Tube

Changing the way the world looks at TB

What is latent TB?

Latent TB occurs when you have the bacterium that causes TB in your body, but symptoms are not present. If you are diagnosed with latent TB there is a chance that the bacteria may cause disease in the future, so you are likely to be offered treatment to prevent this from happening.

Why is this important to me?

Autoimmune diseases arise when your immune response is inappropriately directed against substances and tissues normally present in your body. Common examples of autoimmune diseases are rheumatoid arthritis, psoriasis, and Crohn's disease. Tumor necrosis factor (TNF) blocker therapy is an effective treatment for a growing number of autoimmune diseases but also significantly increases the risk of latent TB infection progressing to active TB disease. As a result, testing patients with an autoimmune disease for TB infection is an extremely important precautionary measure before initiating TNF blocker therapy. Medications such as Enbrel[®], HUMIRA[®], and Remicade[®] are TNF blockers.

What is QFT?

QuantiFERON-TB Gold In-Tube (QFT) is a blood test that can help diagnose tuberculosis (TB) infection. A new class of immune system tests called interferon-gamma release assays (IGRA), QFT is a major scientific advance over the 100-year-old skin test (Mantoux or tuberculin skin test), giving greater accuracy and a more reliable result.

In what situations should QFT be used?

QFT can be used in all situations in which the skin test has been used in the past. QFT can also be used to confirm a positive skin test. Many countries have guidelines in place. The updated guidelines issued by the German Central Committee for the Fight Against Tuberculosis (DZK) recommend exclusion of active TB and screening for latent TB infection using an IGRA before commencing a patient with autoimmune disease on TNF blocker therapy. For information regarding guidelines, please see the links at the end of this brochure or consult your local health service provider.

What does QFT involve?

A specimen of blood is collected and sent to the laboratory for analysis.

How does QFT work?

QFT is a laboratory test that uses special blood collection tubes coated with antigens (small, non-infectious portions of the TB bacterium) for blood collection and subsequent testing. These antigens are very specific for detecting TB infection. When the blood of an individual infected with TB comes in contact with these antigens, a chemical messenger called interferon-gamma is released by the white blood cells. QFT results are based on the amount of interferon-gamma that is produced in the tubes.

How are QFT results interpreted?

Proper assessment of suspected TB infection takes into consideration your medical history and diagnostic findings, of which the QFT result is an essential component. Your medical practitioner or nurse is in the best position to advise you on what a QFT result means in your situation. However in most circumstances:

- a positive QFT result suggests that TB infection is likely.
- a negative QFT result suggests that TB infection is unlikely.
- an indeterminate result, which is uncommon, may suggest the need for further investigation or repeating the test.

How long before I get results?

This varies depending on how frequently the laboratory in your area carries out the test. Your local laboratory, medical practitioner or nurse should be able to provide more information about when you will receive your test results.

Are there any risks associated with having the test?

No, there are no risks associated with having the test apart from the slight discomfort of having a blood sample taken.

Where can I get further information?

Your medical practitioner will be able to provide you with further information regarding the risks associated with TB infection while taking TNF blocker medication.

Guidelines can be viewed by country here:

- Germany: <http://www.springerlink.com/content/c746084833106414/>
- UK: <http://guidance.nice.org.uk/CG33>
- France: http://www.has-sante.fr/portail/display.jsp?id=c_490559

Additionally, you may find these related scientific publications of interest:

- Beglinger *et al.* *Swiss Med Wkly* 2007; 137:620-2.
- Bocchino *et al.* *Eur J Clin Microbiol Infect Dis* 2008; 27:907-13.
- Cobanoglu *et al.* *Int J Tuberc Lung Dis* 2007; 11:1177-82.
- Martin *et al.* *Ann Rheum Dis* 2009; [E-pub].

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