

IGRA Resource

Public Health Nurses in BC



Provincial Health
Services Authority



BC Centre for Disease Control
Provincial Health Services Authority

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Purpose

This document provides IGRA testing information to Public Health Nurses¹ (PHNs) who provide tuberculosis (TB) screening in BC. If TB Services (TBS) recommends an Interferon Gamma Release Assay (IGRA) for a client referred to TBS, the PHN supports the client in accessing this test at the nearest collection site. PHNs do not currently have the ability to order IGRA testing. This document will be a reference for PHNs to assist clients in accessing and preparing for IGRA testing at collection sites throughout BC.

As indicated in [the IGRA Physician Guidelines](#), certain clinicians have the ability to order IGRAs without consultation to TBS. PHNs can support facilitation of IGRAs ordered by these clinicians as needed. In this scenario, this IGRA Resource document can be used as a reference for availability, client education and common client scenarios.

Clinicians seeking further information on IGRA testing can reference [the IGRA Physician Guidelines](#).

¹For the purposes of this document, PHN refers to Public Health Nurse, Community Health Nurse, Primary Care Nurse or other health care providers involved in the TB screening and referral process.

Background

In BC, the tuberculin skin test (TST) and IGRA are both screening tests used to help clinicians determine the likely presence of TB infection.

Historically, TB Infection diagnosis was based on risk assessment, CXR and TST results. The TST is a well-studied, safe and inexpensive test. However, the TST has some limitations in interpretation that can result in false positive or false negative results. Further information on TST limitations can be found in the [BCCDC CDC Manual, Chapter 4 - TB, Appendix A](#).

IGRAs are immunological blood tests used to support a diagnosis of TB infection. IGRAs are not influenced by prior BCG vaccination or the most common NTM (e.g., *Mycobacterium avium complex*). IGRA tests can also provide additional information for some immunocompromised clients. Thus, IGRA testing can help prevent unnecessary TB preventive therapy (TPT) and can help identify clients who may benefit from TPT.

IGRA testing does not replace the TST but is used in specific populations requiring additional information to determine TB infection status. IGRAs and TSTs are imperfect tests and must be interpreted within the context of the individual's risk of TB infection and progression to TB disease (See [BCCDC CDC Manual, Chapter 4 - TB, Section 3, Table 3-1](#)). Neither test can determine if it is TB infection or TB disease. Please refer to the [Physician IGRA Testing Guidelines](#) for comparing TST vs. IGRA.

In British Columbia (BC), there are two IGRA test options available:

1. QuantiFERON-Gold Plus® [QFT-Plus] (Enzyme-linked Immunosorbent Assay (ELISA) on whole blood)
2. T-SPOT® (Enzyme-linked Immunospot Assay on peripheral blood mononuclear cells)

As QFT-Plus is the preferred and most easily accessible IGRA test option for the vast majority of clients requiring screening, QFT-Plus will be the focus of this document. Nurses should interpret IGRA recommendations from TBS as QFT-Plus recommendations unless otherwise specified.

If TBS orders a T-Spot, ensure that client can access this test using most up-to-date list of [IGRA Sites in BC](#). If this test is inaccessible for the client, contact TBS.

Ordering and Availability

As discussed in the purpose section of this document, PHNs cannot currently order IGRA testing. Certain clinicians can order IGRA testing for their patients. Refer to the [Physician IGRA Testing Guidelines](#).

- **Publically-funded IGRA tests** that meet the criteria outlined in the provincial IGRA testing guideline are performed at designated testing sites only. Please refer directly to the [eLab Handbook](#) or the BCCDC website for the most up-to-date list of [IGRA Sites in BC](#), including their operating hours and requirements. See [Procedures for IGRA Testing in BC](#).
- **Private pay IGRA tests** are available at specific LifeLabs locations across the province. Please see the [LifeLabs website](#) for further information.

Sample Processing

[The most up-to-date list of established IGRA collection sites in BC](#) is available on the BCCDC website. Most sites can offer initial sample processing (for QFT-Plus) on-site or arrange for transportation to the BCCDC Public Health Laboratory (PHL) within a stringent timeframe and under strict temperature control conditions (for both unprocessed QFT-Plus and T-spot samples). Testing can only be completed if the samples arrive at the BCCDC PHL within specified shipping conditions.

If your local laboratory does not offer QFT-Plus pre-processing, please connect with your local medical microbiologist or the BCCDC medical microbiologist on call to discuss the collection options available to your clients. TB Services and the BCCDC PHL continuously work to improve IGRA collection availability throughout the province and update the [IGRA collection site list](#) accordingly.

Procedures for Referrals to TBS

Complete referrals

A complete referral to TBS includes:

- [TB Screening Form](#) AND
- A recent CXR (unless contraindicated) within six months and asymptomatic. If client is symptomatic, a new CXR and 3 sputum samples are required. Please see [BCCDC CDC Manual, Chapter 4 - TB, Section 4\(b\), Figure 1](#).

To prevent delays, ensure the [TB Screening Form](#) is complete and accompanied by a CXR.

Submit referrals by:

Please submit client referrals following pre-established health authority procedures.

Fax or Mail

Refer clients by fax or mail by submitting the [TB Screening Form](#) to:

BCCDC TB Services
655 West 12th Avenue
Vancouver, BC V5Z 4R4
Fax: 1-604-707-2690

Panorama Users:

Email referrals to tbadmin@bccdc.ca, including Client ID, Investigation ID, and reason for referral in the subject line.

Clients residing in FHA or VCH (Except Coast Garibaldi)

This section is for clients residing in Fraser Health (FHA) or Vancouver Coastal Health (VCH), except the Coast Garibaldi area. Once received, referrals to the Vancouver and New Westminster TB clinics are reviewed by TBS. The decision to draw IGRA (or not) is based on the [Physician IGRA Testing Guidelines](#). If IGRA testing is appropriate, TB clinic staff will contact the client and arrange testing.

Clients residing in VIHA

All clients attending sites on Vancouver Island are asked to bring the IGRA requisition with them. For any TB related queries, contact the TB Island Health Program. See [consultation](#) section.

Clients residing in First Nations Communities

For all clients residing in First Nations communities, please follow pre-established procedures. For any IGRA related queries, contact the FNHA TB program. See [consultation](#) section.

Clients residing in IHA, NHA and Coast Garibaldi region of VCH

This section is for clients residing in Interior Health (IHA), Northern Health (NHA), and the Coast Garibaldi region of VCH. Outside the lower mainland, clients usually attend collection sites closer to their home community (e.g., clients residing in Powell River may find it more convenient to travel to Vancouver Island for IGRA). Therefore, IGRA discussions occur between the client and the public health nurse, or the most responsible provider (MRP).

1. Once a referral is received, TBS will review file and recommend IGRA (or not) based on the [Physician IGRA Testing Guidelines](#).
2. Recommendation for IGRA is mailed and/or faxed to the MRP and/or PHN.

Client consents to IGRA:

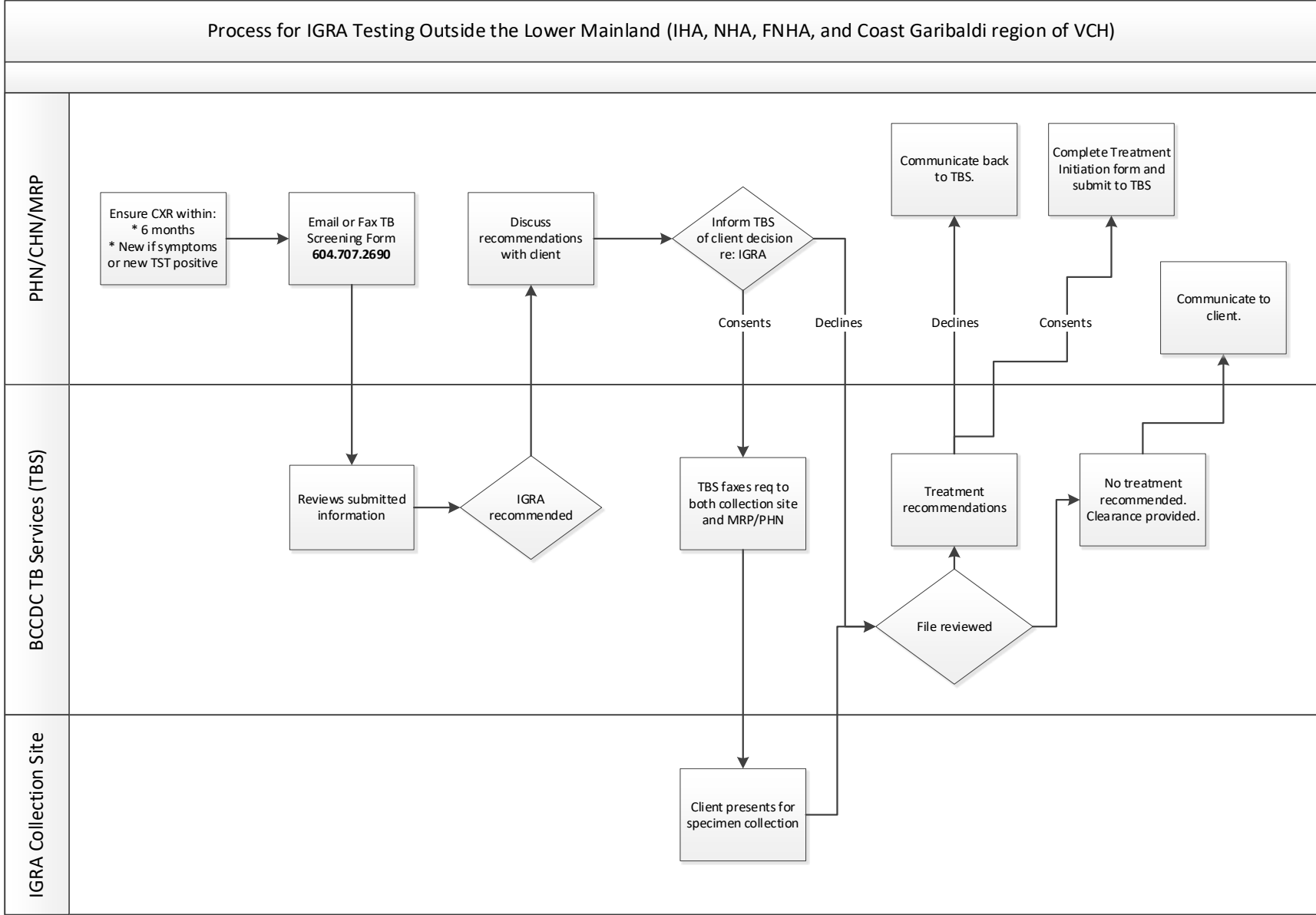
3. Depending on health authority procedures, MRP or PHN discusses the IGRA recommendation with the client and reports back to TBS indicating the client's consent and desired collection site. Please refer directly to the BCCDC website for a list of [IGRA Sites in BC](#).
4. TBS faxes IGRA requisition to the collection site and the local health unit². See the [client education section](#) for topics for the PHN to review with client before the IGRA appointment.
5. IGRA results are sent to the MRP/PHN and TBS. TBS reviews and interprets IGRA results in the context of TB risk assessment, TST and CXR.
6. Follow-up recommendations are sent to MRP and public health and are viewable in CareConnect. For Panorama users, this information is sent to providers listed in external sources.
7. If treatment is recommended, MRP/PHN to discuss with client and communicate consent to TBS. If the client consents, PHN to initiate TPT. If the client declines, contact TBS.

Client Consent

If client declines recommended IGRA or TPT, it is the responsibility of the healthcare provider who has discussed recommendations and received client's decline of consent to notify TBS for creation of alternate care plan or closure of file.

² For the purposes of this document, local health units refer to public health units, community health centres and primary care centres.

Referral Process for Outside the Lower Mainland



Client Education

When educating clients about TB and IGRA testing, consider the points below. In accordance with BCCNM Professional Standards³, ensure client-centered provision of service through plain language education and translation services if required. See the [Resources section](#) for client education materials.

TB discussion

- Explain TB transmission, the difference between TB infection and TB disease, the risk of reactivation and the purpose and the benefit of screening.
- Discuss the difference between a TST and IGRA. Please refer to the [Physician IGRA Testing Guidelines](#) for comparing TST vs. IGRA.
- Explain that publically funded and safe treatment options are available for TB infection and TB disease.

IGRA discussion

- IGRA does **NOT** tell you if you have TB disease. IGRAs test the body's immune response to previous exposure to TB (TB Infection) and can help clarify TST results in some people with prior BCG vaccination or immune-compromised individuals.
- IGRA is not superior to TST or confirmatory; it provides further information to the larger clinical picture to assist with deciding whether to recommend TPT.

IGRA Appointment

- Instructions in the IGRA Recommendation fax cover sheet from TBS will vary depending on the collection site. Some sites will require clients to book appointments ahead of time or may offer drop-in times.
- Once PHN receives instructions from TBS, PHNs will call the client and inform them of instructions. Fasting is **NOT** required.
- PHNs should encourage clients to call the collection site in advance to ensure the lab has received the requisition before attending drop-in times.
- Please note that IGRA collection hours may not reflect the actual business hours of the lab. Clients attending drop-in sites should be encouraged to go to the collection site early and well before the end of IGRA collection times. The timing of the test is critical to ensuring the sample collected meets processing and transportation timelines.

³ www.bccnm.ca/RN/ProfessionalStandards/Pages/ProvisionofService.aspx

Common Client Scenarios

Live Virus Vaccines

While the effect of live vaccines on IGRA has not been well studied, live vaccines may affect IGRA results. In non-urgent testing circumstances, clients should be encouraged to delay IGRA testing for **four weeks** after the live virus vaccine was received. For more information on live virus vaccines, visit the [BCCDC CDC Manual, Chapter 4 - TB, Section 4\(b\)](#).

Current or recent major viral illness

In scenarios where client presents with current or recent (within four weeks) major viral illness (i.e., measles, mumps, varicella), consider the reason for testing:

- If testing is for a time-sensitive medical need (e.g. pre-biologics, transplant, CKD), proceed with IGRA. Ensure that illness details are communicated to TBS. If IGRA is non-reactive and the client has a high likelihood of TB infection, additional testing may be ordered by TBS after MD review.
- If the client is not being tested for a medical need or otherwise time-sensitive reason, consider deferral in testing until **four weeks** after the resolution of symptoms.
- For clients with mild illness with or without fever, proceed with IGRA.

For more information on current or recent major viral illness, visit the [BCCDC CDC Manual, Chapter 4 - TB, Section 4\(b\)](#).

Declined IGRA

If the client declines IGRA testing or cannot travel to a city to access testing, communicate this promptly to TBS. TBS may provide recommendations based on the information available or may work with the MRP or other health care provider to create an alternate plan. If the client wishes to proceed with testing at a later date, the option of IGRA remains available to them. Communicate the client's decision to defer testing until a later date to TBS. A new CXR may need to be obtained.

IGRA not completed

The responsibility for follow up with the patient to complete IGRA lies with the MRP/PHN (e.g., where the screening request originated). TBS will not contact your patient to follow up on IGRA completion. To avoid gaps in client care, if a client has not gone for IGRA within **eight weeks** of the requisition being provided, the PHN/MRP is responsible for communicating this to TBS. The PHN/MRP may indicate that the client has not obtained an IGRA and does not plan to or is unreachable, in which case TBS will review the information and make recommendations based on available information accordingly. The PHN/MRP may also indicate that the client has specific plans to obtain their IGRA and request that TBS wait for IGRA result to make recommendations on the client's file. The MRP/PHN is responsible for ongoing communication with TBS.

For any other questions related to client scenarios, please [contact TBS](#).

Resources

Guidelines

- [BCCDC CDC Manual, Chapter 4 - TB Manual](#)
- [BCCDC CDC Manual, Chapter 4 - TB Manual, Section 4\(b\)-TB Screening Decision Support Tool](#)

Forms

- [TB treatment initiation form](#)

Client Education Resources

- [IGRA TB Blood Test Fact Sheet](#) (translations available)
- [TB Infection Fact Sheet](#) (translations available)
- [TB Germ – A World Traveler](#) (video, translations available)

Consultation

BCCDC TB Nurse Consultants

Phone: 1-604-707-5678

Email: TBNurseConsultants@bccdc.ca

FNHA Tuberculosis Services

Email: FNHATB@fnha.ca

Phone: 1-604-693-6998

Toll-free: 1-844-364-2232

Fax: 604-689-3302

www.fnha.ca/what-we-do/communicable-disease-control/respiratory-infections-tuberculosis

VIHA Island TB Program

Tuberculosis Prevention & Control Office

Phone: 1-250-519-1510

Fax: 1-250-519-1505

www.islandhealth.ca/our-services/communicable-disease-prevention-control-services/tuberculosis-prevention-control-office