

MMR dose zero pre-vaccination screening tool

Checklist for vaccinator	
Infant is aged 4 to ≤11 months	A dose of MMR (called MMR0 [zero]) may be recommended for infants aged 4 to ≤11 months during measles outbreaks for pre-exposure prophylaxis. Any recommendations in this regard will be made by the local medical officer of health and Health NZ, based on local epidemiology. MMR0 may be offered prior to international travel to a measles endemic country. A prescription is required.
Interaction with other vaccines	The MMR vaccine can be given at the same time, or at any interval with inactivated vaccines, in separate sites. For live vaccines: if not given on the same day, allow at least 4 weeks between live injectable vaccines e.g. BCG or varicella vaccines (excludes rotavirus). Note: MMR given IM into vastus lateralis in infants ≤11 months. For infants due a tuberculin skin test (TST/Mantoux) this should be done on the same day as MMR vaccination or be postponed for 4-6 weeks after vaccination. Measles vaccine may temporarily suppress the TST reactivity.

If the above have been met and the infant meets the criteria for vaccination, please proceed to asking the caregivers the following questions specifically related to MMR vaccination for infants under the age of 12 months.

Screening questions for caregiver	Rationale
Is your infant well today?	Vaccination should be deferred for those acutely unwell or with a fever ≥38.5°C. If parent reports infant is well, there is no need to check the temperature.
Allergies: Has your infant ever had a serious allergic reaction to anything?	MMR vaccine is contraindicated for individuals who have proven anaphylaxis to a previous dose or a vaccine component, e.g neomycin.
Specialty care: Is your infant (or their mother) seeing a specialist doctor or taking any medications?	This question may help you find answers to the following screening questions that might otherwise be misunderstood.
Immunosuppressive treatment: Is your infant currently receiving corticosteroids or any other immunosuppressive treatments? Was/is the mother of the child given any immunosuppressive treatment while pregnant or breastfeeding?	MMR vaccination may be contraindicated in those on systemic corticosteroids or immunosuppressive treatments, including infants exposed to these during pregnancy or breastfeeding. Infants aged under 12 months born to mothers who received immunomodulatory biologic agents during pregnancy or breastfeeding should not be vaccinated with MMR or VV unless specialist consultation has been sought.
Immune-compromising conditions: Was your infant's Newborn Heel Prick (blood spot screen/ Guthrie) test completed? Was any follow-up required after this? Does your infant have a known or suspected condition that can affect their immune system? Does your child have a primary or secondary immunodeficiency? Does your family/whānau have a history of illness that weaken the immune system?	In an infant whose immune status is in question, MMR vaccination should be postponed until the immune status has been evaluated.

IFNAR deficiencies: Have any older siblings or relatives had a severe illness following MMR?	These are extremely rare immune disorders that can result in a defective response to certain viruses, including measles. IFNAR deficiencies seen in certain Pacific populations can increase the risk of severe reaction to some live viral vaccines, such as MMR. If an older sibling or relative had a severe illness following MMR or had severe measles this should be discussed with immunisation specialists.
Blood products: Has the infant had an injection of immunoglobulin or a blood transfusion within the last year?	Check which product the person received and the interval since administration. If delay is recommended, discuss with specialist. Refer to appendix 6 of the Immunisation Handbook for more information.
HIV infection: Is your infant known or suspected to be infected with HIV (is the mother living with HIV)?	Infants whose mothers are living with HIV infection must not be given MMR (or any other live vaccine) until the baby has been shown to be HIV-negative, this would usually be confirmed by aged 3 months. Discuss with the child's paediatrician prior to vaccinating if unsure.
Does your infant have current Idiopathic thrombocytopenic purpura (ITP)?	Timing of MMR vaccine should be discussed with their specialist.
Contact with measles (to be asked during local or national outbreak): Is there anyone in the household who may have measles?	For post-exposure prophylaxis, ensure that correct follow-up is arranged e.g. if HNIG required see the measles chapter in the Communicable Disease Control Manual for guidance or contact local medical officer of health.
Infant born overseas: Was your infant born overseas?	Some immigrant children may have received a measles-containing vaccine when aged under 12 months. Usually given from age 9 months, maybe measles & rubella (MR), or measles (M) only.

Potential screening outcomes:

- **There are no contraindications to vaccination:** Follow your usual informed consent process, ensure that you fully document this in the patient notes.
- **Vaccination is deferred:** Advise the patient of the outcome and why the vaccination has been deferred. Let them know when to come back for vaccination and make an appointment if possible. If the infant is a contact of a case, please refer to appropriate specialist.
- **Vaccination is contraindicated:** Advise the patient of the outcome and why they cannot receive the vaccine. If the infant is a contact of a case, please refer to appropriate specialist.
- **Specialist opinion is required:** Let the patient know, discuss how the advice from the specialist will be sought and approximately when you will tell them whether they can have the vaccination or not. If the infant is a contact of a case, please refer to appropriate specialist.

If the infant is a contact of a measles case, they should be referred to an appropriate specialist for urgent consideration of vaccine and/or NHIG.

Reminder: Infants receiving MMR 0, will require a further 2 doses over the age of 12 months

References:

[tewhaturora.govt.nz/for-health-professionals/clinical-guidance/immunisation-handbook/12-measles/](https://www.tewhaturora.govt.nz/for-health-professionals/clinical-guidance/immunisation-handbook/12-measles/)
[tewhaturora.govt.nz/for-health-professionals/clinical-guidance/communicable-disease-control-manual/measles/](https://www.tewhaturora.govt.nz/for-health-professionals/clinical-guidance/communicable-disease-control-manual/measles/)

Call 0800 IMMUNE (0800 466 863) for clinical advice