**BCG IMMUNISATION**

**INDICATIONS**
- Living in areas of the UK where the annual incidence of TB is >40/100,000
- With a parent or grandparent born in a country where the annual incidence of TB is >40/100,000
- Family history of TB in previous 5 yr

**Countries with incidence of TB >40/100,000**

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**Parts of UK with incidence of TB >40/100,000**

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**Tuberculin testing** not necessary <6 yr old unless baby has been in recent contact with tuberculosis or has resided in high-incidence country for >3 months

**CONTRAINDICATIONS**
- Temperature >38°C
- Severe eczema (give at suitable lesion-free site)
- Neonate in household where an active TB case suspected or confirmed
- Immunodeficient or on high-dose corticosteroids
- HIV positive, living in UK
  - if mother HIV positive, give vaccine only after infant has had negative proviral DNA PCR test for HIV after 3 months of age
  - encourage maternal HIV testing but do not withhold BCG if mother declines testing

**SPECIAL CASES**
- No need to delay routine vaccinations
- BCG can be given simultaneously with other vaccines but not in same arm
- no further immunisation should be given in the arm used for BCG immunisation for at least three months due to risk of regional lymphadenitis
Babies born to mothers with infectious tuberculosis (sputum AFB positive)

- Start isoniazid 5 mg/kg daily
- Send placental specimen for TB culture
- if TB isolated, give baby TB treatment for 6 months
- Tuberculin test after 3 months
- if negative, give BCG
- if positive, assess baby for active TB. If assessment negative, continue isoniazid for 6 months
- Babies can breast feed

EQUIPMENT

- Consent form
- Alcohol hand gel
- Injection tray
- 1 mL syringe
- Brown (26 FG 0.45 × 10 mm) or orange needle (3/8 inch 25 FG 0.5 × 10 mm)
- Green needle 21 FG 1 inch
- Cotton wool balls
- Foil dish for cotton wool balls
- Non-woven gauze
- Sharps container
- Bags for clinical waste
- BCG vaccine
- BCG vials are kept in fridge
- consist of 2 vials
- make up brown vial with entire contents of clear vial
- invert vial 1–2 times to mix, do not shake
- available for use for 4 hr after reconstitution
- dose: 0.05 mL (note: vial contains 20 doses)

PROCEDURE

Consent

- Community midwife to record if risk factor antenatally
- Postnatal check for risk factor
- Ensure infant within inclusion group
- Give mother information on vaccine
- Give appropriate language leaflet BCG and your baby; protecting babies against TB, available from www.nidirect.gov.uk/bcg_leaflet-2.pdf, order line: 0300 123 1002 or email: dh@prolog.uk.com
- DH guidelines state written consent not required but follow local practice

Injection

Only staff trained to give intradermal injections to give BCG

- At insertion of deltoid muscle near middle of left upper arm
If skin is clean, no further cleaning is necessary
Stretch skin between thumb and forefinger
Introduce needle bevel upwards about 3 mm into superficial layers of dermis
If considerable resistance not felt, remove needle and reinsert before giving more vaccine

**DOCUMENTATION**
- Complete ‘Unscheduled vaccine form’ or letter with batch number, vaccine name and site of immunisation
- Send to local TB Service/Public Health Department
- Keep a local record
- Enter in Red Book on relevant page

**SEQUELAE**
- **Scar**
  - within 2–6 wk a small papule will appear
  - sometimes, this ulcerates and can ooze
  - site need not be protected from water
  - do not cover with an impervious dressing
  - can take several months to heal
  - occasionally persists as keloid (particularly if given superior to insertion of deltoid)
- **Adenitis:**
  - a minor degree of adenitis can occur in the weeks following BCG
  - local abscess
  - no treatment indicated
- **Rare sequelae:**
  - chronic suppurative lymphadenopathy
  - disseminated disease, if immunocompromised
  - osteitis
  - refer to infectious diseases specialist