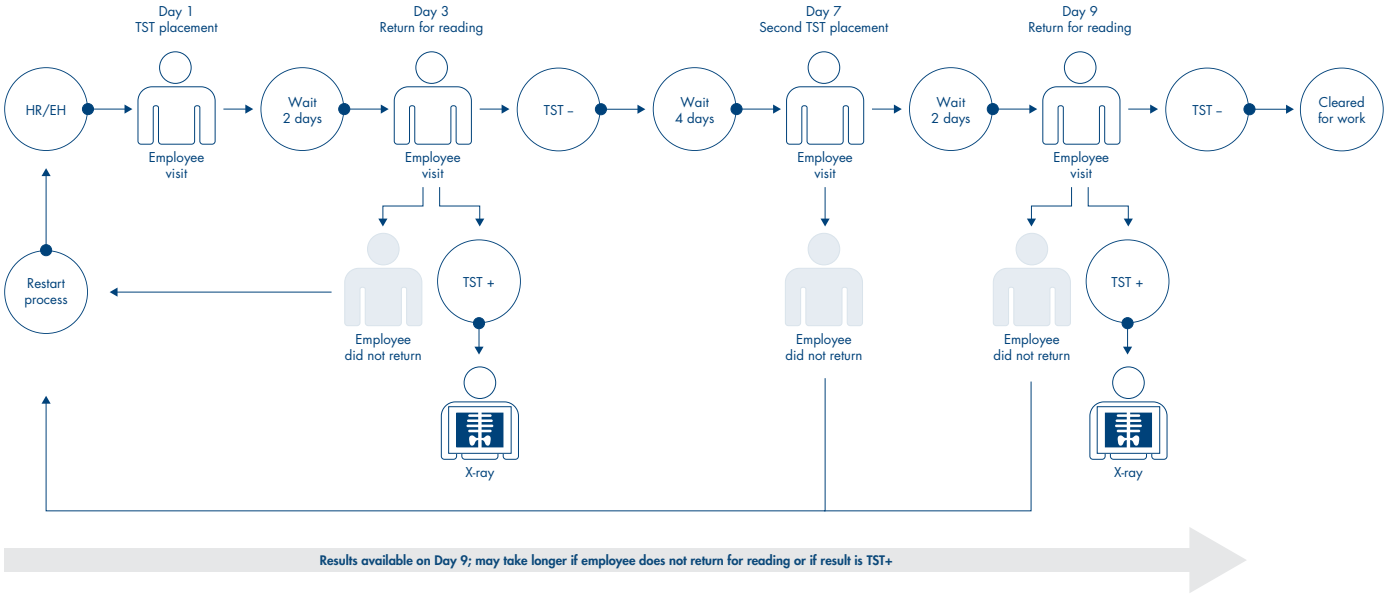
Improve your onboarding process

Healthcare organizations have been adopting the Lean improvement methodology to streamline their processes and to reduce waste. Time-to-hire for healthcare workers depends on completion of a medical clearance, which historically includes two-step tuberculin skin test (TST) baseline TB screening. An alternate method of TB screening uses QuantiFERON®-TB Gold (QFT®). QFT testing provides a leaner screening process, with less time wasted and less test variability than the TST (Figure 1 and Table 1).

TST two-step testing



QFT

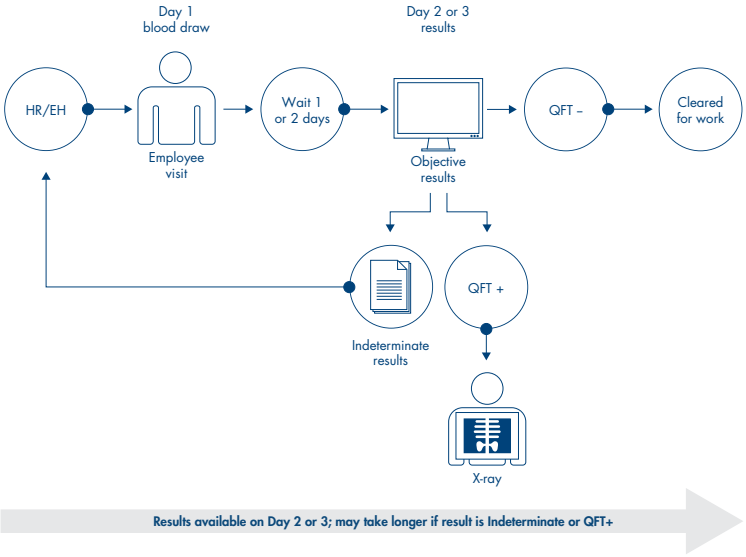


Figure 1. Onboarding new hires with QFT vs. TST two-step testing. HR = Human Resources; EH = Employee Health; EMR = Electronic Medical Record.

Reduce onboarding timeframes from 9 days or more to only 2 or 3 days with QFT

Table 1. TST vs. QFT: observations of key screening issues

Observation	TST	QFT
New employee visits	4 visits or more	1 visit
EMR entry	Manual entry of requisition; manual entry of test results in EMR necessary	Direct entry into EMR; test results are automatically received in EMR
Testing/results variability	TST is a subjective test with high inter/intra-observer variability and a higher margin for error	QFT is an objective laboratory test with low variability
Waiting for next step in the process	8 days or more	1 to 2 days
Risk of no shows	New hires who do not return within the correct timeframe may have to reschedule placement of new TST and restart TB screening, creating additional work for EH staff and nursing staff (repeated TST placements).	Not applicable
Risk of false-positive results	86% specificity (1) 14 out of 100 are false positive and go to unnecessary X-ray follow-up	99.2% specificity (2) Very few false positives

Decrease the number of visits your new employee must comply with to complete your TB screening program. With QFT, new hires can be on the job more quickly, reducing costs of temporary staffing and overtime. QFT eliminates some redundant steps that would require a restart of the testing process if new hires tested with TST do not return within the correct timeframe. Unlike the TST, QFT does not have false positives resulting from Bacille-Calmette Guérin (BCG) or the presence of most nontuberculosis mycobacterial species (2). QFT demonstrates a false-positive rate of less than 1% – an opportunity to significantly reduce waste (3).

Visit **www.qiagen.com/QFT-lean** to learn how QFT testing can streamline your TB testing.

References:

1. Centers for Disease Control and Prevention. (2010) Updated guidelines for using interferon-gamma release assays to detect *Mycobacterium tuberculosis* infection — United States. MMWR **59(RR05)**.
2. *QuantiFERON-TB Gold Package Insert*. March 2013. US05990301L.
3. Graban, M. and Filby, D. "Lean" the new hire onboarding process for healthcare workers: evaluating the QuantiFERON-TB Gold Test. Scientific article. QIAGEN, July 2015.

QuantiFERON-TB Gold (QFT) is approved by the FDA as an in vitro diagnostic aid for detection of *Mycobacterium tuberculosis* infection. It uses a peptide cocktail simulating ESAT-6, CFP-10, and TB7.7(p4) proteins to stimulate cells in heparinized whole blood. Detection of IFN-γ by ELISA is used to identify in vitro responses to these peptide antigens that are associated with *M. tuberculosis* infection. QFT is an indirect test for *M. tuberculosis* infection (including disease) and is intended for use in conjunction with risk assessment, radiography, and other medical and diagnostic evaluations. Up-to-date licensing information and product-specific disclaimers can be found at **www.QuantiFERON.com**.