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Tuberculosis

REPORTABLE DISEASES TOOLKIT

Information for Health Care Professionals

Reporting Obligations

Tuberculosis is designated as a disease of public health significance and is reportable under the *Ontario Health Protection and Promotion Act*. Report all suspect and confirmed cases within **one business day** to the health unit.

Positive tuberculin skin tests (LTBI) are also reportable.

REPORTING FORM

Epidemiology

Aetiologic Agent:

The infectious agent is the *Mycobacterium tuberculosis complex,* which consists of *Mycobacterium tuberculosis* and includes *M. canetti, M. africanum, M. caprae, M. microti, M. pinnipedii,* and *M .bovis*. Mycobacteria are aerobic, non-spore forming and nonmotile bacteria.

Clinical Presentation:

Among those with newly developed latent TB infection (LTBI), approximately 90% will never develop active disease. The remaining 10% will develop active disease at some point in their lifetime, half of these within the first two years of infection. The risk of developing active TB is higher when other risk factors or comorbidities are involved, such as HIV co- infection. Those with HIV co-infection have an increased risk of 10% per year of developing active TB disease. Symptoms may include persistent cough (of more than 3 weeks), sputum production (sometimes with hemoptysis), chest pain; and shortness of breath, fever and night sweats, loss of appetite and weight loss and fatigue.

Modes of transmission:

Variable. 5% of infected individuals develop primary or progressive primary active disease within 18 to 24 months after infection, and 5% develop post primary disease over the remainder of their lifetime. While the subsequent risk of active pulmonary or extrapulmonary TB is greatest within the first 2 years after infection, without treatment, LTBI will persist for a lifetime.

Incubation Period:

5% of infected people develop active disease within 24 months and 5% will develop over the remainder of their lifetime. Latent TB will persist for a lifetime.

Period of Communicability:

Communicable as long as viable tubercle bacilli are discharged in the sputum. The degree of communicability depends on the number of bacilli discharged, virulence of the bacilli, and adequacy of ventilation, and opportunities for aerosolization through coughing, sneezing or procedures such as intubations, bronchoscopes. For smear positive or symptomatic infections, the period of communicability may be 3 months before symptom onset, asymptomatic smear negative with no evidence of cavities may be infectious 4 weeks prior to date of diagnosis. Effective antibiotic treatment eliminates communicability within 2-4 weeks.

Risk Factors/Susceptibility

The first 18 to 24 months after infection constitutes the most hazardous period for the development of clinical disease. Once infected, the risk of developing active TB disease is influenced by the time since infection, age, and medical conditions or therapies that affect the immune system of the infected person. The risk is highest in the persons recently infected (i.e., the first 1 to 2 years), very young children (under 5 years of age), and in persons who are immunosuppressed, particularly those who have HIV/AIDS, diabetes, and certain types of cancer.

Diagnosis & Laboratory Testing

The use of tuberculin skin test (TST) or interferon gamma release assay (IGRA) for the diagnosis of active TB in adults is not recommended. Testing for active tuberculosis (TB) is indicated for someone with signs and symptoms of TB or is considered to be at high risk of TB disease. Every effort should be made to obtain a microbiological diagnosis, which requires demonstration of acidfast bacilli on smear microscopy and/or culture of ***Mycobacterium tuberculosis.*** Chest radiography is an integral part of the TB diagnosis algorithm but cannot provide a conclusive diagnosis on its own. At least three sputum specimens should be collected and tested with microscopy as well as culture.

TESTING INFORMATION & REQUISITION

Treatment & Case Management

Treatment is under the direction of the attending Health Care Provider. It is recommended that all active or suspect cases of TB be referred to a medical specialist knowledgeable and experienced in the clinical management of TB. Refer to the Canadian Tuberculosis Standards. 8th Edition. 2022.

Public health staff will be involved in case and contact management.

Patient Information

PATIENT FACT SHEET

References

1. Ministry of Health, Infectious Diseases Protocol - Ontario Public Health Standards, 2022.
2. Ontario. Ministry of Health. Infectious Diseases Protocol, Appendix 1: Tuberculosis. Toronto: Queen's Printer for Ontario; 2022 [cited 2024 Mar 12].
3. Public Health Agency of Canada, Canadian Lung Association, Canadian Thoracic Society. Canadian Tuberculosis Standards (8th Edition), 2022.

Additional Resources

1. SMDHU clinical and patient resources
2. OHA. Communicable Disease Surveillance Protocol Guide: November 2019.
3. The Lung Association. Tuberculosis Information for Health Care Providers, 5th Edition; 2015.
4. Simcoe Muskoka HealthSTATS: Tuberculosis
5. Tuberculosis. Toronto: PHO; 2023 Dec 15. [cited 2024 Mar 12].