Fact sheet

BCG Tuberculosis Vaccination

1. What is the BCG vaccine?
The Bacille Calmette-Guerin (BCG) vaccine was named after the two doctors who developed it in 1921. The BCG is a live vaccine with weakened germs which help protect against tuberculosis (TB) disease. The amount of protection from the vaccine differs from person to person. The vaccine is about 50% effective in preventing TB disease particularly in children 5 years of age and under where it protects against life threatening disease. The benefit to adolescents and adults is less clear. It takes 6 to 12 weeks for the immune response to occur.

2. Who should be vaccinated?
Given the low incidence of TB in Australia BCG vaccination is not used for the whole community. BCG is recommended for children 5 years of age and under who:
- Live for 3 months or more in countries where TB is common
- Live in Indigenous communities where TB is common
- Are born to parents with leprosy or a family history of leprosy

BCG is no longer routinely recommended for health workers but may be considered for those who are at high risk of exposure to multi-drug resistant TB cases. A second BCG vaccination is not recommended.

3. When should BCG vaccine not be given?
- If you have TB disease now, or if you have had TB disease in the past
- If you have ever had an abnormal tuberculin skin test (TST) reaction
- If you have HIV infection or belong to a HIV risk group
- If you have ever had a serious illness such as leukaemia, kidney disease, cancer, SLE
- If you take anti-cancer or steroid drugs such as cortisone or immunosuppressive drugs
- If you are pregnant

4. When should BCG vaccination be delayed?
- If you have had another 'live vaccine' within 4 weeks (Measles, Mumps, Rubella (MMR), yellow fever, Varicella (chicken pox), or shingles)
- If you have a fever (>38°C)
- If you suffer from a widespread skin problem such as eczema, dermatitis, psoriasis

5. How is the BCG vaccine given?
The solution is injected between the layers of skin (usually on the left upper arm).

6. What happens next?
- Immediately after the injection a white lump is seen for a few minutes
- A red spot usually appears within 3 weeks and develops into a sore, often with pus
- A scab forms over the sore which may take several weeks to heal. A small scar usually remains but may be larger if you tend to scar abnormally
- Sometimes an accelerated reaction can begin within 24-48 hours with induration followed by pustule formation in 5-7 days and healing within 10-15 days

7. What are the side effects?
The most common side effects are pain, redness and swelling around the injection site, swelling of the glands in the armpit and/or neck. These usually get better without treatment. Rare side effects are an abscess at the site of injection, bone infection, severe allergic reactions, serious infection that spreads to other parts of the body (estimated risk 3 per million) or death (estimated risk less than 1 in 10 million). Serious infection or death may occur in people with low immunity including those who are HIV positive, malnourished or have a serious medical condition.

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