ALBERTA PRECISION LABORATORIES Leaders in Laboratory Medicine	**Alberta QuantiFERON (QFT) Testing Decision Algorithm & Quick Reference Guide**

QFT Testing Decision Algorithm

1. **Is the patient starting on potent immunosuppressive and/or biological immunomodulatory therapy and/or at an increased risk for reactivation of LTBI due to immunosuppression?**
   Including, but not limited to anti-TNF inhibitors, JAK inhibitors, IL-17/23/12-23 inhibitors, cyclosporine, mycophenolate, B-cell depletion therapies, high-dose prednisone (e.g., bioequivalent of 15mg/day of prednisone for more than one month), transplant immunosuppression, dialysis, history of HIV, etc.
   For additional information, please refer to the *Alberta QuantiFERON Guidelines for Testing for Latent Tuberculosis Infection.*
   - **Yes** - Proceed to Step 2
   - **No** - Do not order QFT unless other specialty-approved indications exist
     - These guidelines do not address screening outside potent immunosuppression and/or biological immunomodulatory therapy

2. **Does the patient have TB symptoms or abnormal chest imaging?**
   (cough > 3 weeks, fevers, night sweats, weight loss; CXR cavitation, infiltrates, nodules)
   - **Yes** - Suspect active TB
     - Do not order QFT
     - Urgent referral/consult to TB services or Infectious diseases for diagnostic workup
   - **No** - Proceed to Step 3

3. **Has the patient ever had a positive QFT or TST?**
   - **Yes** - Previously positive
     - Do not repeat QFT/TST
     - Assess for symptoms; rule out active TB if indicated
     - If asymptomatic and not previously treated with preventative TB therapy, refer to TB services prior to initiating immunosuppressive therapies
   - **No** - Proceed to Step 4

4. **Is QFT the preferred test in this patient?**
   QFT is preferred when:
   - Planned potent immunosuppression and/or biological immunomodulatory therapy in next 6-12 months
   - BCG vaccinated or uncertain BCG history
   - Technical barriers to TST testing (e.g., severe skin disease)
   - Access barriers to TST testing/result interpretation (e.g., unable to return for follow-up)
   - Rapid testing required for imminent initiation of potent immunosuppression and/or biologic immunomodulatory therapy
   - **Yes** - Order QFT
   - **No** - Consider TST
     - TST may be appropriate:

- When there are access barriers to QFT testing
- In children under 18 months of age

Interpretation of QFT Results

QFT Positive

- Refer to TB Services for guidance on further assessment, diagnosis, and considerations for preventative therapy.
    - Patients with a positive QFT will require a 2-view chest x-ray (PA & lateral) as well as a completed TB referral.
        - For the Tuberculosis (TB) Provincial Referral Process see 07.330 TB Provincial Referral Process. *Please note this document refers to patients with a positive TST but also includes patients with a positive QFT.
- **Note:** Organ transplant candidates (other than Calgary zone) are referred to transplant ID. For additional information please refer to:
    - Transplant Infectious Diseases | Insite
    - *Clinical Practice Guideline: Donation and Transplantation Tuberculosis Screening and Management Guidance* (Implementation Date June 2025)

QFT Negative

- Proceed with immunosuppressants or biological therapies, provided active disease is not suspected.

QFT Indeterminant

- May repeat QFT once in 2-4 weeks' time.
- If repeated tests remain indeterminate, consider consulting TB Services.

Considerations for Repeat QFT Testing

Repeat QFT testing is valuable if there is repeat TB exposure:

- New documented TB close contact wince last QFT or TST.
- Prolonged travel to high TB incidence setting since last QFT performed (*refer to Table 4: Recommendations of the Canadian Thoracic Society for groups for targeted LTBI screening* (p. 334) from the Canadian Tuberculosis Standards 7th edition, Chapter 13.
- https://cts-sct.ca/wp-content/uploads/2018/01/Canadian-Tuberculosis-Standards_7th-edition_Complete.pdf
- Repeat QFT testing one time only if the initial QFT was indeterminant.
  * For additional information, please refer to the *Alberta QuantiFERON Guidelines for Testing for Latent Tuberculosis Infection.*

Do not repeat or perform annual QFT testing if:

- Previous positive QFT/TST.
- Repeat QFT testing with change in immune suppression or on annual basis is not required without repeat exposure as described above.

Decision Algorithm Revisions & Version Control

Version	Purpose/Change	Responsible	Date
1.0	Completed and approved decision algorithm	Dr. Greg Tyrrell Dr. Ryan Cooper ACA Clinical Appropriateness Team	26 March 2026