

### Elgin St. Thomas Site

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### From the office of Dr. Ninh Tran, Medical Officer of Health, Southwestern Public Health

# Tuberculosis Update – Yes! We Can End TB

#### March 24 is World Tuberculosis Day. This year's theme – Yes! We Can End TB.

Each year, World Tuberculosis (TB) day is commemorated on March 24<sup>th</sup> to raise awareness about the health, social, and economic consequences of TB. About a quarter of the world population is estimated to be infected with TB bacteria, and 5-10% may progress to disease. In 2021, an estimated 10.6 million people fell ill with TB globally. However, TB is curable and preventable.

#### Local Tuberculosis Statistics, 2022

Episode Type	Southwestern Public Health (# of cases)		
Latent Tuberculosis Infection (LTBI)	29		
Active Tuberculosis Disease (TB)	4		
Non-TB Mycobacterial Infections (NTM)	1		
TB Immigration Medical Surveillance	20		

\*There has been an increase in TB Immigration Medical Surveillance reports from previous years. Clients under Medical Surveillance that were diagnosed with LTBI may be duplicated in the statistics.

#### **Reading and Interpreting Positive TB Skin Tests**

- TB skin tests must be read by a trained health professional 48-72 hours after administration.
- If there is induration, mark the border of induration by moving the tip of a pen at a 45° angle laterally toward the site of the injection. The tip will stop at the edge of the induration, if present. Repeat the process on the opposite side of the induration.
- Use a caliper to measure the **induration** (the area between the pen marks) across the forearm (transverse to the long axis of forearm). Record in millimetres even if no induration (0 mm). <u>Do not</u> measure erythema (redness).
- The <u>Online TST Interpreter</u> can be used to assess the positive predictive value of a positive skin test.
  - If the initial tuberculin skin test is positive, but the likelihood of tuberculosis infection is low, an interferon-gamma release assay may be used to increase specificity.

• For more information, see <u>Chapter 4 of the 2022 Canadian Tuberculosis Standards.</u>

#### **TB Skin Testing: Online Resources**

- Updated: SWPH Assessment and Treatment of Latent Tuberculosis Infection: Reference for HCPs
- <u>Tuberculosis Skin Test Training Video</u>
- For more information on tuberculosis screening and diagnosis, visit our website.

#### Reporting Requirements: Both Active TB Disease and Latent TB Infection (LTBI) are Reportable in Ontario

#### To report suspected or confirmed active TB cases:

- Call Southwestern Public Health at 1-800-922-0096 (8:30 a.m. 4:30 p.m.) to provide patient clinical information and demographics (name, date of birth, address, and phone number).
- Download, complete, and <u>fax</u> the <u>Tuberculosis (TB) Notification Form</u> to SWPH.

#### To report a positive TB skin test/IGRA:

- Download and complete the <u>Tuberculosis (TB) Notification Form</u>.
- <u>Fax</u> the positive TST/IGRA result, chest x-ray, and TB Notification Form to SWPH.

#### Latent TB Infection: Treatment Recommendations

Updated first-line treatment recommendations for latent tuberculosis infection (LTBI) were included in the <u>Canadian Tuberculosis Standards 8<sup>th</sup> Edition</u>. These include Rifampin self-administered daily for 4 months (4R), and Rifapentine and Isoniazid once weekly for 3 months (3HP). Currently, the 3HP regimen requires prior approval from the Ministry of Health and Long-term Care through the local health unit.

# The Canadian Tuberculosis Standards 8<sup>th</sup> edition (chapter 14) encourages treatment of healthcare workers with <u>latent TB infection</u> in the absence of contraindications to the medications.

#### Table 1. Summary of Treatment Guidelines for LTBI from the Canadian TB Guidelines, Chapter 6 (2022).

Regimen	Duration	Dose	Frequency	Common adverse effects
First-line regimen				
Rifapentine and Isoniazid	3 months (12 doses)	Isoniazid:	Once weekly	Flu-like reactions, drug
(3HP) (Directly observed		15 mg/kg		interactions
preventive therapy; DOPT)		Maximum: 900 mg		
		Rifapentine:		
		10-14.0 kg: 300 mg		
		14.1-25.0 kg: 450 mg		
		25.1-32.0 kg: 600 mg		
		32.1-49.9 kg: 750 mg		
		≥50.0 kg: 900 mg		
		Maximum: 900 mg		
Rifampin (4R)	4 months (120 doses)	10mg/kg	Daily	Rash, drug interactions
		Maximum: 600 mg		
Second-line regimens				
Isoniazid (9H)	9 months (270 doses)	5mg/kg	Daily	Hepatoxicity, peripheral
		Maximum: 300 mg		neuropathy
Alternative regimens				
Isoniazid (6H)	6 months (180 doses)	5mg/kg	Daily	Hepatoxicity, peripheral
		Maximum: 300 mg		neuropathy
Intermittent Isoniazid	9 months (78 doses)	15mg/kg	Twice weekly	Hepatoxicity, peripheral
		Maximum: 900 mg		neuropathy
Isoniazid and Rifampin (3HR)	3 months (90 doses)	Isoniazid:	Daily	Hepatoxicity, peripheral
		5mg/kg		neuropathy, drug interactions
		Maximum: 300 mg		
		Rifampin:		
		10mg/kg		

#### Maximum: 600 mg

#### Long-term care and Retirement Homes: Updated Screening Recommendations for Residents

The <u>Canadian Tuberculosis Standards 8<sup>th</sup> Edition</u> provide the following recommendations for TB screening in Long-term care homes (Chapter 14; section 7.1):

- An assessment of likelihood of respiratory TB should be done on or before admission to a long-term care home.
- A symptom screen to rule out active TB should be done, preferably prior to, and on admission to a long-term care home.
- A posteroanterior and lateral chest x-ray should be performed if a resident is symptomatic, and the resident should be referred for medical assessment if indicated.
- Routine tuberculin skin testing on (or prior to) admission and periodic tuberculin skin tests (such as annually) are not recommended for residents.
- If a resident has had exposure to respiratory TB, the need for testing should be individualized as part of contact tracing.

The Ministry for Seniors and Accessibility (MSAA) released a <u>memo on February 6<sup>th</sup>, 2023</u>, informing that these recommendations should also be followed for retirement homes. The legislative and regulatory framework does not specify the method that should be used for TB screening. As such, operators are encouraged to consult the best practice guidance from the Canadian Tuberculosis Standards, 8th edition: Chapter 14.

## Infectious Disease – St. Thomas Southwestern Public Health

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#### References

World Health Organization. (2023). World Tuberculosis Day 2023.

Canadian Tuberculosis Standard – 8<sup>th</sup> Edition. (2022). Canadian Journal of Respiratory, Critical Care, and Sleep Medicine.

Stop TB Partnership. (2023). World TB Day 2023. https://www.stoptb.org/world-tb-day/world-tb-day-2023