# SESLHD PROCEDURE COVER SHEET

Health
South Eastern Sydney
Local Health District

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| **NAME OF DOCUMENT** | Tuberculosis: Patient Management |
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| **EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR** | Trish Bradd<br>Director Clinical Governance |
| **AUTHOR** | SESLHD Infection Control Procedure Working Party<br>seslhdinfectioncontrolDL@health.nsw.gov.au |
| **POSITION RESPONSIBLE FOR THE DOCUMENT** | SESLHD Infection Control Procedure Working Party<br>seslhdinfectioncontrolDL@health.nsw.gov.au |
| **KEY TERMS** | Tuberculosis, patient management |
| **SUMMARY** | To outline the infection control principles for the management of a patient admitted with suspected or confirmed tuberculosis (TB). |



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## 1. POLICY STATEMENT

The TB Coordinator at the Chest Clinic and the Infection Prevention and Control Professional must be notified of all patients admitted with a diagnosis, or provisional diagnosis, of TB.

Patients diagnosed or with a provisional diagnosis of pulmonary, laryngeal or extra pulmonary TB where there is a discharging lesion are to be managed using Airborne Precautions in addition to Standard Precautions. The risk of transmission for a patient with extra pulmonary TB is to be assessed by the TB Coordinator. Contact tracing of patients with confirmed TB is managed by the TB Coordinator.

Extra Pulmonary TB where there is no discharging lesion and pulmonary TB has been ruled out requires Standard Precautions only (consult with TB or Infection Control Coordinator). Extra pulmonary TB is not considered to pose a significant risk of transmission.

Triaging of patients suspected of a transmissible infection or disease should occur in a manner that prevents contamination of the environment and transmission in waiting rooms. Suspected patients should be moved from public waiting rooms to a single patient accommodation area while awaiting treatment.

Staff who care for patients with TB must be on a screening program as specified in the NSW Ministry of Health PD2011_005 Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases

## 2. BACKGROUND

This document outlines the management of a patient known or suspected to be infected with pulmonary or laryngeal tuberculosis (TB) and extra pulmonary TB where there is a discharging lesion.

## 3. RESPONSIBILITIES

### 3.1 Employees will:

- Comply with the management procedures for all patients with suspected or confirmed tuberculosis
- Ensure the patient and their visitors understand the need for additional precautions
- Provide education to the patient and visitors on how they must comply with the management procedures
- Document the care given to the patient.

### 3.2 Line Managers will:

- Ensure all patients with suspected or confirmed tuberculosis are managed as outlined in this procedure
- Ensure all staff comply with this procedure

- Ensure all staff receive appropriate education regarding the management of patients suspected or confirmed tuberculosis
- Ensure all the patients and their visitors understand the need for additional precautions.

**3.3 Infection Prevention and Control Staff will:**

- Provide education to staff to ensure they understand the rationale for this procedure
- Assist with ensuring the patient and their visitors understand the need for these additional precautions
- Document education provided to staff, patients and visitors
- Liaise with TB Coordinator/Chest Clinic staff.

**3.4 TB Coordinators/Chest Clinic staff will:**

- Assess the risk of transmission
- Organise contact tracing of potential contacts
- Coordinate appropriate follow up treatment of patients and potential contacts
- Provide education to Health Care Workers, patients and their immediate family.

**3.5 Network Managers/Service Managers will:**

- Distribute information to line managers
- Ensure resources are available for the appropriate management of patients with suspected or confirmed tuberculosis.

**3.6 Medical staff will:**

- Comply with the management procedures for all patients with suspected or confirmed tuberculosis
- Ensure the patient understands the need for additional precautions
- Provide information and explanation to the patient on their disease process
- Document care given to patient.

## 4. DEFINITIONS

**Active TB:** disease state where transmission of tuberculosis is possible.

**Additional (transmission based) Precautions:** are designed for patients known, or suspected, to be infected with pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission in health organisations. Additional Precautions are also designed to protect immunocompromised patients from acquiring healthcare associated infections whilst in protective isolation.

**Airborne Precautions:** precautions applied to patients known, or suspected, to be infected with pathogens that can be transmitted by the airborne route, to reduce the risk of transmission of infectious agents.

**Airborne transmission:** occurs by dissemination of either airborne droplet nuclei (small-particle residue {5μm or smaller in size} of evaporated droplets that may remain suspended in the air for long periods of time) or dust particles containing the infectious agent.

**Alcohol-based hand rub/gel:** an alcohol-containing preparation designed for reducing the number of viable micro-organisms on the hands.

**Extra-pulmonary TB:** refers to disease outside the lungs.

**Health care settings:** any place where health care is provided to patients on a commercial or public health basis**.**

**Health care workers (HCWs):** persons, including students and trainees, whose activities involve contact with patients or with blood or body substances from patients.

**Laryngeal TB:** tuberculosis of the larynx.

**Particulate mask (P2, N95 or PFR95):** a mask which provides a tight facial seal with a face-seal leakage of < 10 % and ability to filter particles 1 micron in size in the unloaded state with a filter efficiency of greater than/equal to 95% given flow rates of up to 50 litres per minute.

**Personal protective equipment (PPE):** equipment designed to prevent contamination of the health care worker and/or their clothing, for example gloves, goggles, face shield, gown, mask.

**Pulmonary TB:** Tuberculosis of the lung.

**Qualitative fit test:** a facial fit test conducted to assess the fit of a P2 mask giving pass/fail results and relying on the subject's response to a test agent.

**Quantitative fit test:** a facial fit test conducted to assess the fit of a P2 mask giving numerical results and not relying on the subject's response to a test agent.

**Respiratory hygiene/cough etiquette comprises of:**

- covering the nose/mouth with a tissue when coughing or sneezing
- using tissues to contain respiratory secretions
- spitting into a tissue, if spitting is necessary
- disposing of tissues into the nearest rubbish bin after use
- performing hand hygiene after contact with respiratory secretions and contaminated objects/materials eg. tissue.

**Standard Precautions:** precautions designed to reduce the risk of transmission of microorganisms from both recognised and unrecognised sources of infections in health care settings.

**Tuberculosis (TB):** Tuberculosis is a disease caused by infection with the bacteria Mycobacterium tuberculosis. TB can affect any part of your body (extra-pulmonary TB) but usually affects the lungs. It is generally transmitted by the inhalation or ingestion of infected droplets and usually affects the lungs, although infection of multiple organ system occurs.

## 5. PROCEDURE

### 5.1 Inpatient Accommodation

- Single room with ensuite facilities
- Door to remain closed
- Airborne precautions sign to be placed prominently on entrance to room
- Negative pressure air-conditioning to be used (if available)
- For dual positive/negative rooms: do not use a positive pressure air conditioning system
- If negative pressure air-conditioning is not available, consult with TB or Infection Control Coordinator

### 5.2 Hand hygiene

- Hand hygiene to be performed on leaving the room and after removal of PPE

### 5.3 Masks

- A particulate filter personal respiratory protection device or P2/N95 mask, is a close fitting mask worn for Airborne Precautions, which is capable of filtering 0.3µm particles
- A mask must be discarded once it has been worn, or becomes visibly soiled or moist, and must not be used again. When the mask becomes moist from the wearer, or from contamination, the barrier has been breached and the mask is no longer effective
- A mask must be removed by touching the strings/ties or loops only
- The P2/N95 mask (for airborne precautions) should be removed outside the room, after the door has been closed.

#### *5.3.1 Fit Checking of P2 or N95 masks*

- Staff and visitors should perform fit checks every time they wear a P2 (N95 equivalent) mask
- Fit checks ensure the mask is sealed over the bridge of the nose and mouth and there are no gaps between the mask and face
- No activity should be undertaken until a satisfactory fit has been achieved
- Staff and visitors who have facial hair must be made aware that an adequate seal cannot be guaranteed between the mask and the wearers face
- The manufacturer's instructions for fit checking of individual brands and types of P2/N95 masks should be referred to at all times.

#### *5.3.2 Inpatients who are permitted to leave room*

- Patients must wear a surgical mask when leaving the room for any reason

- Patients on oxygen therapy must be changed to nasal prongs and wear a surgical mask over the top of the nasal prongs if condition allows
- Patients must be provided with instructions for donning and removal of mask
- Patients are not required to wear a mask when staff or visitors are entering their room
- If patient is unable to wear a surgical mask staff should consult the TB Coordinator at Respiratory Medicine.

#### *5.3.3 Health Care Workers*

- Particulate mask (P2 or N95) to be worn by all HCWs entering the room of patients diagnosed or with a provisional diagnosis of TB and removed **after** leaving the room
- Perform hand hygiene before and after discarding mask.

#### *5.3.4 Visitors/Family*

- Visitors must wear a particulate mask (P2 or N95) on entering the room and removed after leaving the room
- Perform hand hygiene before and after discarding mask.

### 5.4 Catering

- Catering staff to leave meal trays outside patient's room and inform nursing staff
- Nursing staff are to deliver and remove meals from the patient room.

### 5.5 Linen

- As per Standard Precautions.

### 5.6 Excreta

- As per Standard Precautions.

### 5.7 Waste

- No additional precautions necessary **except** for dressings from open TB wounds or TB discharging lesions. These dressings are to be discarded as general waste unless significant blood or body fluid involved.

### 5.8 Cleaning

- Room to be cleaned daily with neutral detergent solution
- Cleaning staff must observe the same airborne precautions as other staff when entering the room.

### 5.9 Patient Equipment

- Single patient use equipment where possible
- Other equipment must be cleaned between patients.

### 5.10 Patient Education

- Patient should be educated on:
  - requirements for isolation
  - the need for transmission based precautions
  - how and when to wear a mask

- to cover mouth and nose when coughing and sneezing
- the correct handling and disposal of sputum

- TB Coordinator will provide full counselling and education on disease, transmission, treatment, contact screening for relatives and friends and likely clinical outcome.

### 5.11 Specimen Collection

- All specimens must be collected in a container with a lid which can be secured
- For sputum induction refer to NSW Ministry of Health GL2009_006: Tuberculosis Sputum Induction Guidelines

### 5.12 Visitors:

- should be limited during infectious period e.g. 2 visitors at a time
- to consult with nursing staff before entering room
- other than household contacts to be discouraged
- to be given clear instructions regarding necessary precautions to be followed
- must wear and be educated on how to put on a particulate mask (P2 or N95) on entering the room
- children should be discouraged from visiting.

### 5.13 Transport/transfer of patient

- Limit transfer to other wards/facilities
- Where possible tests/investigations/procedures to be conducted in patient's room
- Receiving department/facility and transport services **must** be notified **prior** to patient transfer
- Patient to wear a surgical mask when leaving the room for any reason
- Patients on oxygen therapy must be changed to nasal prongs and a surgical mask placed over the top of the nasal prongs if condition allows; and
- If patient unable to wear a surgical mask staff should consult the TB Coordinator at the Chest Clinic

### 5.14 Bronchoscopy for inpatients

- Healthcare Workers to comply with airborne precautions
- Negative pressure rooms are preferable; however, if negative pressure is not available in the room where the bronchoscopy is to be performed
  - Ensure the room is set up prior to patients arrival
  - Limit staff movement in and out of the room
  - Limit number of staff in the room for procedure
  - Surgical mask to remain on patient until procedure commences
  - Preferably recover patient in the room
  - Ensure patient has surgical mark on prior to leaving the room
- Consult with TB Coordinator for management of patients with drug resistant TB.

### 5.14 Duration of Isolation

- Airborne transmission precautions are required for a minimum of two weeks after optimum chemotherapy/antibiotic therapy is commenced, and/or when the client has three consecutive sputum samples that are direct smear negative

- Do not remove the patient from isolation without approval from the medical team (treating physician) and the TB Coordinator.

### 5.15 In Hospital Contacts

If TB diagnosis is made after the patient's admission to hospital, the patient is to be isolated as outlined in this document. The contact details of all patients in the room and staff who have cared for the patient are to be provided to the TB Coordinator during normal business hours.

## 6. DOCUMENTATION

Patient Clinical Notes

## 7. AUDIT

Not required

## 8. REFERENCES

- NSW Ministry of Health PD2007_036 Infection Control Policy
- NSW Ministry of Health PD2008_017 Tuberculosis Contact Tracing
- NSW Ministry of Health GL2009_006: Tuberculosis Sputum Induction Guidelines
- NSW Ministry of Health PD2014_050 Principles for Management of People with Tuberculosis in NSW
- NSW Ministry of Health PD2011_005_Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases
- SESLHDGL/029 Infection Control: Cleaning (Shared) Patient Care Equipment Guideline

## 9. REVISION AND APPROVAL HISTORY

| Date | Revision No. | Author and Approval |
|---|---|---|
| August 2008 | 0 | Contact H Newman. Former Illawarra Health Infection Control Policy reviewed and merged for SESIAHS in consultation/collaboration with SESIAHS Infection Control Manual Working Party. |
| April 2011 | 1 | Amendment to reflect change to Local Health Network |
| March 2016 | 2 | Updated to inpatient care only and to Local Health District |
| April 2016 | 2 | Changes endorsed by Executive Sponsor |