

Public health units around New Zealand have been able to offer bacillus Calmette-Guérin (BCG) vaccination since the end of July 2018. This resource has been prepared to assist vaccinators delivering Immunisation Schedule vaccines in primary care.

The BCG vaccine is a live attenuated bacterial vaccine. In New Zealand, the vaccine is available for infants and children aged under 5 years who have the highest risk of exposure to a person who is infectious with tuberculosis (TB), primarily to protect them from miliary or meningeal TB. Please familiarise yourself with the information in the *Tuberculosis* chapter in the online [Immunisation Handbook 2017 2nd Edition](#) (Handbook).

## BCG vaccination eligibility

Infants and children aged under 5 years are eligible for a BCG vaccination if:

- » they will be living in a house or family/whānau with a person with either current TB or a history of TB
- » they have one or both parents or household members or carers who, within the last 5 years, lived for a period of 6 months or longer in countries with a TB rate  $\geq 40$  per 100,000\*
- » during their first 5 years will be living for 3 months or longer in a country with a TB rate  $\geq 40$  per 100,000\*

\*Refer to Appendix 8 in the Handbook.

## Catch-up BCG vaccination

The Ministry of Health (Ministry) recommends that children aged under 1 year be prioritised for catch-up BCG vaccination. The Ministry does not recommend a BCG catch-up programme for eligible older children. However, parents may request catch-up vaccination for these children. BCG vaccination is not available for adults or children aged 5 years or older in New Zealand.

BCG clinics will arrange a tuberculin skin test (TST/Mantoux) for children aged 6 months or older prior to BCG vaccination.

Infants aged under 6 months do not need a TST/Mantoux unless they have a history of contact with a known or possible case of TB; refer to section 20.5.1 in the Handbook.

## Minimum intervals between live and non-live vaccine administration

- » No minimum interval is required between administration of a live oral vaccine (Rotarix®) and a live injected vaccine (BCG).
- » Two or more live injected vaccines (Priorix®, Varilrix® and BCG) can be administered on the same day. However, a minimum interval of 4 weeks is required when two or more live injected vaccines are not administered on the same day.
- » Inactivated and subunit vaccines, e.g. Infanrix®-hexa, Synflorix® and Hiberix®, can be administered at any time before or after a BCG vaccination.

Refer to section 2.1.5 in the Handbook for more information.

## Rotavirus vaccine and BCG administration

No minimum interval is required between administration of Rotarix® and a BCG vaccine. This is because is Rotarix® is a live oral vaccine and the BCG a live injected vaccine.

## MMR and/or varicella vaccine and BCG administration

Priorix®, Varilrix® and the BCG vaccine are live injected vaccines and could be administered on the same day if the parent can coordinate the two appointments required. However, when Priorix®, Varilrix® and/or a BCG vaccine are not administered on the same day, a minimum interval of 4 weeks is required before administration of a subsequent live injected vaccine.

## References

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- Kroger A, Duchin J, Vazquez M. General Best Practice Guidelines for Immunization. Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP) [Internet]Atlanta: Centers for Disease Control and Prevention; 2017 [May 2018; cited 2018 August 2]. Available from: [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/downloads/general-recs.pdf](http://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/downloads/general-recs.pdf).
- Ministry of Health. Immunisation handbook 2017 2nd Edition Wellington: Ministry of Health; 2017 [updated March 2018]. Available from: <https://www.health.govt.nz/publication/immunisation-handbook-2017>.
- Ministry of Health. Resumption of BCG vaccination following vaccine shortage. [Internet]. Wellington: Ministry of Health; 2018. Available from: <https://www.health.govt.nz/our-work/diseases-and-conditions/tuberculosis/resumption-bcg-vaccination-following-vaccine-shortage>.

## MMR vaccine and tuberculin skin test (TST/Mantoux) administration

- » MMR vaccination before a TST: Delay the TST for at least 4 weeks after the Priorix® (MMR) vaccination.
- » MMR vaccination after a TST: Priorix® (MMR) can be administered any time after a TST, no minimum interval is required.

Delay of a TST after MMR vaccination is recommended because wild measles virus is known to cause immunosuppression and there is a small risk that the measles vaccine virus could cause a degree of immunosuppression and reduce the TST reaction.

## No vaccines in left arm for 3 months after BCG vaccination

DO NOT administer vaccines in a child's left arm for 3 months after BCG vaccination to reduce the risk of local lymphadenitis. Although all BCG vaccinations in New Zealand are administered by intradermal injection over the deltoid muscle of the left upper arm, this advice will primarily affect children aged 12–59 months who present for Schedule vaccines within 3 months of receiving a BCG vaccination, e.g. for Hib, PCV10, varicella and MMR at 15 months of age.

**A NIR status query pre-vaccination is essential** to avoid administering live injected MMR and/or varicella vaccines for 4 weeks after the BCG vaccination AND to avoid use of a child's left arm to administer any vaccines for 3 months after the BCG vaccination.

**For all children aged 6–59 months**, please add an alert to the practice management system (PMS) that includes the date of the child's BCG vaccination and advice not to administer live injected MMR and/or varicella vaccines for 4 weeks after the BCG vaccination AND not to use the child's left arm to administer any vaccines for 3 months after the BCG vaccination. **Extra pre-vaccination check for children aged 9–59 months** Check the child's inbox on the PMS for a letter from the BCG clinic and ask the parent if the child has received a BCG vaccination:

- » MMR and/or varicella vaccines MUST be administered a minimum of 4 weeks after the BCG vaccination.
- » DO NOT use the child's left arm to administer any vaccines for a minimum of 3 months after the BCG vaccination.

## Who can give BCG vaccines?

BCG vaccine can only be administered by a BCG endorsed vaccinator, refer to Appendix 4 section 4.1.3 in the Handbook for more information. The Ministry approved *Tuberculosis, Mantoux skin testing and BCG vaccination course* is an 8 hour online course available from the Immunisation Advisory Centre, on the [Health Professionals/Education and training webpage](#).