BCG in Tower Hamlets

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Public Health Nurse
Coverage levels of BCG for infants under 1 year

<table>
<thead>
<tr>
<th>Month</th>
<th>Coverage Level</th>
</tr>
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<tbody>
<tr>
<td>March 0708</td>
<td>81%</td>
</tr>
<tr>
<td>March 0809</td>
<td>82%</td>
</tr>
<tr>
<td>March 0910</td>
<td>90.9%</td>
</tr>
<tr>
<td>March 1011</td>
<td>95.5%</td>
</tr>
<tr>
<td>March 1112</td>
<td>95.0%</td>
</tr>
<tr>
<td>March 1213</td>
<td>98.7%</td>
</tr>
</tbody>
</table>
BCG should also be offered to:

• previously unvaccinated children aged one to 16 years with a parent or grandparent who was born in a country where the annual incidence of TB is 40/100,000 or greater.

• previously unvaccinated tuberculin-negative individuals under 16 years of age who are contacts of cases of respiratory TB

• previously unvaccinated, tuberculin-negative individuals under 16 years of age who were born in or who have lived for a prolonged period (at least three months) in a country with an annual TB incidence of 40/100,000 or greater.
Countries with TB rates >40/100,000 are considered to be high risk areas for immunisation purposes. See http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1195733837507 for the current comprehensive list on countries in the high risk areas.
Tuberculin skin

A tuberculin skin test is necessary prior to BCG vaccination for:

– all individuals aged six years or over

– infants and children under six years of age with a history of residence or prolonged stay (more than three months) in a country with an annual TB incidence of 40/100,000 or greater

– those who have had close contact with a person with known TB

– those who have a family history of TB within the last five years

BCG can be given to children <6 years of age without a skin test unless they fall into any of the above categories
Mantoux test

• The standard tuberculin skin test for use in the UK is the Mantoux test using 2TU/0.1ml tuberculin PPD.

• Tuberculin PPD is manufactured by Statens Serum Institut (SSI).

• Tuberculin PPD from SSI is not licensed medicine in the UK (although it has a marketing authorisation for use in other European countries).
Administration of the Mantoux test

- Intradermal injection (sometimes referred to as intracutaneous administration) normally on the flexor surface of the left forearm at the junction of the upper third with the lower two-thirds
Reading Mantoux test

• The results should be read 48 to 72 hours after the test is taken, but a valid reading can usually be obtained up to 96 hours later.

• The transverse diameter of the area of induration at the injection site is measured with a ruler; the area of erythema is irrelevant.

• The size of the induration should be recorded in millimetres and NOT just as a negative or positive result.
## Interpretation of the Mantoux test

<table>
<thead>
<tr>
<th>Diameter of induration</th>
<th>Positivity</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6mm</td>
<td>Negative - no significant hypersensitivity to tuberculin protein</td>
<td>Previously unvaccinated individuals may be given BCG provided there are no contraindications</td>
</tr>
<tr>
<td>6mm to 15mm</td>
<td>Positive – hypersensitive to tuberculin protein</td>
<td>Should not be given BCG* - May be due to previous TB infection or BCG or exposure to non-tuberculous mycobacteria</td>
</tr>
<tr>
<td>&gt;15mm</td>
<td>Strongly positive - strongly hypersensitive to tuberculin protein</td>
<td>Suggests tuberculosis infection or disease. Should be referred for further investigation and supervision (which may include preventive chemotherapy)</td>
</tr>
</tbody>
</table>

* No further action if test was performed as part of an immunisation programme. Referral to chest clinic may be indicated if test was performed to screen for TB infection and the person has not been previously vaccinated with BCG.
Immunocompromised individuals

BCG is contraindicated in those immunocompromised by virtue of disease or treatment:

- patients receiving corticosteroid or other immunosuppressive treatment, including general radiation. Inhaled steroids are not a contraindication

- malignant condition such as lymphoma, leukaemia, Hodgkin’s disease or other tumour of the reticuloendothelial system

- symptomatic HIV-positive individuals

- Other known or suspected HIV positive in low risk countries such as the UK, regardless of clinical status. Where vaccination is indicated, for example infants born to HIV-positive mothers, this can be administered after two appropriately timed negative postnatal PCR tests for HIV infection
Other contraindications

– Previous BCG vaccination

– Past history of TB

– Induration of 6mm or more following Mantoux (SSI) tuberculin skin testing

– confirmed anaphylactic reaction to a component of the vaccine

– neonates in a household where an active TB case is suspected or confirmed (should be investigated for TB infection first)

– As a precaution not recommended during pregnancy, unless benefits outweigh risks (no recorded reports of the BCG vaccine affecting pregnancy)