QuantiFERON®-TB Gold test for Tuberculosis

The QuantiFERON®-TB Gold test (QFT-G) is a whole-blood test for use as an aid in diagnosing *Mycobacterium tuberculosis* infection, including latent tuberculosis infection (LBTI) and tuberculosis (TB) disease.

At HealthPartners, the QFT-G blood test is the preferred method of testing for persons 5 years of age and older. The Tuberculin Skin Test (TST) is the preferred method of testing for persons younger than 5. If the patient prefers the skin test, the TST can be administered. The QFT-G blood test replaces the TST and should not be used in addition to the TST.

QFT-G may be especially useful in patients suspected of having possible false-positive Tuberculin Skin Testing (TST) due to previous BCG vaccination or environmental (non-tuberculosis) mycobacterial infection. The test specifically detects responses to two proteins that are made by *M. tuberculosis*, the bacterium that causes TB. These reactions are absent in all BCG preparations and environmental mycobacterium (with few exceptions). As a result, QFT-G is more specific than Tuberculin Skin Testing for the diagnosis of *M. tuberculosis* infection.

A positive response to the QFT-G does not mean the person has ACTIVE TB. It simply means they have been exposed to the *M. tuberculosis* bacterium. They may have latent infection, active infection, or treated infection. Clinical assessment and other diagnostic tests are needed to confirm a diagnosis of active TB, such as a chest x-ray and sputum smear and cultures.

The advantages of using the QFT-G blood test are:
- Requires only a single patient visit.
- Results can be available sooner than the TST.
- Results are more accurate and specific to TB.
- Results are easily found in EPIC.
- Does not boost responses measured by subsequent tests.
- Prior BCG vaccination does not cause a false-positive result.
- Insurance companies are paying for this testing.
The disadvantages of using the QFT-G blood test are:

- Blood samples must be processed within 12-16 hours of collection while white blood cells are still viable.
- Limited data on the use of QFT-G blood tests for:
  - Children younger than 5 years of age.
  - Persons recently exposed to *M. tuberculosis*.
  - Immunocompromised persons
  - Serial testing

For more detailed information regarding the testing and treatment of TB, please refer to the TB Policy & Procedure found in Compliance 360.

References:


3. Pai, M. Interferon-gamma release assays for latent tuberculosis infection. In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2011.

Questions: Please reply to this e-mail, and your questions(s) will be directed to the author of this Pearl, Dr. Jonathan Sellman.

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All Pearl recommendations are consistent with professional society guidelines, and reviewed by HealthPartners Physician Leadership.