

This document contains modified measles protocols for use by health professionals from August 2009 onwards in response to the current measles outbreak

The only way to prevent measles is vaccination

Key Messages

- Measles is a serious disease
- It is currently widespread in the Christchurch community and it appears to be spreading to the rest of NZ
- Fax notification of any suspect cases to Community & Public Health - using the attached customised notification form will save you time
- A blood sample for serology should be taken from all suspect cases. Either nasopharyngeal swab *and* throat swab or first morning urine sample for PCR should also be taken if within three days of the appearance of the rash.
- The only way of preventing measles is immunisation. High enough rates of immunisation will stop transmission
- All children over 12 months should be offered a first MMR **now** followed by a second dose not less than one month later.
- All children who have not received a second MMR should be offered this as soon as possible (no sooner than 1 month following the first MMR).
- Infants aged 6-12 months in an outbreak situation may be susceptible to measles and can be offered an extra, earlier MMR vaccination followed by 2 further doses after 12 months
- All adults born after 1969 who do not have a history of measles or documented measles vaccination need a single MMR as soon as possible, followed by a second dose one month later (people older than this are likely to have pre-existing immunity)
- These are all claimable and details will be circulated in the next day about how to modify your PMS to do this.
- If you require extra nursing staff to carry out vaccination clinics at your practice, please call the manager of the Canterbury public health nurses, Alison Clarke on 027 221 9978.

Measles

Measles is an acute viral illness. Early symptoms include fever, runny nose, cough, loss of appetite, and conjunctivitis. Characteristic white Koplik's spots may occur in the oral mucosa. After 3 to 5 days a rash appears at the hairline, moves to the face and upper neck, then proceeds down the body and usually lasts 4-6 days. Measles is often a serious disease, with up to 30% of reported cases experiencing one or more complications.

One in one thousand (0.1%) of measles patients die. Complications include: Ear infections (7 %) and pneumonia (6%), Acute encephalitis develops in 1 in 1000 cases, of whom 15% die more than one third are left with permanent neurological damage. Approximately 1 in 100,000 cases will develop subacute sclerosing panencephalitis (SSPE) which is always fatal. Measles during pregnancy increases the risk of premature labour, miscarriage, and low-birth-weight infants, although birth defects have not been linked to measles exposure. Measles can be especially severe in persons with compromised immune systems and immunisation for household contacts is important to protect them.

Each case of measles is likely to infect a further 12-18 non immune persons. The only method of prevention is vaccination. In order to prevent transmission of measles around 95% of the community must be immune.

Current situation

In NZ measles cases have increased during the first half of 2009. There have been several outbreaks across the country, the largest to date in Canterbury with nearly 100 cases, 10 of whom have been hospitalised. Current vaccine coverage varies depending on region and age group. Current NIR data indicates that around 84% of children in Canterbury receive at least one dose of MMR vaccine by their 5th birthday. The proportion of these children receiving the vaccine on time is much lower. In order to interrupt transmission and minimise the number of people infected there are some changes to the timing of MMR vaccine delivery.

Changes to timing of MMR administration

Bring the 2 doses of MMR vaccine forward from 15 months then 4 years to 12 months then 13 months.

- Recall all children over 12 months who have not received an MMR vaccination as soon as possible and revaccinate 1 month later.
- Recall all children who have not received a second MMR as soon as possible (no sooner than 1 month following the first MMR).
- Recall all patients with questionable measles vaccine history: There are no adverse effects from receiving extra doses. Unvaccinated adults born from 1969 should also receive two MMR vaccines 1 month apart.
- Infants aged 6-12 months can be offered MMR now, but will still require 2 further doses once they reach 12 months of age (3 doses in total). The Ministry of Health and the Immunisation Advisory Centre recommend that children in this age group receive MMR given the current rapid spread of measles in New Zealand.
- High-risk contacts (e.g. immuno-compromised people, including pregnant women) can receive immunoglobulin which should be discussed on a case-by-case basis with your local paediatrician or infectious diseases physician.

Other issues

- The NIR will be adapted to cope with these changes
- The other 15 month vaccinations (Hib and Pneumococcal) can be given at the same time as the first MMR i.e from 12 months of age.
- If giving the 4 year MMR early the child will need to be recalled at 4 years for the DTaP-IPV vaccination.
- Egg allergy is not a contraindication to receiving MMR

Vaccinating pregnant women

- Live vaccines (such as MMR) are contraindicated in pregnant women
- There is no evidence that vaccine virus is transmissible to fetus, it is theoretical only.
- The Ministry of Health and IMAC recommend ensuring those in contact with pregnant women are immunised.

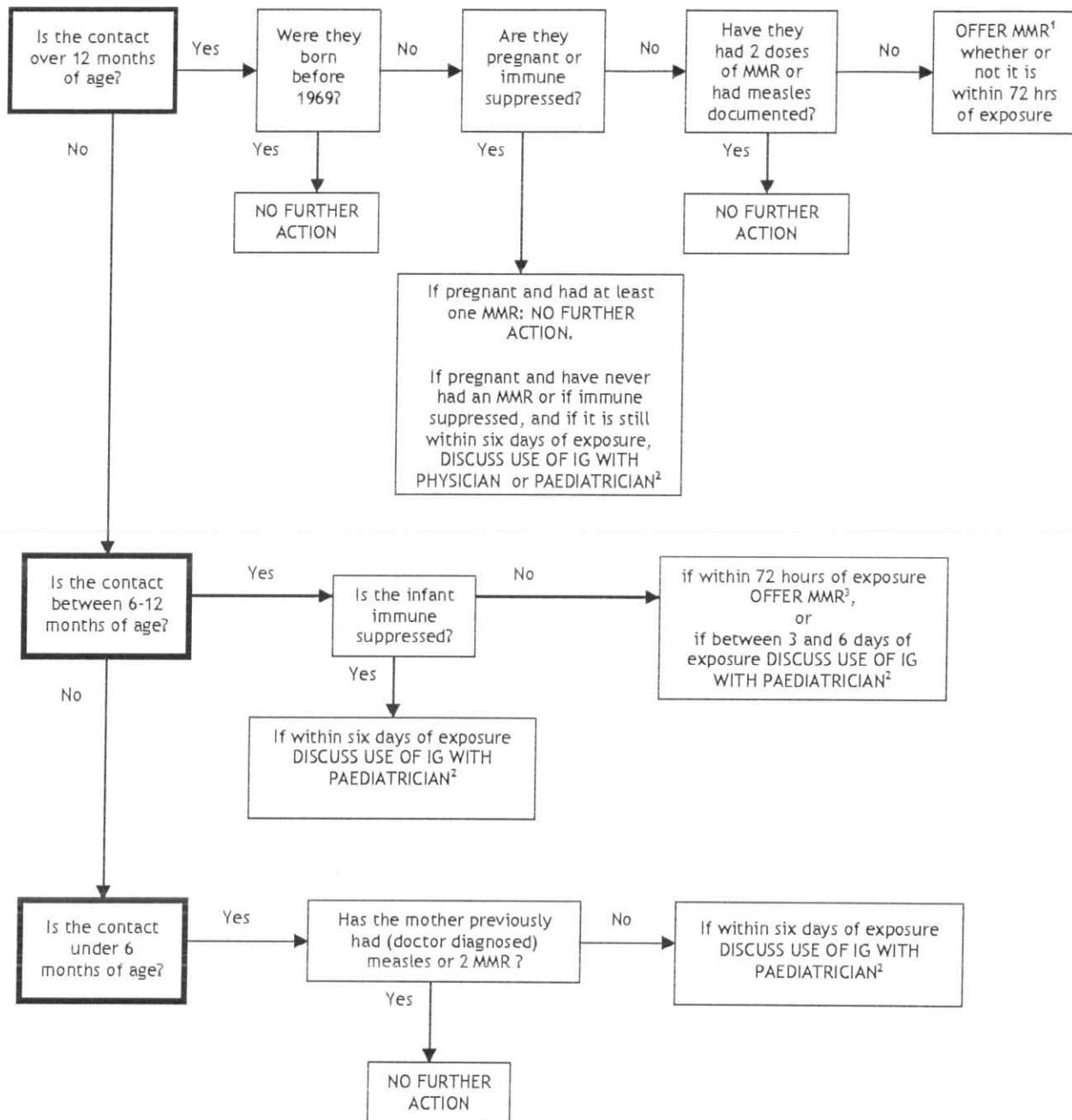
Addressing concerns about MMR vaccine

- MMR is not associated with autism or inflammatory bowel disease
- Additional material to help address these issues with parents will be circulated shortly

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Management of CONTACTS of Measles



Notes:

* MMR = measles, mumps and rubella vaccination

* IG = immunoglobulin

* IG is a blood derived product and parental consent is required for immunoglobulin to be given. Consent forms are available from the Ministry of Health and Transfusion Medicine (Blood Bank). GPs should have their own supply of the form.

¹ If this is to be the first MMR, give the second after one month.

² Subsequently requires follow up to review when it may be appropriate to give MMR for long term measles immunity.

³ The contact should subsequently have two MMR doses when over 12 months of age.

Management of CASES of Measles

Measles Case ?

If measles is a possibility, place patients in a separate area to avoid infecting others in the waiting room

CLINICAL CASE DEFINITION

- Fever $\geq 38^{\circ}$ C with,
- Morbilliform rash and,
- Cough or,
- Coryza or,
- Conjunctivitis or,
- Koplik's spots

Meets Clinical Case Definition?

Yes

1. **Notify** Public Health Unit on suspicion.
 2. Arrange laboratory **testing***.
 3. **Ask** the patient or parent about any **susceptible household contacts** and **arrange followup** (as per contact guideline sheet) for any of your patients as required.
 4. **Give information sheet** to the patient to give to any other contacts, asking them to see a GP if required.

DIFFERENTIAL DIAGNOSIS

- 7-10 days post MMR vaccination
- rubella
- roseola infantum
- human parvovirus
- enteroviruses
- arboviruses
- Kawasaki syndrome
- drug hypersensitivity rash (may present many days after drug has been ceased)
- group A streptococcal disease (scarlet fever)

***Laboratory Tests**

Serology: 5mls plain blood or serum for all cases
Virology: If rash <3 days also send specimen for PCR, either: a) nasopharyngeal and throat swab in virus transport media (preferred); or b) Early Morning Urine (EMU); or c) blood in EDTA/ACD tube
 (Seroconversion takes several days; lab will perform serology first, then PCR if serology negative or inconclusive)

Information for contacts of suspected measles cases

You or a child in your care have been in contact with a suspected case of measles, who was likely to have been infectious from _____ (date).

Measles is a highly infectious and potentially serious viral illness. Vaccination is the most effective way to prevent measles. Prompt vaccination can provide protection even after exposure to measles.

Please contact your own GP or after-hours surgery urgently for advice and management if the person who has been in contact with measles:

1. was born after 1969 and has **never** had a measles (MMR) vaccination - including children over 6 months of age who are not yet due for their first MMR
2. has only had **one** measles (MMR) vaccination
3. has a **compromised immune system** (e.g. due to medications or other illness)
4. is **pregnant** and unimmunised

Thank you for your co-operation.

Dr Ramon Pink
Medical Officer of Health

General practitioners: please give this information to patients or parents of patients with suspected measles. Measles is considered infectious from 4 days before until 4 days after the onset of the rash.

