

Infection Prevention & Control Measures for Patients with Pulmonary Tuberculosis

Contents

Policy	1
Purpose	1
Scope/Audience	1
Associated documents	1
1.1 Use of Transmission-based Precautions in hospital	2
1.2 Airborne Precautions	2
1.3 Aerosol generating procedures	3
1.4 Precautions for patient movement and transfer outside of isolation room	3
1.5 Extra-pulmonary tuberculosis precautions.....	3
1.6 Criteria for ending isolation	3
1.7 Staff caring for patients with tuberculosis.....	4
Measurement/Evaluation	4
References	4

Policy

Appropriate infection prevention & control measures will be implemented by CDHB and non-CDHB staff caring for patients with pulmonary Tuberculosis.

Purpose

This policy is intended to be used in conjunction with clinical guidelines for care of patients with pulmonary tuberculosis and to assist staff in the infection prevention and control requirements for these patients.

Scope/Audience

All CDHB employees and other students/practitioners involved in patient care and effectively acting under CDHB supervision

Associated documents

- CDHB IPC Policy Transmission-based Precautions

**The latest version of this document is available on the CDHB intranet/website only.
Printed copies may not reflect the most recent updates.**

- CDHB IPC Guidelines for the use of the ventilation system in the negative pressure isolation rooms
- “Why am I being Nursed in Isolation” (Ref 0106)

Isolation is an important public health protection measure for pulmonary tuberculosis and may occur in hospital or in the community

1.1 Use of Transmission-based Precautions in hospital

Infectious patients should be admitted to hospital and transmission-based precautions implemented if they are:

- sufficiently unwell as to require admission to hospital
- unable to comply with the community infection control precautions

If there is a suspicion of pulmonary tuberculosis on admission/initial assessment, the patient should be given a surgical mask to wear and a negative pressure isolation room sought as soon as possible.

1.2 Airborne Precautions

- Airborne Precautions must be used to care for patients with suspected or confirmed infectious pulmonary tuberculosis. Airborne Precautions are used in addition to Standard Precautions.
- An airborne isolation room with an anteroom and an ensuite bathroom should be used. This room will have negative air pressure in relation to the surrounding areas (with a pressure differential of 10-15 pascals) and appropriate discharge of air outside or high-efficiency filtration of room air before it is circulated to other parts of the hospital.
- When an Airborne Isolation room is unavailable, a single room with anteroom and ensuite may be used for suspected patients after consultation with the IP&C team or the Respiratory Medical team.
- All clinical staff who enter the room should wear respiratory protection (Particulate respirator/N95 masks). N.B. A surgical mask is not adequate protection for staff or visitors.
- Children are rarely infectious; however, advice should be sought from the infectious disease/respiratory consultants regarding isolation needs.

**The latest version of this document is available on the CDHB intranet/website only.
Printed copies may not reflect the most recent updates.**

- Particulate masks should also be offered to visitors although a risk assessment in relation to their previous exposure (e.g. if they have been living with the patient prior to admission) may be carried out by nursing/medical staff who may not deem this necessary as contact tracing will be undertaken for these individuals.
- A patient with suspected or proven drug resistant TB especially Multi-Drug resistant TB should always be isolated in a negative pressure room

1.3 Aerosol generating procedures

- Aerosol generating procedures such as induced sputum's and bronchoscopy must be carried out using Airborne Precautions in a room with negative air pressure even when tuberculosis is only remotely possible as a diagnosis.
- Particulate respirators (N95 masks) must be worn by all staff undertaking or present in the room during these procedures.

1.4 Precautions for patient movement and transfer outside of isolation room

- Infectious patients must wear a surgical mask when leaving the isolation room e.g. for investigations in other parts of the hospital and be instructed to keep this on at all times while out of the isolation room

1.5 Extra-pulmonary tuberculosis precautions

- Patients with tuberculosis infection of a wound, cysts, perineum or any other non-pulmonary site does not require isolation and Airborne Precautions
- Where a care of a TB infected wound may generate aerosols e.g. irrigation of the wound bed, particulate respirators (N95 masks) and gloves are required.
- N95 masks should be worn when emptying peritoneal bag fluid from a patient diagnosed with peritoneal TB.

1.6 Criteria for ending isolation

- Patients with smear-positive pulmonary TB may be considered for removal of isolation based on the following criteria but is at the discretion of the treating physician *:
 - The patient has had a minimum of 2 weeks effective chemotherapy

**The latest version of this document is available on the CDHB intranet/website only.
Printed copies may not reflect the most recent updates.**

- The patient has stopped coughing
- The patient is infected with a fully sensitive strain of Mycobacterium tuberculosis
- The patient is responding well to treatment
- At least 2 of the patient's sputum specimens are smear-negative or the patient remains smear-positive but is culture negative.

*NB these are not discharge criteria as many patients may be able to continue isolation at home following clinical/nursing assessment.

Many patients will have ceased to produce sputum after 2 weeks' treatment and are unlikely to be infectious. If spontaneous sputum specimens cannot be obtained, supervising nursing staff must be sure the patient is no longer coughing before the decision is made to end isolation.

1.7 Staff caring for patients with tuberculosis

- Mask fit- testing of staff is no longer a routine requirement. However staff must make sure that the mask worn forms a tight seal around nose/mouth before entering isolation room.
- If there has been exposure to patients with tuberculosis before diagnosis is made (>8 hours cumulative exposure), appropriate follow up will be carried out by Occupational Health.

Measurement/Evaluation

Regular review of the policy. Assessment of staff knowledge during environmental audits and ward rounds.

References

1. Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007. CDC June 2007
2. Ministry of Health Revised Guidelines for Tuberculosis Control in New Zealand 2010
3. The effect of respirator training on the ability of healthcare workers to pass a qualitative fit test. Infect Control Hosp Epidemiology, 17, 636-40
4. Health (Protection) Amendment Act 2016

Policy Owner	CDHB Infection Prevention & Control Service
Policy Authoriser	Executive Director of Nursing
Date of Authorisation	9 September 2015

**The latest version of this document is available on the CDHB intranet/website only.
Printed copies may not reflect the most recent updates.**