

Information for managing contacts of measles cases:

Contact tracing

Definition:

Since measles is transmitted by airborne means, anyone who has shared the same air for any length of time with a case while the latter was infectious can be defined as a contact.

Contacts include (in priority order for prophylaxis):

- all household members
- all people sleeping overnight in the same room as the case (eg. in a hospital, boarding school or military barracks)
- **people who stayed in a waiting area at the same time as the case (eg. patients in a health care facility's waiting room and any people accompanying these patients) and people who waited in the waiting area or who were seen in the same consultation room up to 30 minutes after the case left. Staff in these health care facilities must also be considered as contacts, and are a very high priority.**
- all children and adults at family day care, child care, preschool, school or other educational setting who share a classroom with the case
- all work colleagues of the case who share the same work area
- others who attend or work in the same educational institution as the case, and may have spent time in the vicinity of the case, but do not share a classroom (eg. a high school, college, lecture theatre block)
- passengers on an aeroplane

A person considered **susceptible** to measles is someone who cannot provide evidence of immunity to measles. A person can be considered to have evidence of immunity to measles if they meet one of the following criteria:

- persons born during or since 1966 who have documented evidence of receiving two doses of a measles-containing vaccine when both doses have been given at ≥ 12 months of age and at least four weeks apart (unless serological evidence indicates otherwise)
- persons born before 1966 (unless serological evidence indicates otherwise)
- documented evidence of immunity
- documented laboratory definitive evidence of prior measles.

Prophylaxis:

Susceptible contacts should be provided with either MMR vaccine or NHIG according to:

- time elapsed since exposure to an infectious case. Where there has been ongoing exposure (such as with household contacts) the time since exposure should be calculated from the first contact during the infectious period.
- age
- previous measles vaccination history and
- For infants from birth to 5 months, their mother's history of measles infection or MMR vaccination before current pregnancy

- current pregnancy or immunosuppression.

NB: NHIG should usually be reserved for contacts at higher risk of disease or severity of disease such as:

- **Susceptible household contacts**
- **Immunocompromised individuals**
- **Pregnant women who cannot provide evidence of either immunisation or immunity**
- **Infants too young to be vaccinated and who are not likely to be protected by maternal antibodies (i.e. infants born to susceptible mothers; and those aged 6–11 months if not timely for MMR).**

See <http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-measles.htm> for further information on NHIG.

Tables 2 and 3 (Post exposure guidelines for exposures that have occurred within 144 hours (6 days) are provided for this purpose. NOTE: MMR and varicella vaccines should be delayed for five months after administration of NHIG.

Catch up doses of MMR vaccine are funded by Queensland Health for those contacts who have not yet received 2 doses of MMR vaccine

Restriction:

Children who are enrolled in high school, primary school, preschool or child care should be excluded as follows:

- Susceptible contacts should be excluded until 14 days after the onset of the rash in the last case occurring at the facility. However they may return if given MMR within 72 hours of first exposure to an infectious case or if they receive NHIG within 144 hours of exposure.
- Immunosuppressed children or staff should be excluded (regardless of their measles vaccination status) until 14 days after the onset of the rash in the last case occurring at the facility. Exclusion is advised for their own safety even if they receive NHIG.

Counselling:

Advise susceptible contacts (or parents/guardians) of the risk of infection and counsel them to watch for signs or symptoms beginning seven and up to 18 days after the first contact with an infectious case. They should avoid contact with other susceptible people and immunosuppressed people during this period. If symptoms develop, they should also be advised to call ahead before visiting doctors' rooms, hospital EDs or pathology services so as to avoid mixing with other people, and to telephone the local PHU promptly. They should not go to local pharmacies to purchase medications for their symptoms.

Health Care facilities: All people who used the same waiting room area or consultation room up to 30 minutes following the case's departure require immediate assessment and prophylaxis if susceptible. Staff in these health care facilities must also be considered as contacts, and their susceptibility to measles must be assessed promptly.

Table 2: Post-exposure guidelines – within 3 days (72 hours) of first exposure to infectious case

Age	MMR vaccination history		
	0 doses MMR or unknown	1 dose MMR	2 doses MMR
birth to 5 months	Normal Human Immunoglobulin 0.2 mL/kg only if mother has had <2 doses MMR and no history of past measles infection or negative maternal IgG (otherwise, no NHIG)	Not applicable	Not applicable
6 to 11 months	MMR now, then repeat dose at 12 months of age or 4 weeks later (whichever is later) and the usual dose at 18 months of age.	Not applicable	Not applicable
12 months to <18 months	MMR	MMR or MMRV (at least 4 weeks after initial dose of MMR)	Nil necessary
≥18 months and born after 1965	MMR if not pregnant. If pregnant: consult with obstetrician or GP; check IgG if time; offer NHIG (0.2 mL/kg to a maximum of 15 mL)	MMR or MMRV (see page 12, based on age) if not pregnant. If pregnant: consult with obstetrician or GP; check IgG if time; offer NHIG (0.2 mL/kg to a maximum of 15 mL)	Nil necessary
Immunocompromised* (any age)	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL

*See discussion about immunocompromised contacts in section 11. Consult with treating clinician about interpretation of IgG results and use of NHIG.

Table 2 Measles National guidelines for public health units
www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-measles.htm

Table 3: Post-exposure guidelines – from 3 days (73 hours) to within 6 days (144 hours) of first exposure to infectious case

Age	MMR vaccination history		
	0 doses MMR or unknown	1 dose MMR	2 doses MMR
birth to 5 months	Normal Human Immunoglobulin 0.2 mL/kg only if mother has had <2 doses MMR and no history of past measles infection or negative maternal IgG (otherwise, no NHIG)	Not applicable	Not applicable
6 to 11 months	Normal Human Immunoglobulin 0.2 mL/kg	Not applicable	Not applicable
12 months to <18 months	Normal Human Immunoglobulin 0.2 mL/kg	Nil necessary	Nil necessary
≥18 months and born after 1965	Normal Human Immunoglobulin 0.2 mL/kg to max of 15 mL Prioritise for immunocompromised people, pregnant women, healthcare workers and close personal (e.g. household) contacts. Wider use is not routinely recommended, but should be judged in relation to the relative risks and benefits.	Nil necessary – consider MMR or MMRV (depending on age) if not pregnant If pregnant, check IgG if time allows and offer NHIG if IgG is not detected (0.2 mL/kg to a maximum of 15 mL) and inform obstetrician or GP	Nil necessary
Immunocompromised* (any age)	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL	Normal Human Immunoglobulin 0.5 mL/kg to max of 15 mL

*See discussion about immunocompromised contacts in section 11. Consult with treating clinician about interpretation of IgG results and use of NHIG.

Table 3 Measles National guidelines for public health units
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