Policy 5.1  BCG Vaccination

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<td>WA Tuberculosis Control Program Policy 5.1</td>
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<tr>
<td>Policy Statement</td>
<td>This document describes the recommended use of BCG vaccine in tuberculosis control.</td>
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<td>Areas Covered</td>
<td>Indications for BCG use. Changes to previous policy.</td>
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2.3 Case management of tuberculosis  
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Document Control

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<tr>
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### Policy 5.1 BCG vaccination

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Policy 5.1  BCG Vaccination

1.0 Introduction

The Bacille Calmette-Guérin (BCG) vaccine is the only vaccine available for tuberculosis (TB). BCG vaccination does not prevent transmission of TB infection to an individual, but may still be an important strategy in TB prevention in those countries with a high burden of TB due to its benefit to infants. In immune competent neonates and infants, BCG reduces the likelihood of TB infection progressing to disease or if disease occurs, lessens the chance of a severe outcome (National Tuberculosis Advisory Committee, 2006).

BCG has been demonstrated to offer protection against Hansen’s Disease. This protective effect varies and has been shown to be significantly higher among contacts of Hansen’s Disease.

2.1 BCG Indications

BCG vaccination should not be offered routinely to Australian residents. However, it is indicated in the following people:

1. Children less than 6 years old who are;
   a) Going to live in another country with a high incidence of tuberculosis (defined as an annual incidence of > 50 per 100 000 population) for more than 6 months or
   b) Will be making repeated visits to a country with a high incidence of tuberculosis that is likely to be for a cumulative period of more than 6 months.


2. Newborn children of migrants who have arrived from countries with a high incidence of tuberculosis (see definition above) in the last 5 years, or newborn children who have household contact with people who have arrived from a high incidence country in the last 5 years.

3. Newborn children of parents with Hansen’s Disease or a family history of Hansen’s Disease.

4. Children less than 6 years old who have not previously been vaccinated with BCG and are household contacts of newly diagnosed Hansen’s Disease.
BCG vaccination can be considered for persons not included in these indications. However, care should be taken to adequately inform all persons of the potential risks and low efficacy of the vaccine, especially in adults.

It is recommended that the decision to give BCG outside of the above indications should be discussed with the Medical Director or Clinical Nurse Manager of the Tuberculosis Control Program.

3.0 BCG Contraindications

BCG vaccination is no longer recommended in newborn Aboriginal and Torres Strait Islander children living north of the Tropic of Capricorn in WA.

BCG vaccination is not recommended for Health Care Workers.

BCG vaccination is not recommended when requested by employers as a pre-requisite of employment and where there is no clinical indication. Examples of employers insisting on BCG vaccination that is outside of WA policy include:

- Overseas employers of health care workers in low incidence countries.
- Employers in other industries (e.g. airline stewards).
- Agencies placing students overseas in low incidence countries (e.g. France).

4.0 General Considerations

- BCG vaccination should only ever be administered by appropriately trained health care providers.
- Informed consent must be obtained from the individual or parent/guardian.
- A risk assessment should be undertaken before giving BCG vaccination.
- Children who have travelled to a high incidence country should delay BCG vaccination until a TST undertaken 8 weeks after arrival back in Australia has a result which is < 5mm induration
- Other than infants less than 6 months of age who have not travelled outside of Australia, and BCG being given for Hansen’s Disease, BCG vaccination should be preceded by a Tuberculin Skin Test (TST), and should not be given if the result is 5mm induration or greater. For individuals older than 15 years of age, a two-step* TST is recommended to establish tuberculin negativity.
- A record of the BCG vaccination (including name, date of birth, date of vaccination, dose, and batch number of vaccine) must be kept, with a copy given to the recipient.
- BCG vaccination pamphlets are available from the Anita Clayton Centre (ACC)
5.0 BCG Vaccine dose and administration

- BCG vaccine is a suspension of a live attenuated strain of M.bovis given by intradermal injection.
- BCG must be reconstituted by adding the entire contents of the supplied diluent to the lyophilised powder and shaking until the powder is completely dissolved.
- Reconstituted vaccine is very unstable and must be stored between 2°C and 8°C and discarded after a maximum of 6 hours.
- The dose of BCG vaccine in infants <12 months of age is 0.05ml.
- The dose of BCG vaccine in children ≥12 months of age is 0.1ml.

6.0 Procedure at the Anita Clayton Centre

In regard to the above considerations, the following is also undertaken at ACC.

- All BCG enquiries are forwarded to one of the Tuberculosis Case Managers who will contact the person enquiring to discuss whether BCG is indicated.
- Education is provided on Tuberculosis, indications for BCG and efficacy of the BCG vaccine prior to an appointment
- Parents are advised via a telephone call that they must bring their child’s immunisation records to the BCG appointment.
- On arrival at ACC parents are given written information on the potential risks and benefits prior to BCG vaccination
- Further information is given verbally to the parent(s) by the HCW and informed consent is documented in the child’s immunisation record and ACC MedTech record

*Two-step TST testing requires repeating a TST 1-3 weeks after an initial negative test where a booster reaction is expected. The booster effect occurs when an individual’s ability to react to tuberculin has waned but the TST boosts the immunological memory of mycobacterial antigens. Retesting will produce a larger (boosted) response and should be considered the true result.*
7.0 Works Cited


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**Endorsing Authority**

Policy or Procedure Sponsor: Medical Director, WA TB Control Program

Last Reviewed: 01 June 2015

Next Review date: 01 June 2018

**References (Standards)**

| EQuIP | EQuIP (5th edition) criteria 1.1.1, 1.1.8, 1.4.1, 1.5.2, 2.4 |
| Legislation | WA Public Health Act (1911) |
| Standards | |
| Related Documents | WA TB Control Program Policy Documents |

*Feedback or comments related to this policy should be addressed to the Medical Director, WA TB Control Program Justin.Waring@health.wa.gov.au*