



December 12, 2022

Provincial TB Services Update: Timing of TST or IGRA and COVID-19 vaccination or post COVID-19 infection

Practice Update

This practice guidance may change based on evolving evidence. Currently, the following recommendations for the timing of TST or IGRA and COVID-19 vaccination or post COVID-19 infection are as follows:

- **A TST or IGRA may take place at any time before, after or at the same visit as a COVID-19 vaccination.**

Rationale: There is a theoretical risk that mRNA or viral vector vaccines could temporarily affect cell-mediated immunity, resulting in false-negative TST or IGRA test results. However, there is no direct evidence for this interaction.^{1,2} Repeat testing may be considered in some circumstances, **see below**.

- **A TST or IGRA may take place at any time after a COVID-19 infection.**

Rationale: There is limited evidence that severe COVID-19 infection impacts cell-mediated immunity and IGRA results.^{3,4,5} A COVID-19 infection theoretically has the potential to impact cell-mediated immunity similar to other major viral infections.⁶ Repeat testing may be considered in some circumstances, **see below**.

- **A repeat TST or IGRA**, at least four weeks post-COVID-19 immunization or four weeks following resolution of severe COVID-19 infection, of individuals with negative TST or IGRA results for whom there is high suspicion of tuberculosis (TB) infection may be considered in order to avoid missing persons with TB infection.

Examples include clients getting screened due to contact to an active TB case OR clients with TB exposure risk factors getting screened prior to starting biologics or other immune suppression treatment.

BCCDC Website

This communication is posted on the TB Clinical Resources and BCCDC TB Manual webpages.

- www.bccdc.ca/health-professionals/clinical-resources/tuberculosis-guidelines
- www.bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual/tuberculosis

¹ <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/summary-updates-canadian-immunization-guide-august-29-2022-covid-19-vaccines.html>

² <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/covid-19-vaccinations/healthcare-provider-q-a>

³ Torre A, Aliberti S, Castellotti PF, Cirillo DM, Grisolia A, Mangioni D, et al. Preliminary observations on IGRA testing for TB infection in patients with severe COVID-19 eligible for immunosuppressive therapy. *Respir Med.* 2020;175:106204.

⁴ Ward JD, Cornaby C, Schmitz JL. Indeterminate QuantiFERON Gold Plus Results Reveal Deficient Interferon Gamma Responses in Severely Ill COVID-19 Patients. Tang Y-W, editor. *J Clin Microbiol.* 2021;59(10):e0081121-e0081121.

⁵ Shier KL. Elevated Rates of Indeterminate Results on QuantiFERON-TB Gold Plus in COVID-19 Patients. Tang Y-W, editor. *J Clin Microbiol.* 2021;59(10):e0141421-e0141421

⁶ Jonathon R. Campbell, Christopher Pease, Peter Daley, Madhukar Pai & Dick Menzies (2022) Chapter 4: Diagnosis of tuberculosis infection, *Canadian Journal of Respiratory, Critical Care, and Sleep Medicine*, 6:sup1, 49-65, DOI: [10.1080/24745332.2022.2036503](https://doi.org/10.1080/24745332.2022.2036503)