Policy 6.1  Contact Tracing for Tuberculosis

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<td>Western Australia (WA) Tuberculosis Control Program Policy 6.1</td>
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<tr>
<td>Policy Statement</td>
<td>This document describes the principals and procedures for contact tracing in active tuberculosis (TB) in Western Australia.</td>
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Related WA TB Control Program Policies

1.1 Diagnosis of tuberculosis – Laboratory  
1.2 Diagnosis of tuberculosis – Clinical  
2.1 Medical treatment of tuberculosis (adults)  
2.2 Case management of tuberculosis  
3.1 Diagnosis of latent tuberculosis infection  
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9.3 Fees and charges associated with tuberculosis and leprosy treatment

Document Control

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APPENDIX A: ALGORITHM FOR THE INVESTIGATION OF HOUSEHOLD OR CLOSE CONTACTS (> 5 YEARS OLD) OF TB. ..............................................................................................................................................................................20

APPENDIX B: ALGORITHM FOR THE INVESTIGATION OF CASUAL CONTACTS OF TB ........................................ 21
Policy 6.1 Contact Tracing for Tuberculosis

1.0 Introduction

The investigation and treatment of contacts of active tuberculosis infection is an important part of the control of tuberculosis (TB), and effective contact tracing has been recognised as an important strategy for TB control in Australia (CDNA, 2002). In the United Kingdom up to 10% of new cases of tuberculosis are diagnosed through contact tracing and tuberculosis occurs in around one percent of contacts, usually found on the first visit of contacts of smear positive index cases (NICE, 2011). The risk of infection and disease is highest within 2 years of exposure to TB and the early identification of contacts and new cases is an important aspect of TB management.

2.0 Rationale

The aims of contact tracing are:

i. To detect a case of active tuberculosis that transmitted TB to the diagnosed index case,

ii. To detect latent tuberculosis infection (LTBI) or active TB (a secondary case) due to transmission from the index case, and

iii. To identify other cases that have TB acquired from an un-identified source that is shared with the index case (cohort effect).

3.0 Background

3.1 Governance

TB contact tracing will normally be undertaken by the TB Control Program. Primary oversight is provided by the TB Case Manager for the index case, who in turn reports to and seeks advice from the Medical Director for TB Control. Occasionally, contact tracing will be undertaken by other agencies, in which case it should still be carried out in consultation with the TB Control Program. This is especially when contact tracing is required in a hospital (see section 5.3 below for more detail). Contact tracing for TB cases in rural and remote areas can be done by the relevant WA regional public health unit.

There is no specific legislation governing contact tracing, other than the requirement that information on contacts must be collected and kept in compliance with privacy laws.

3.2 Principle of procedure

Contact tracing for tuberculosis is conducted based on the "stone in the pond" principle (see Figure 1) i.e. identifying logical (temporally & spatially) circles of contacts in
decreasing closeness of contact, which form concentric circles. Testing is then done in a stepwise fashion until no positive results are found.

Figure 1: Stone-in-a-pond Principle of Contact Tracing

Household or close contacts are tested first and then testing is extended to lesser or casual contacts if the initial yield for positive results is high. The degree to which this is extended depends on the factors affecting infectiousness described below, and most importantly the sputum smear result of the index case.

3.3 Definitions

3.3.1 Index case

The index case is the person diagnosed with TB that leads to the contact tracing. If the contact tracing identifies a new case of active TB, this then becomes a new index case that requires independent (though often overlapping) contact tracing.

3.3.2 Household (close) contacts

Household contacts are people who share a bedroom, kitchen, bathroom or sitting room with the index case and have prolonged exposure. Prolonged exposure is a cumulative total exposure exceeding eight hours. Other contacts that spend greater than 8 hours within an enclosed area (e.g. shared hospital room, dormitory, other residential institution, but not a school room or work space) are considered equivalent to household contacts and should be included for contact tracing contacts in addition to the household ones (National Institute for Health and Clinical Excellence, 2011).
3.3.3 Casual contacts:

Casual contacts are those who have less exposure to the index case, but the total cumulative exposure time is estimated to be greater than 8 hours. These tend to be people that have contact with the index case outside his / her primary place of residence and include work or school contacts. Employees that might have left the workplace but did have an exposure risk to the index case may be omitted from current employee lists and should also be offered screening.

3.4 Factors influencing the infectiousness of TB

3.4.1 Characteristics of the index case

The characteristics of the index case that have an influence on the infectiousness of TB in the index case and the subsequent risk to contacts are presented in the table overleaf (CDC, 2005):
### Site of infection

Patients with pulmonary or laryngeal TB can transmit their infection.

Extra-pulmonary TB only, with no evidence of pulmonary TB (i.e. no respiratory symptoms, normal chest x-ray and negative sputum AFB culture if collected), has a negligible risk of TB transmission. Contact tracing is performed primarily to identify a source case and others infected by the same source case. This group includes pleural TB without lung involvement.

### Sputum microscopy

Sputum smear positive tuberculosis in which acid-fast bacilli are seen on direct microscopy indicates higher infectiousness. Sputum smear negative, but culture positive, TB is less infectious.

Respiratory specimens like bronchial washing and bronchoalveolar lavage are regarded as the same as sputum.

### Radiographic findings

Cavitation observed on chest x-ray is associated with higher infectiousness than noncavitating pulmonary disease.

### Age of index case

Transmission of TB from children aged <10 years is unusual.

### HIV status

TB patients who are also infected with HIV may have chest x-ray findings that are not typical of pulmonary TB e.g. less likely to have upper lobe infiltrates and cavities. Atypical x-ray findings may contribute to a delay in diagnosis, which increases transmission.

### Patient behaviour

Frequent coughing and sneezing are associated with increased risk of TB transmission. Singing is also associated with TB transmission risk.

Close social networks of the index case may have an increased risk of infection depending on the intensity of exposure. The lifestyle of the index case may reveal close contacts other than in the household or workplace e.g. aircraft travel, itinerant cases, prostitution.

Certain lifestyles and behaviour create difficulties in identifying contacts of the index case, in compliance with treatment and follow up of the index case e.g. IV drug use, homelessness, chronic alcoholism and mental health co-morbidity.
### 3.4.2 Characteristics of contacts

The characteristics of the individual identified as contacts that have an influence on the risk of TB infection and development of TB disease are:

<table>
<thead>
<tr>
<th><strong>Age of the contact</strong></th>
<th>The risk of disease progression after infection is higher in children &lt;2 years old (Marais, Schaaf, &amp; Donald, 2009).</th>
</tr>
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<tr>
<td><strong>Co-morbid conditions of contacts</strong></td>
<td>Contacts who have risk factors that increase their risk of developing active tuberculosis, should be considered for screening at a lesser level of exposure time (at the discretion of those conducting the contact tracing). The risk factors include:   - HIV infection   - Immunosuppressive therapy such as treatment with anti-tumour necrosis factor (TNF) alpha medications, post organ transplantation immunosuppression or other immunosuppressant therapy equivalent to prednisolone 15mg/day for 1 month or more   - Silicosis   - Poorly controlled diabetes mellitus   - Chronic renal failure/haemodialysis   - Leukemia or lymphoma   - Cancers of the head, neck or lung   - Persons who have had gastrectomy or jejunoileal bypass   - Malnutrition   - Medical conditions as a consequence of excessive alcohol use or illicit drug use</td>
</tr>
<tr>
<td><strong>Proximity to index case</strong></td>
<td>The amount of time in contact with the index case and the environment in which the contact occurred. A higher risk of TB infection is found in:   - Household contacts   - Exposure within a confined space   - &gt; 8 hours cumulative exposure</td>
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3.5 **Extent of contact tracing**

3.5.1 **Timeframe**

Contact tracing should begin as soon as possible after an index case has been diagnosed with tuberculosis. Contacts of an index case should be determined from the time of first symptom onset, with the focus being on the duration of cough, and continued until the index case is no longer thought to be infectious. If the index case is asymptomatic, usually only household contacts are tested.

3.5.2 **Who to contact trace**

All household or close contacts of pulmonary tuberculosis should be assessed first. Screening should extend to casual contacts if the initial screen of close contacts results in a high number of positive cases (see section 3.2 above) or the factors influencing infectiousness described above (see section 3.4) indicate a higher risk of transmission. **The most important factor determining the extent of screening of casual contacts is the sputum smear result of the index case.** Usually at least one round of casual contacts e.g. work or school colleagues will be screened in sputum smear positive cases. In sputum smear negative cases, casual contacts will not usually be screened, but can be when household screening suggests transmission has occurred or the casual contact group is at high risk of TB reactivation (see section 3.4.2 above).

In cases of extra-pulmonary tuberculosis, with no evidence of pulmonary TB (i.e. no respiratory symptoms, normal chest x-ray and negative sputum AFB culture if collected), contact tracing is performed on household or close contacts primarily to identify a possible source case or to identify others who may also have been recently infected from the same (possibly un-identified) source as the index case (this is termed ‘the cohort effect’). Contact tracing is usually not extended beyond the household or close contacts in extra-pulmonary TB cases.

Other considerations in determining the extent of contact tracing include:

- perception and public relations, duty of care to employees;
- Drug resistant TB in the index case – this is not generally considered more or less infectious, but the consequences of transmission are potentially greater, so the imperative to identify infected contacts is greater.
4.0 Procedure for Contact Tracing

The procedure for contact tracing in household contacts and casual contacts of tuberculosis is summarised in the flowcharts in Appendix A and B.

4.1 Review of Index case

The index case should be extensively interviewed to determine lists of contacts requiring screening. In addition, the characteristics of the index case that influence infectiousness (see section 3.4.1 above) should be reviewed. The key factors are:

- Presence of pulmonary TB – symptoms, chest x-ray result (must be done in all cases of TB) and sputum culture result if collected.
- Sputum smear result (if collected).

These two factors must be confirmed, and if in doubt clarified with the treating physician and/or the mycobacterial reference laboratory.

4.2 Stratification of Contact List

Contacts should be stratified into groups according to the "stone in a pond principle (see section 3.2 above) i.e. household contacts and different levels of casual contacts, based on the extent of contact, forming widening circles around the index case. This stratification should be pre-determined to at least 3 levels before contact screening is commenced.

4.3 Contact screening

Once a group of contacts is identified they should undergo the following:

4.3.1 Interview

All contacts should be questioned for symptoms of active TB. Other relevant history should include any previous tuberculin skin test (TST) result, previous TB exposure or treatment, history or scar of BCG vaccination, and co-existing medical conditions.

4.3.2 Chest x-ray

- All household contacts over 10 years old (irrespective of TST).
- All positive TST readings regardless of age.
- All contacts with symptoms suggestive of active TB disease.
- All contacts starting preventive treatment (a chest x-ray within the preceding 3 months is adequate).

4.3.3 Tuberculin skin test (TST)

The preferred test of the WA Tuberculosis Control program for contact tracing is the tuberculin skin test (TST). Interferon Gamma Release Assays (IGRAs), such as Quantiferon Gold (QIFN) can be used only in certain circumstances, including the paediatric setting (see the WA TB control Program policy 4.1 Tuberculosis (active and latent) in children, or when practical delivery of the TST is not convenient e.g. in remote
Indigenous communities or where there are no trained staff to perform the TST. A detailed summary of the pros and cons of the TST and QIFN is given in the WA TB Control Program Policy 3.1 *Diagnosis of latent Tuberculosis Infection* and WA TB Control Program Policy 6.3 *Tuberculosis and Health Care Workers*.

The TST is done on the following:

- ALL household contacts regardless of type of TB in the index case (i.e. pulmonary and extra-pulmonary)
- Casual contacts of pulmonary TB (not extra-pulmonary TB) with extent determined by perceived infectiousness and/or evidence of transmission.

TST interpretation is discussed in section 5.1 below. A TST should not be done if there has been a previous positive result or documented past TB.

The TST is generally done as soon as possible in household contacts, and then repeated after about 8 - 12 weeks in those contacts with a negative result who have had contact with pulmonary TB. This is done to detect late conversion (see section 4.4.2 below).

Casual contacts have limited exposure to the index patient and a low probability of recent infection. A positive TST result from a second skin test would more likely represent boosting (see section 4.4.3 below) in this group (Centers for Disease Control and Prevention (CDC), 2005). For healthy low risk casual contacts a single skin test performed 8-12 weeks after exposure would be sufficient to detect new TB infection and is preferred from an individual, logistic and public health point of view (CDC, 2005; Menzies, 1999). Please see Appendix B for the investigation pathway for casual contacts.

### 4.3.4 Physician review

- All contacts with chest x-ray abnormalities.
- All contacts with symptoms suggesting active TB disease.
- All contacts with a positive TST result or TST conversion (consider preventive treatment irrespective of age).
- All contacts < 5 years old should be seen by a paediatrician irrespective of TST result.
- High risk contacts e.g. HIV positive and other immuno-compromised people, neonates

### 4.3.5 Follow up

- If preventive treatment is initiated, follow up is according to WA TB Control Program policy 3.2 *Treatment of latent tuberculosis infection*.
- Individuals who decline or cannot take preventive treatment are followed up with 6 monthly chest x-rays for 2 years.
- Close contacts of multidrug-resistant TB (MDR TB) should be followed up for at least 5 years especially those with a positive TST or TST conversion.
4.3.6 Contact Tracing Report
When contact tracing is completed the responsible Case Manager completes a report summarizing the extent and results of the contact tracing.

4.4 TST Interpretation

4.4.1 TST Cut-offs

The following table gives a guideline to TST cut-offs. Cut-off values can be changed to improve specificity (increase TST cut-off value) or improve sensitivity (decrease TST cut-off value) of the test, depending on the circumstances of the contact tracing and the populations screened. This is especially the case in large scale screening (e.g. groups of 50 or more), in which case the TST cut-off value is determined by histogram analysis of the cohort’s results. Review and setting of TST cut-offs in these special circumstances should be done in consultation with medical expertise in the TB Control Program.

For general purposes the following cut-offs apply. Any contacts fulfilling the criteria in this table should be referred for medical review.

TST diameters, which should be considered indicative of infection with *M. tuberculosis*.

<table>
<thead>
<tr>
<th>TST ≥ 5mm</th>
<th>TST ≥ 10mm</th>
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<tr>
<td>• HIV positive patients (should be referred for medical assessment regardless of TST reading)</td>
<td>All others</td>
</tr>
<tr>
<td>• Child &lt;5 years old <strong>AND</strong> significant risk of TB infection e.g. contact of smear positive TB or abnormal chest x-ray.</td>
<td></td>
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<tr>
<td>• Significant immune suppression <strong>AND</strong> significant risk of TB infection e.g. contact of TB, abnormal chest x-ray, born or resident for &gt;3 months of a high prevalence TB country.</td>
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<tr>
<td>Examples of immune suppression include:</td>
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<td>o Persons with organ transplants,</td>
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<tr>
<td>o Persons on immunosuppressant therapy equivalent to prednisolone15mg/day for 1 month or more,</td>
<td></td>
</tr>
<tr>
<td>o Anti-TNF alpha treatment, and</td>
<td></td>
</tr>
<tr>
<td>o Dialysis patients</td>
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4.4.2 TST conversion
Tuberculin skin testing to document conversion should be done in household contacts with a negative result on initial screening and at least 8 -12 weeks after the last exposure to infectious TB.
TST conversion is a change in the size of the TST result, either
   i) From a negative reaction to a positive reaction OR
   ii) An increase of more than 5mm in the TST reading (Menzies, 1999).

4.4.3 Boosting

The ability to mount an immune response to mycobacterial antigens may wane with time in some individuals with previous exposure, and such an individual may therefore not react when retested with the TST. However, the TST itself may boost immunological memory and a repeat TST shortly after the initial one may produce a much larger response (a boosted response).

In the context of contact tracing, TB infection is more likely to explain TST conversion than boosting following significant exposure such as in a close contact of infectious TB, particularly if a prior TST was negative (Menzies, 1999). If there is a low risk contact history consider using QuantiFERON assay to exclude a booster effect.

4.4.4 Effect of BCG vaccination

Most people vaccinated with bacille Calmette-Guérin (BCG) will develop a Mantoux or TST reaction within 2 months but this will wane with time (American Thoracic Society, 2000; Department of Health New South Wales, 2009). BCG vaccination given in infancy is unlikely to affect TST interpretation in adults. Where BCG has been given in the preceding 5 years or more than one BCG has been given, then the interpretation of the TST reading needs to be undertaken by a physician with experience in TB management and an IGRA may be considered as an additional test. BCG vaccination is no longer considered when setting TST cut off points. The BCG status of a contact should not have any influence on the decision whether to treat for latent TB or not.

5.0 Special situations

5.1 Aircraft

The risk of infection is related to the infectiousness of the person with TB, the susceptibility of those exposed, the duration of exposure, the proximity to the source case, and the efficiency of cabin ventilation (World Health Organisation (WHO), 2008). The risk of transmission of *M. tuberculosis* on board aircraft is low and limited to persons in close contact with an infectious case for 8 hours or longer.

The decision on whether to initiate contact tracing in this setting in influenced by the following:
i) **Infectiousness of the index case**
- Pulmonary or laryngeal tuberculosis
- Sputum smear positive
- Presence of cavitations on chest x-ray
- Already documented transmission to close contacts
- Symptomatic at time of flight i.e. coughing, haemoptysis

ii) **Duration of exposure**
- If an index case was infectious at the time of travel then contact tracing is considered for those travellers in close contact with, and exposed to, the index case for at least 8 hours duration. This time incorporates the total duration of the flight including ground delays after boarding, flight time and ground delays after landing.

iii) **Context**
- Susceptibility of those exposed
- Proximity of travellers to the source case
- Consequence of transmission (MDR-TB, XDR-TB)

iv) **The time elapsed between the flight and the notification of the case**
Contact tracing is considered when the time between notification of TB and the flight is within 3 months.

If contact tracing is to be performed, information should be obtained on those passengers sitting in the same row as the index case and in the two rows in front of and behind the TB case. Any travelling partners of at risk passengers (or friends of the case) who moved from elsewhere in the aircraft to spend large amounts of flight time near the index case are also considered for contact tracing.

The procedure to identify the passengers that require contact tracing and to conduct the necessary tests is organized by the National Incident Room, who are contacted in turn by the Medical Director of the WA TB Control Program. These procedures, and the legislation supporting it, are also detailed in the Western Australian Department of Health Operational Directive 0143/08 “Guidelines for contact tracing of international airline passengers identified with an infectious disease” (Department of Health Western Australia, 2008). This document contains information regarding the collection of relevant patient history and flight information, contact tracing lists and airline contact information.

### 5.2 Schools

Contact tracing following the notification of TB in a child or teacher attending a school should use the procedures and steps for the assessment of TB risk discussed in earlier sections (3.4 and 3.5). Some issues to address in a school setting are:
5.3 Hospitals and other health settings

When pulmonary TB is diagnosed in a hospital or other health setting, either in a patient that has not been adequately isolated or in a health care worker, contact tracing may be necessary. This is conducted according the same principles as above. Specific details on definitions of significant exposure and procedure are given separately in WA TB Control Program Policy 6.3 Active Surveillance for Tuberculosis in Health Care Workers (Section 4.0 Post Exposure Follow Up). Infection Control Officers are also encouraged to discuss planned contact tracing with the WA TB Control Program before it is initiated.

5.4 Pregnancy

Pregnant women who are contacts of active TB should be screened with a TST and if positive should be referred for clinical assessment. The tuberculin skin test (TST) is the test of choice and tuberculin reactivity is not affected by pregnancy. It is considered both a valid and safe test to use in pregnancy. IGRAs (e.g. QIFN) are also safe to use in pregnancy for screening, but this test has not been validated for pregnant women.

It is recommended that asymptomatic pregnant women with a positive TST or QIFN should have a chest x-ray after 12 weeks gestation to exclude asymptomatic but radiological active pulmonary TB. However, if the patient is not agreeable to this, then it can be deferred until after pregnancy. The management of active and latent tuberculosis in pregnancy is discussed in the WA TB Control Program policy 4.3 Tuberculosis (active and latent) in pregnant women. Management decisions should be made in conjunction with the patient’s preference.

5.5 MDR-TB Index case

The assessment of risk for contacts of multi-drug resistant TB (MDR-TB) cases and screening procedures should be the same for drug susceptible cases. However; treatment of individuals infected with a MDR-TB strain is more difficult. Contacts having been assessed as high risk and those with a high risk of progression to active TB should be referred to a clinician with experience in TB management (National Tuberculosis Advisory Committee, 2007).
Preventive therapy can and should still be considered in high-risk exposure, when drugs to which the index case is sensitive are used. However, there is no evidence on which to base this potentially toxic therapy. The alternative is for contacts of MDR-TB to be monitored by chest x-ray at 6 monthly intervals for at least 5 years. Longer follow up may be justified and is at the discretion of the treating physician.

Importantly, the contact and the contact’s family doctor must be made aware of the seriousness of MDR-TB and the need to assess the contact for active disease if ever that contact presents with symptoms suggestive of tuberculosis disease.

5.6 HIV

High-risk contacts with immuno-suppressive conditions (including HIV infection) may show a negative tuberculin response despite infection. They should be referred to a physician experienced in TB management, irrespective of their TST reaction or the appearance of their chest x-ray.

5.7 Children

All children aged less than 2 years, who are close contacts of smear positive cases of pulmonary TB, are at risk of progression to disease regardless of the TST reading (Marais, Schaaf, & Donald, 2009). Children less than 5 years old, and especially neonates born to mothers with active TB, should be referred to a paediatric physician experienced in the management of TB for consideration of empiric preventive treatment. Please see the WA TB Control Program policy 4.1 Tuberculosis (active and latent) in children for further details regarding TB management in children.

6.0 Other considerations

6.1 Maintaining confidentiality of the index case

The name of the index case should never be disclosed to contacts without the consent of the index case. Health professionals (including public health authorities) have a duty to maintain the confidentiality of all information that comes to them in the course of providing medical treatment and care to patients. Inadvertent disclosure of a patient’s diagnosis of TB to a third party could have adverse consequences for the patient both at home and in the workplace.

Further information regarding confidentiality and divulging patient information to third parties is provided in the Department of Health, Western Australia Operational Directive OP 2050/06 (Department of Health Western Australia, 2006).
6.2 Clients declining tests or treatment

Clients who refuse to be tested for TB should be informed of the signs and symptoms of TB and advised to seek medical attention if they become symptomatic. If a patient refuses preventive therapy, once active TB has been ruled out, then follow up with 6 monthly chest x-ray for 2 years should be offered as an alternative to medication.

6.3 Large scale contact tracing in public places

Any large scale (>5 contacts) TB contact tracing in a public setting (e.g. workplace, education institution, detention centre or gaol, nursing home etc.) should be discussed with the Clinical Nurse Manager or Medical Director of the TB Control Program (or, if on leave, their delegate) on the day that the necessity for large scale contact tracing is first recognised, and before the contact tracing is started.

If a decision to proceed with large scale contact tracing is taken, the executive of NMHS will be informed through the Executive Director of Population and Ambulatory Care, to a degree at the discretion of the Medical Director of the TB Control Program but cognisant of the preferences of the NMHS executive.

6.4 Media attention

Media attention may develop when TB involves schools, childcare centres, hospitals detention facilities or other public settings. This is most likely to arise through contacts speaking to the media. Contact tracing procedures and priorities should not be any different. Attention should be paid to clear and prompt communication with contacts to alleviate anxiety and concerns that may prompt erroneous media reporting. Any media enquiry should be addressed as soon as possible, so to ensure accurate reporting. However, pre-emptive media statements in the setting of contact tracing are not recommended. All media enquiries should be referred to the Medical Director of the WA TB Control Program.
7.0 Works Cited


**Feedback or comments related to this policy should be addressed to the Medical Director, WA TB Control Program Justin.Waring@health.wa.gov.au**
Appendix A: Algorithm for the investigation of HOUSEHOLD or CLOSE contacts (> 5 years old) of TB.

1. Interview ALL household contacts. Chest x-ray > 10 years

2. Active TB suspected:
   - interview or x-ray
   - Medical review
   - Assess for active TB

3. No evidence of active TB:
   - interview or chest x-ray
   - Medical review
   - Offer LTBI treatment*

4. Previous positive TST# (do not repeat)
   - Positive or conversion (see text for definition)
   - Re-interview and repeat TST 8 - 12 weeks after exposure
   - Medical review
   - Assess for active TB

5. No previous TST or previous TST
   - TST for ALL contacts
   - Negative
   - Re-interview and repeat TST 8 - 12 weeks after exposure
   - Medical review
   - Offer LTBI treatment*

6. Negative
   - Discharge

# In high-risk contact, a highly infectious index case or pre-disposing conditions in the contact, consider treatment for latent TB infection.
* For those who decline treatment for latent TB infections, then chest x-ray follow up for 2 years
Appendix B: Algorithm for the investigation of CASUAL contacts of TB

Consider extent of casual contact tracing:
1) Extrapulmonary TB (only) index case - casual contacts usually not tested
2) Infectiousness of index case – sputum smear result
3) Number of positive results amongst household (close) contacts

Casual contacts of pulmonary TB index case interviewed

Active TB suspected

No evidence of active TB

Previous positive TST# (do not repeat TST)

No previous TST or previous TST

TST#

Positive or conversion (see text for definition)

Negative

Chest x-ray and Medical review

Abnormal chest x-ray

Assess for active TB

Normal chest x-ray

Offer LTBI treatment*

Chest x-ray and Medical review

Discharge

# TST performed 8-12 weeks after exposure
*For those who decline treatment for latent TB infection, then follow up for 2 years.