

Occupational tuberculosis

The incidence of tuberculosis (TB) in Canada has been declining. According to Health Canada, in 2012 the national incidence was 4.8 per 100 000, and in British Columbia 6.1 per 100 000. In certain groups, including Aboriginal communities, newly arrived immigrants from high-endemicity countries, and indigents, the incidence of TB is higher than the population average.

In Canada the risk of occupationally acquired TB is low. Nevertheless, people who work with high-risk groups may occasionally be exposed to infectious individuals. When that happens, the affected worker will require a thorough assessment to determine if he or she has been infected and, if so, that worker should receive treatment.

If your patient suspects that he or she has been exposed to TB at work, encourage him or her to file a claim with WorkSafeBC. You can assist in the claim process by providing relevant clinical information in a timely manner. If medically appropriate, you may also refer the individual to the BC Centre for Disease Control TB clinic for expert assessment and management.

To adjudicate a TB claim, WorkSafeBC requires the following (in addition to basic demographic information):

- The claimant's history of TB exposure, testing, infection status, and treatment
- BCG vaccination status and time of administration
- Place of birth and immigration history

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- Recent travel history
- Work history, including work in high-risk countries and communities, and with high-risk groups
- Detailed information about the exposure, including the work circumstances, duration of exposure, and

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reliable confirmation of exposure to an infectious individual with active TB. An infectious individual is one who is actively coughing, has a confirmed medical diagnosis typically based on positive smear for AFB, or positive cultures and corresponding radiological evidence.

- TB testing results
- Chest X-ray results
- Other test results such as sputum cultures or smears

In cases of active TB disease, treatment should be started based on culture result and recommendations of an infectious disease specialist. For suspected latent TB infections, confirmatory TB testing, including the Mantoux or 5 TU PPD TB skin test (TST) or an interferon gamma release assay (IGRA), is required.

The timing of these tests is important. Tests done within days of the exposure relate to prior infection status, because the cell mediated immune

reaction on which the TB tests are based takes time to develop. Tests related to the recent exposure need to be done at least 4 to 8 weeks after the incident. However, doing both tests can be useful. If the early TST is negative and the second delayed TST is positive, this would be strong evidence that the TB conversion is new and likely related to the recent exposure. Of course, these results could also represent a booster phenomenon. However, unless there's additional compelling clinical evidence of this, the conversion is usually attributed to the recent exposure.

Treatment

Confirmed cases of new latent TB infections typically require prophylactic treatment with a recommended regimen such as INH for 9 months.

For more information

If you have a query or need more information regarding a TB claim, contact Peggy Tunks, client services manager in WorkSafeBC's Occupational Disease Services, at 604 231-8842. Or contact your patient's claim manager or a medical advisor in the nearest WorkSafeBC office.

—Sami Youakim, MD,
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**WorkSafeBC Occupational
Disease Services**

Additional reading

BC Centre for Disease Control. Annual summaries of reportable diseases. Accessed 20 January 2016. www.bccdc.ca/health-professionals/data-reports/annual-summaries-of-reportable-diseases.

Public Health Agency of Canada. Canadian tuberculosis standards, 7th edition. Accessed 20 January 2016. www.phac-aspc.gc.ca/tbpc-latb/pubs/tb-canada-7/index-eng.php.