NT Health

Guideline

Due for review: 24/04/2030

Screening for Tuberculosis in NT Healthcare Workers

Contents

NORTHERN TERRITORY GOVERNMENT

Applicability

This guideline applies to:

- health care workers and other staff at occupational risk of tuberculosis.

Guideline statement

This guideline is recommended for the screening of tuberculosis in Northern Territory health care staff.

Policy suite

This guideline forms part of:

- Guidelines for the Control of Tuberculosis in the Northern Territory (NT Health Digital Library)
- Pre-employment Health Screening Policy

Guideline details

Health care workers and other staff at occupational risk of TB

Screening for tuberculosis (TB) is recommended for anyone who engages in direct contact with people at risk of having active TB. Such screening for NT Department of Health (DoH) staff is a prerequisite of employment. Other workers at risk who are not employed by DoH are strongly recommended to undergo the same screening procedures as outlined below. These guidelines cover staff, volunteers and students. Employers/managers are encouraged to provide education to their personnel in relation to the recommendations in this guideline. Screening with tuberculin skin test (TST) (also called Mantoux test), and any necessary treatment, is provided free to employees of both the public and private sectors. (See Chapter 6 for details of *M. tuberculosis* infection testing).

Health care workers (HCW) are potentially at risk of being infected from contact with pulmonary TB patients, but those coming from/having worked in countries with high TB prevalence rates are at high risk of having *M. tuberculosis* infection [Latent TB Infection {LTBI)] and progressing to TB over time. For this reason all HCW should be screened for *M. tuberculosis* infection (LTBI) and managed appropriately.

Health care workers in the NT at risk of TB exposure

Workers within the healthcare system in the NT include staff employed by NT Health who are at risk of being infected with TB through direct contact with patients or patient environments, or through the handling of potentially TB infected materials. They include but are not exclusive to:

- Aboriginal and Torres Strait Islander health practitioners
- doctors
- nurses
- dental practitioners
- patient care assistants/patient services assistants
- physiotherapists

- radiographers
- occupational therapists, speech therapists
- cleaners, cooks, domestics, kitchen hands and catering assistants
- admissions clerks, ward clerks and other administrative hospital personnel
- Aboriginal liaison officers
- laboratory staff who handle suspected or known TB materials
- mortuary staff
- volunteers who volunteer in a health facility.

A list of staff employed outside NT Health who are recommended to undergo TB screening can be found on the NT government website: https://nt.gov.au/wellbeing/healthy-living/immunisation/your-job-and-vaccinations.

If there is uncertainty about whether an employee requires screening for TB, please contact your local TB Unit or the infection prevention management unit at your local hospital.

Rationale for screening

- To establish a baseline result to compare to future testing.
- To identify LTBI in workers who have been exposed in the past and offer appropriate treatment and follow up options.
- To identify and treat active TB, offer appropriate counselling, and prevent transmission.

What does TB screening involve?

TB screening involves a clinical risk assessment and baseline testing.

Clinical risk assessment

All NT Health workers should undergo a risk assessment to ascertain the likelihood of previous TB exposure and to assess risk of future exposure at work.

Risk assessment and screening of all commencing NT Health workers is required, in accordance with the Pre-employment Health Screening Policy. TB Unit staff may also carry out risk assessment and screening as part of contact tracing and for health workers exiting NT Health. Factors that may increase the likelihood of TB exposure include:

- country of birth
- residence and/or work in a high incidence country for more than 3 months
- past history of TB
- past history of contact with TB through work or personal exposure
- area of work (e.g. emergency department, TB clinic, bronchoscopy theatre, places that have a higher risk of TB exposure).

Baseline testing and two-step TST testing

All NT Health workers at risk of TB exposure (Categories A & B as per Pre-employment Health Screening Policy) are required to have a baseline test known as a tuberculin skin test/ Mantoux test (TST) OR a blood test for an Interferon Gamma Release Assay (IGRA), unless contraindicated. The TST test is the preferred test in the NT and is provided free to employees of both the public and private sectors.[1]

The requirement for a baseline TST test or IGRA is waived if there is documented evidence of a negative TST/IGRA done within the previous 3 months, or a previous known positive TST/IGRA.

Those with **known previously positive TST/IGRA** require review with their local TB unit or specialist (Infectious Disease or Respiratory). A clearance letter must be obtained and sighted prior to commencement.

Staff from high prevalence countries who work in high-risk areas are encouraged to have a two-step TST test at baseline (two tests 1-3 weeks apart) unless the individual has had a TST test in the previous 12 months.

High risk areas for two step TST include

- emergency departments
- bronchoscopy theatre
- TB clinics
- induced sputum sites
- mycobacterial laboratories
- respiratory and infectious disease departments.

Staff should be provided with copies of all their TST or IGRA test results. All tests conducted in the NT TB units results will be recorded in Community Care Information System (CCIS), so staff can access this information by contacting NT TB units. It is the responsibility of staff to obtain evidence of these results and provide them as required in accordance with the Pre-employment Health Screening Policy.

Contraindications to baseline TST and IGRA testing

- Previously positive TST or IGRA, or known previous tuberculosis (active disease).
- Previous TST test causing a severe immediate hypersensitivity reaction.

Relative contraindications that require consultation before baseline testing:

- short term immunosuppressive therapy that may cause false-negative response
- recent live virus vaccination (e.g. MMR, varicella vaccines) – within 6 weeks
- previous TST test causing severe skin reactions.

A baseline CXR should be done where baseline TST and IGRA is contraindicated. Staff should be provided with copies of all their CXR reports.

Management of abnormal results

Workers with a positive or borderline TST result, or positive or indeterminate IGRA test result, require further follow up with their local TB unit located within the Centre for Disease Control (CDC).

This involves a clinical review in the TB clinic, and often also involves a chest X-ray (CXR). If a CXR has been completed within the previous 3 months, the film or its report may be acceptable.

Once reviewed a plan for any treatment and follow up will be made and documentation will be supplied to the worker as evidence of required follow up or clearance. A copy of the clearance letter will be given to the staff member who in turn will give copy to Staff Health to store on their confidential database. The staff member should also retain a copy for their records.

TB education for all healthcare workers during induction process

It is recommended that all staff, students and volunteers who may potentially be exposed to people with active TB receive education about TB. This should be an integrated part of the induction process for new employees whether full time or casual. Resources are available from TB Unit CDC.

Education should include the following:

- how TB is transmitted
- the natural history of TB infection
- clinical features of active TB
- the importance of prompt diagnosis and isolation for patients with infectious active TB
- measures that can be taken to prevent acquisition of TB, both at the personal and institutional level
- the role of TST testing and regular screening programs
- procedures for contact tracing, referral, treatment of LTBI and counselling for people infected with TB during the course of their employment
- the policies and procedures of the institution regarding TB prevention and control.

Ongoing screening

Annual TB screening is no longer recommended for those working in NT health facilities, however rigorous contact tracing will be implemented for staff in contact with a TB case.

Contact tracing of staff exposed to active infectious TB cases

Staff will be contacted, or can self-report if they have been identified as having been in contact with a confirmed case of TB to the TB unit. Follow up of close contacts includes:

- TST testing at confirmation of the index case's diagnosis and at 8 – 12 weeks following diagnosis if the first test is < 10mm (negative test) or negative IGRA
- an initial CXR and clinical review for any staff deemed to have been a TB contact who are already known to be TST or IGRA positive and provide 2.5 year follow-up with CXRs and clinical reviews or LTBI treatment where indicated.

NT healthcare employees' responsibilities

- Comply with this guideline and ensure maintenance of adequate infection prevention and control standards in the workplace.
- Present promptly for medical assessment at the onset of any signs or symptoms suspicious of active TB (such as persistent cough for more than 2 weeks, haemoptysis, recent weight loss, fevers or night sweats). Ensure appropriate follow up is undertaken as per guidance from the local TB unit to minimise risk to self and others.

Healthcare workers exiting NT health employment

It is strongly recommended that staff have an exit TST or IGRA test (unless contraindicated) at the termination of employment and provided with copies of these results.

Definitions

Term	Definition
CCIS	Community Care Information System.
CDC	Centre for Disease Control.
CXR	Chest x-ray.
DoH	Department of Health.
Guideline	Establishes the key principles and provisions that govern the decision –making process. Guidelines include advisory and explanatory statements offering detail, context or recommendations for good practice and decision making which support policies and procedures. **In a clinical context these are usually mandatory. Any deviation from the guideline must be approved and documented.** (NT Health Policy Development Procedure).
HCW	Health care workers
IGRA	Interferon Gamma Release Assay test.
LTBI	Latent Tuberculosis Infection.
Policy suite	A collection of documents on a specific subject matter that is corporate or clinical in nature, in order of hierarchy as per the document pyramid in the Policy Governance Framework Model. A policy suite would usually consist of a parent policy and be supported by a procedure and/or guideline (NT Health Policy Development Procedure).
TB	Tuberculosis.
TST	Tuberculin Skin Test.

Appendix A: References

- Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook, Australian Government Department of Health and Aged Care, Canberra, 2022, immunisationhandbook.health.gov.au.
- Justin Waring and the National Tuberculosis Advisory Committee. National Tuberculosis Advisory Committee Guideline: Management of Tuberculosis Risk in Healthcare Workers in Australia. *Communicable Diseases Intelligence* 2017;41(3):E199-203.

Document history

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National Safety and Quality Health Service standards

National Safety and Quality Health Service standards							
Clinical Governance	Partnering with Consumers	Preventing and Controlling Healthcare Associated Infection	Medication Safety	Comprehensive Care	Communicating for Safety	Blood Management	Recognising & Responding to Acute Deterioration
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