

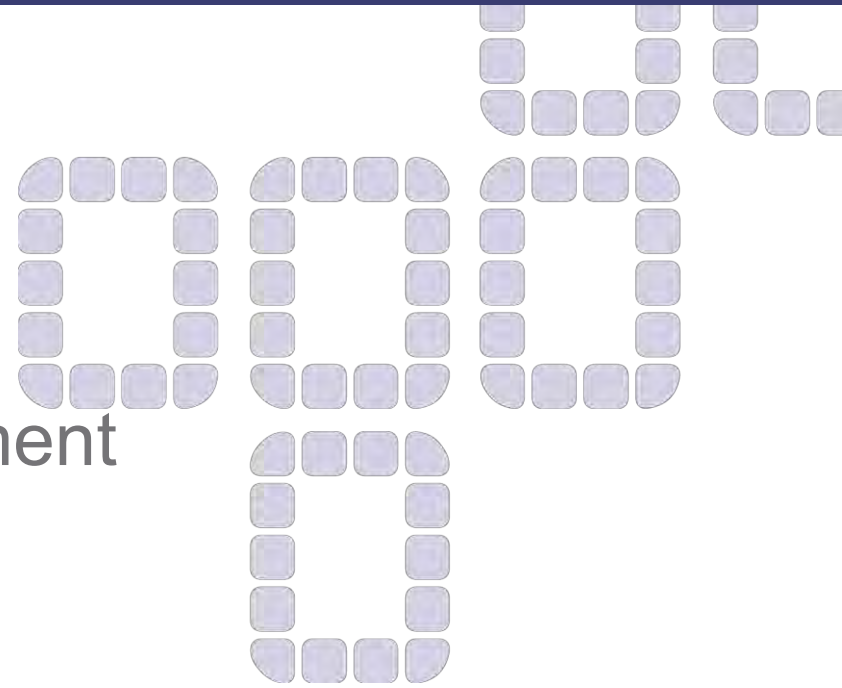
# Tuberculosis: Surveillance and the Health Care Worker

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# Overview

1. Pre-employment assessment
2. Post-exposure follow-up
3. Routine follow up testing
4. Active TB
5. BCG vaccination
6. Responsibilities



# Tuberculosis – Surveillance and the Health Care Worker

- Assessment for TB risk – all students and employees in health related work
- Recommends the minimum precautions that health care facilities should undertake to minimise the risk of TB transmission within the health system



# Tuberculosis: Surveillance and the Health Care Worker

## Pre-employment screening

### *Rationale for screening:*

- Pre-exposure baseline for the HCW
- Diagnose Latent TB Infection of the HCW
- Diagnose Active TB Infection of the HCW

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## Risk Assessment

- History – risk for prior TB Infection
- Predicted risk of future occupational exposure
- Other - previous results, vaccination, medical history, residency status

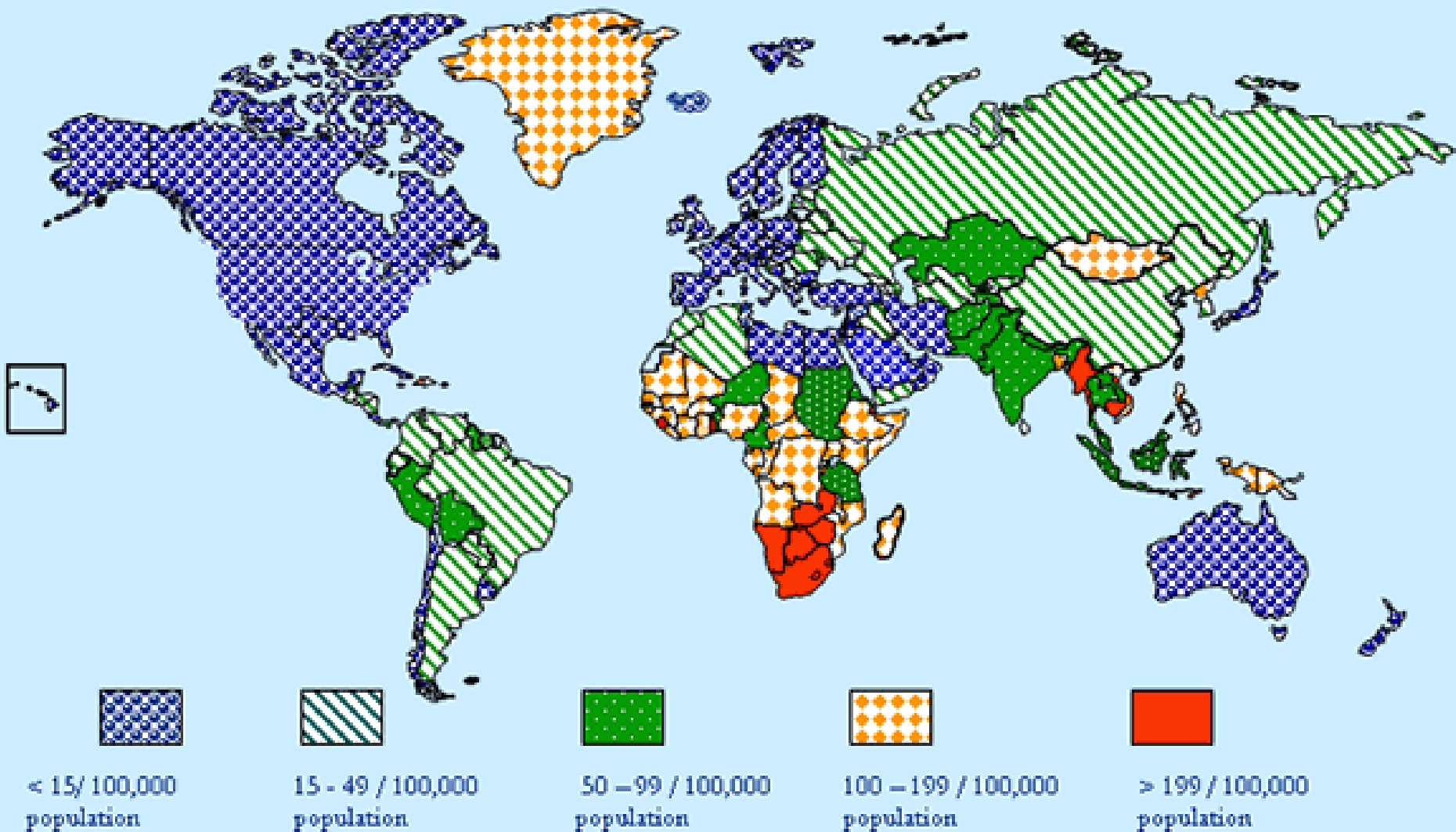


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## Risk Assessment : Predicted risk of future occupational exposure

High Probability	Medium Probability	Low Probability
<p>Staff in the following roles; thereby have regular or higher risk contact with patients that have TB:</p> <ul style="list-style-type: none"><li>-TB Clinics</li><li>-Microbiology labs dealing with TB specimens</li><li>-Bronchoscopy or sputum induction</li><li>-Post mortem examinations</li><li>-Lung function testing</li></ul>	<p>Staff with regular contact with patients that are not in a high probability category</p>	<p>Staff who do not usually have contact with patients:</p> <ul style="list-style-type: none"><li>-Clerical</li><li>-Administrative</li><li>-Non-microbiological laboratory staff</li></ul>

# WHO estimated sputum smear positive pulmonary TB rate per 100 000 (3 year average\*) by country



\* For years 2006, 2007 and 2008

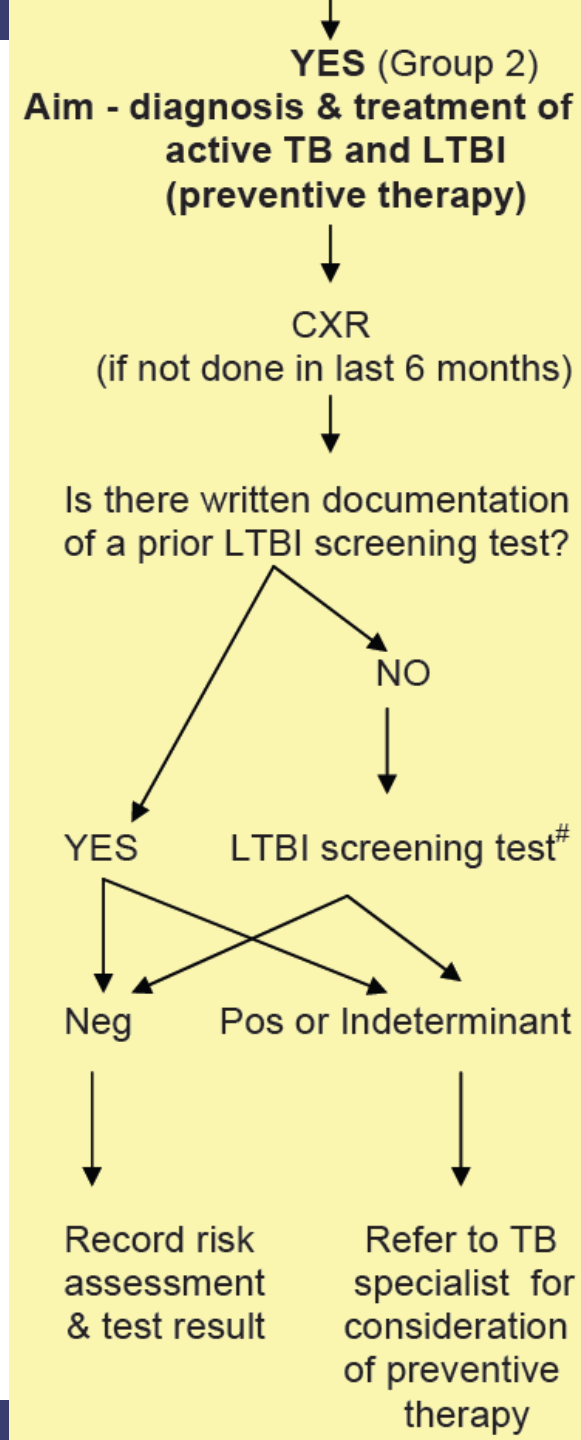
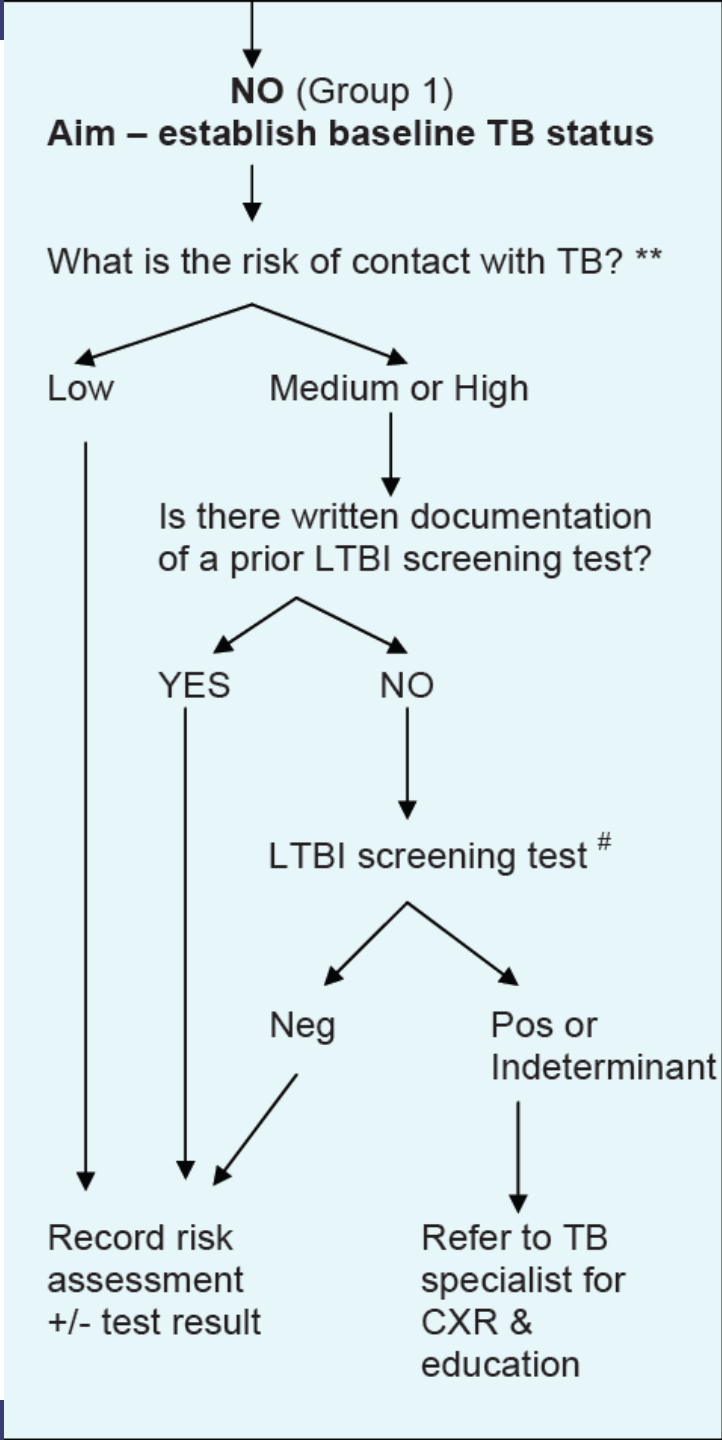
<http://www.phac-aspc.gc.ca/tbpc-latb/itir-eng.php>

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## Screening is indicated for:

- Persons assessed as low risk of prior TB exposure **but** predicted risk for future exposure to TB is high or medium
- Persons assessed as high risk of prior TB exposure regardless of future occupational exposure
- Individuals who have a low risk of prior exposure and a low risk of future exposure **do not need any screening test.**





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## Screening Tests:

### Tuberculin Skin Test (Mantoux)

- Interpretation of results validated by longitudinal data
- Reduced specificity and sensitivity
- Requires two visits – poorer compliance
- Skilled practitioner for the intradermal injection
- Booster effect – false positive

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## Screening Tests:

### QuantiFERON – TB Gold Assay (QIFN)

Convenience and results available on pathology database

Improved specificity

Less reader variability

No booster effect

Lack of evidence and data collection supporting the interpretation of results

Indeterminate and threshold results

Time limitations – needle to lab time 16hours.

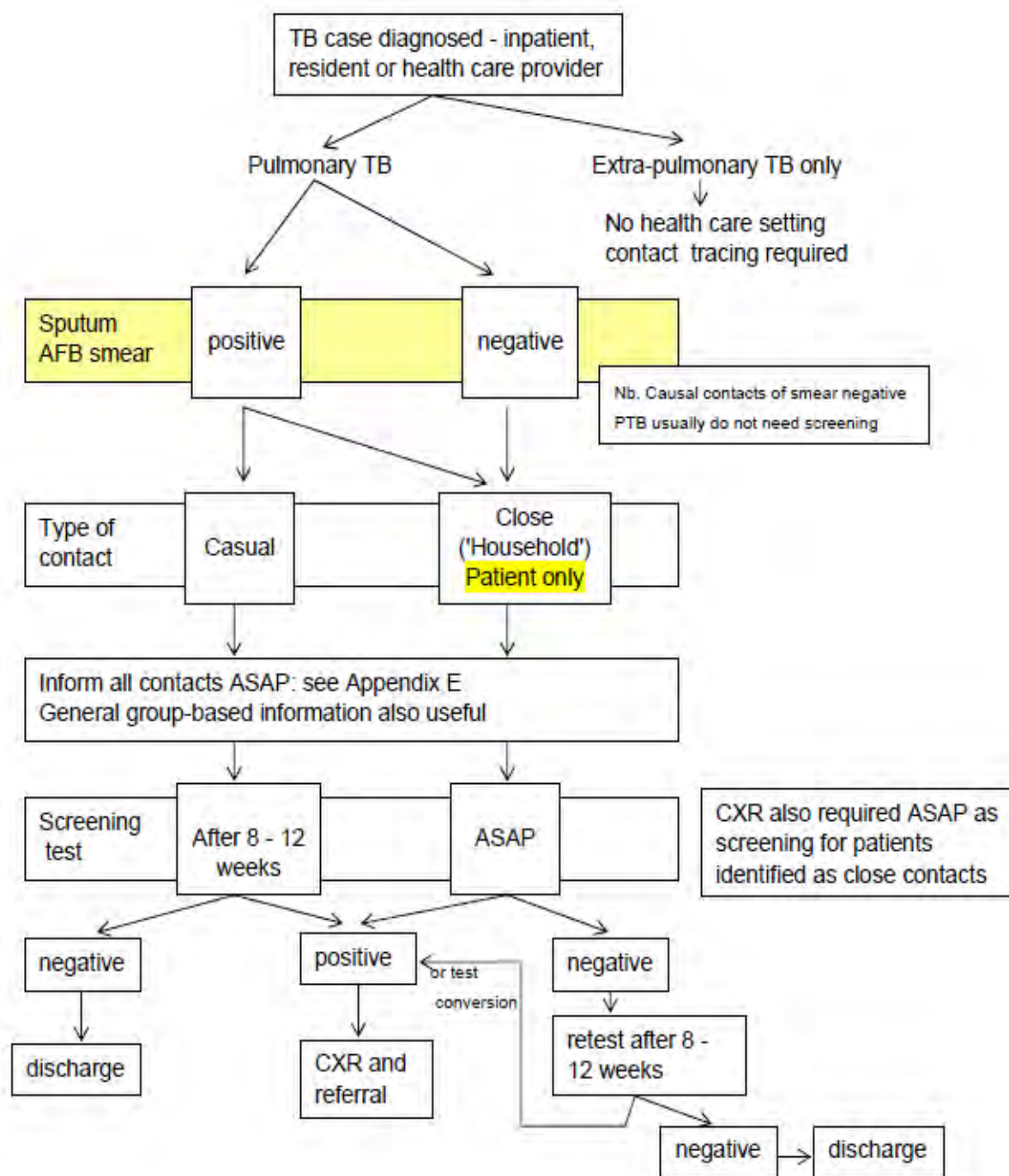


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## Post-exposure follow-up

- Significant exposure is defined as “contact with an inpatient with pulmonary TB and sputum that is smear positive for AFB, who has not been isolated or where a breach of TB isolation precautions has occurred”
- Significant contact includes:
  - Contact on a single or cumulative occasion  $\geq 8$  hrs
  - Contact involving a procedure that confers increased risk, or
  - Contact where physical containment requirements are breached
- Patients that have been isolated, with uninterrupted respiratory droplet infection control throughout their admission, do not routinely require post exposure follow up, even when the sputum is smear positive
- **All post exposure follow up should be discussed with ACC Medical Director or CNM**





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## Routine follow-up testing

- Repeat testing recommended if HCW has significant exposure, and are regularly in a role identified as **high probability** for future occupational exposure.
  - If baseline negative, repeat annually
  - If baseline positive, offer annual CXR

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## Active TB

- Urgent referral to ACC or alternative specialist is required if you suspect or have diagnosed a HCW with Active TB
  - Informed consent from HCW to disclose information to the employer
  - Notification
  - Sick leave
  - Completion of therapy



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## BCG

- BCG is not recommended for HCWs in Western Australia

IC – BCG Vaccination for Tuberculosis Control

IC062/09





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## Health Care Facility responsibilities

- TB Infection Control Policy – staff updates
- Isolation facilities
- Supply appropriate PPE – audit
- Immune-compromised HCWs
- Educate staff about TB appropriate to their work environment
- Staff notification process - refer to Appendix E “Template to inform HCW of occupational exposure”



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## Health care worker responsibilities

- Comply with policy
- Present for assessment at commencement of symptoms



# Tuberculosis: Surveillance and the Health Care Worker

## WA TB Control Program responsibilities

- Provide advice
- Provide training – TST training
- Provide consultative service for HCW review



# Tuberculosis: Surveillance and the Health Care Worker

## Contact details

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# Questions...

