Best Practice Guideline

Care and Management of Pulmonary Tuberculosis (TB) in Long Term Care (LTC) and Assisted Living (AL)

Site Applicability
All Vancouver Coastal Health owned, operated and contracted LTC and AL providers.

Scope
All staff, students, essential visitors and contracted staff in LTC homes.

Purpose
Provide guidance on management of residents with TB Infection and TB Disease in the LTC and AL.
To provide guidance on managing residents with extrapulmonary TB during wound care.

Background
Mycobacterium tuberculosis is a bacterium that can infect various organs/tissues in an individual. TB has been documented in various parts of a human including the lungs, larynx, meninges, bone, joints, and lesions.

Admission Screening to LTC
Prior to admission, assess resident for the presence of TB Disease as per *Community Care and Assisted Living Act* Residential Care Regulation (2024).

A. Tuberculin Skin Testing (TST) for TB infection is not required for admission
B. If symptomatic delay admission until TB ruled out:
    i. After three negative acid-fast bacilli (AFB), alternate diagnosis & patient improvement,
    ii. OR physician no longer suspecting TB.

Signs and Symptoms
Signs and symptoms of TB Disease:
- An unexplained productive cough for more than two to three weeks
- Blood in sputum (hemoptysis)
- Fever, chills, and night sweats
- Fatigue and weakness.
- Loss of appetite and unexplained weight loss.
- Shortness of breath and chest pain.

Risk Factors

Factors that increase the risk of having TB infection or converting from TB Infection to TB Disease include:

Very High Risk
• People living with HIV infection (PLWH) • TB contact within the past 2 years
High Risk
• Chronic kidney disease, dialysis or end-stage kidney disease • Transplant recipients (solid organ or hematopoietic) • Some cancers (lung, sarcoma, leukemia, lymphoma or gastrointestinal) • Abnormal chest x-ray (CXR) - fibronodular disease • Receiving immunosuppressing drugs (e.g., Biologics such as tumor necrosis factor alpha inhibitors (TNFi) or steroid treatments equivalent to 15 mg or more per day for 1 month or longer) • The experience being under housed (i.e., shelters, no fixed address) • Persons who use Injection drugs • High TB incidence country (A country with a TB rate of 50 per 100 000)
Moderate Risk
• Diabetes • Persons who consume three alcoholic drinks or more per day • Persons who use at least one pack of tobacco per day • Abnormal CXR – granuloma • Underweight (less than 90% ideal body weight or BMI less than 20)
Low Risk
• General adult population with no known risk factor • Person with a positive 2-step TST, no known risk factor

Assessment for TB Disease

Reach out to MRP to order new CXR and to collect three AFB (collected at least one hour apart with one specimen taken in the am prior to eating)—if only one AFB ordered clarify with care team directly and ask to order two more.

- Refer to the eLabHandbook for collection and transport requirements.
  Search Mycobacterium for test

Case Definition

- Cases with *Mycobacterium tuberculosis* complex (excluding *M. bovis* BCG strain), isolated by culture from a clinical specimen.
  OR
- Cases with laboratory detection of *Mycobacterium tuberculosis* complex by nucleic acid amplification testing (NAAT) and with clinical findings consistent with current TB disease.

Management of TB Disease

If TB infection suspected, place resident on Airborne Precautions until active pulmonary TB is ruled out. Notify your Infection Control team (ICP-LTC@vch.ca).

Management of TB Infection

Manage residents with latent TB through Routine Practices.

Management of Extrapulmonary TB

During any procedures that may aerosolize drainage in the TB site (i.e., wound care) place residents on Airborne Precautions for the duration of the procedure.

Refer to VCH Diseases and Conditions Table.

Room placement

Place residents with suspected active pulmonary or laryngeal TB on Airborne Precautions.
Resident will be transferred to a facility with Airborne Infection Isolation Room (AIIR) (i.e. Acute Care) as soon as possible.

- On transport, resident will wear a medical procedure mask.
- For residents non-compliant to wearing a procedure mask, transport staff to wear an N95 respirator.
- Site to communicate to transport staff regarding diagnosis for point of care risk assessment for PPE.

Refer to the Airborne and Contact Precautions Best Practice Guideline.

TB Contact Tracing

TB Services is responsible for completing the initial index case review and for providing recommendations to support the contact investigation plan.
TB contact investigation is to identify people who have been exposed to infectious TB disease to ensure they receive appropriate screening, and when indicated, treatment for TB disease or latent TB infection (LTBI).
Pulmonary TB is a reportable communicable disease, and all confirmed cases will be reported to public health by the lab.
TB nurse contact Information:

- Team email: TBNurseConsultants@bccdc.ca
- Nurse Consultant Phone: 604-707-5678

TB control will evaluate and determine the criteria for **staff exposure for contracted and private sites**.

- Staff will be informed by the manager if they are identified as a risk for exposure and given information for follow up.
- VCH Workplace Health will evaluate and follow up on staff exposures.

TB control will evaluate and determine the criteria for resident exposure for owned and operated sites, contracted and private sites.

- The manager/DOC will coordinate resident follow up.

Definitions

Acid-Fast Bacilli (AFB), the test used to confirm presence of mycobacterium tuberculosis.

TB Disease (previously Active TB) Is when TB bacteria are growing and causing symptoms. If the lungs or larynx are infected with TB, Airborne precautions are required, and staff must wear an N95 respirator. Annual fit testing is required for use of an N95 respirator.

Extensively drug-resistant tuberculosis (XDR-TB) is a form of TB caused by bacteria that are resistant to the most effective anti-TB drugs.

Extra pulmonary TB is in the body outside of the lungs and may include lymph nodes, spine, kidneys, joints, eyes, and other organs throughout the body.

TB Infection (previously referred to as Latent TB) is when TB bacteria is present in your body, but your body's defenses (immune system) fight the infection and try to keep it from turning into active TB. Latent TB has no symptoms and cannot be spread to others. TB Infection can convert to TB Disease.

Multi drug resistant TB (MDR TB) is defined as TB that is resistant at least to isoniazid (INH) and rifampicin (RMP), the two most powerful first-line anti-TB drugs.

Tuberculosis (TB) is a bacterium (*mycobacterium tuberculosis)* spread by airborne particulates when in the lungs or larynx. Transmission requires close, frequent and prolonged exposure to a source case.

Contact, a person who has shared the same air with a person with infectious TB.

Tuberculin skin testing (TST) is a type of tuberculin skin test in which purified protein derivative (PPD) is introduced intra-dermally and is used for screening to determine previous exposure to TB.

References

1. British Columbia Centre for Disease Control (BCCDC), (2024) Clinical Prevention Services Decision Support Tool: Non-Certified Practice - Tuberculosis Screening
2. British Columbia Centre for Disease Control (BCCDC), (2024) Communicable Disease Control Manual, Chapter 4: Tuberculosis Appendix B: Infection Prevention and Control
3. British Columbia Center for Disease Control, (2023) TB Manual
4. Government of Canada, (2024) Tuberculosis (TB): Symptoms and treatment.
5. Public Health Agency of Canada, (2022) Canadian Tuberculosis Standards, eighth edition.
6. Canadian Journal of Respiratory, Critical Care, and Sleep Medicine: Vol 6, No sup1

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