

In focus

Pertussis

- Also known as Whooping cough and the 100 day cough
- Pertussis is caused by a bacterium, *Bordetella pertussis*; a gram-negative bacillus, which colonises the upper respiratory tract.
- Pertussis is highly contagious and is spread through the air by infectious droplets
- Did you know 92% of children catch pertussis from a family member(Dr Jenny Royale, IMAC Conference2011)
- All suspected cases must be notified immediately to the Medical Officer of Health by using the July 2011 fax notification form or by phone if after hours

Signs, Symptoms and Complications

Pertussis disease process is divided into three stages:

1) Catarrhal stage

- Lasts 1-2 weeks and includes a runny nose, sneezing and a mild cough (all similar symptoms to the common cold). Often the only clue to diagnosis may be contact with a known case. Note: If high fever and sore throat present this suggests cause is something other than pertussis.

2) Paroxysmal stage

- Lasts 1-6 weeks, but can persist for up to 10 weeks.
- Symptoms are characterised by bouts of paroxysmal coughing which can be accompanied by the characteristic whoop and or vomiting. Infants generally do not have the characteristic “whoop” sound.

3) Convalescent stage

- May last for months.
- Although the cough usually disappears after 2-3 weeks, paroxysms may recur whenever the patient suffers any subsequent respiratory infection.

Pertussis is more severe in infants and young children. Presentation varies with age, immunisation status and previous infection. In adults and adolescence a persistent cough, often for more than four weeks, is a key feature

Complications:

The most common complications are secondary infections such as otitis media and pneumonia. Severe coughing may lead to hypoxia. In 1 to 3 per thousand children, whooping cough leads to permanent brain damage, paralysis, deafness or blindness.

Period of isolation:

Cases should be excluded from school or day-care 3 weeks from the date of onset of paroxysmal cough, or they have received five days of antibiotics.
Unvaccinated children to be excluded for 14 days from last exposure.

Immunisation is the best method of protection:

- Acellular Pertussis Vaccine has an 84% efficacy after 3 doses (2011 Imm Handbook pg.141)
- Immunity from both natural infection and vaccination wanes after 5-10 years hence the need for booster immunisations
- In New Zealand pertussis vaccines are given at six weeks, three months, five months, four years and 11 years of age.
- Immunisation is recommended but not funded for health professionals, staff of day-care centres and house hold contacts of new-borns. Some countries e.g. Australia, recommend that, in addition to these groups, grandparents-to-be are immunised to protect infants.
- Further boosters of dTap (Boostrix) may be given at approximately 10 yearly intervals

NB: If a child is diagnosed with pertussis and due for immunisations, vaccinations should not be delayed until cough is gone unless child has a fever (as per pg 34-35 2011 Immunisation handbook). Dr Nikki Turner IMAC, Dr Jill Sherwood MOoH

Immunisation Advice and Schedule Change October 2011

Message from Jill Sherwood Medical Officer of Health

The risk of the measles outbreak in Auckland becoming more widespread is high with cases recently confirmed in Bay of Plenty/Lakes, Wellington and Christchurch.

Hence proactive MMR immunisation of susceptible people is a priority

We have provided an action plan below but **recommend:**

- **INITIAL FOCUS is on reaching those who have not yet had one dose of MMR:**
 - **infants aged 12 -15 months who have not yet received a dose of MMR**
 - **children and adults up to age 42 years (birth year 1969 onwards) who have not received a dose of MMR**
- **ONLY THEN focus on achieving second dose coverage**

MEASLES IMMUNISATION RECOMMENDED PRIORITY PLAN

All patient contact staff born from January 1969 who have not had two doses of MMR or who are unsure of their immunisation status	<ul style="list-style-type: none"> ▪ Offer two doses of MMR vaccine given 28 days apart as soon as possible.
Anyone aged 12 months to 15 years who has not been immunised.	<ul style="list-style-type: none"> ▪ Actively offer MMR, and then a recall for a second dose 28 days later ▪ NB: All other non-MMR vaccinations usually administered at 15 months can also be given from 12 months
Teenagers (or adults born from January 1969) 15 years and over who have never been immunised for measles.	<ul style="list-style-type: none"> ▪ Opportunistically offer MMR, and then a recall for a second dose 28 days later
Children under 4 years who have had one MMR only	<ul style="list-style-type: none"> ▪ Active recall to offer second MMR any time after 28 days from dose one ▪ NB: The 4 year old dose for DTaP-IPV should still be administered separately at age four.
Anyone who is aged 4 – 15 years and has had one MMR only.	<ul style="list-style-type: none"> ▪ Active recall to offer second MMR any time after 28 days from dose one
Teenagers (or adults born from January 1969) 15 years and over who have had one dose only of MMR or measles containing vaccine.	<ul style="list-style-type: none"> ▪ Opportunistically offer second dose of MMR,

Note: MMR should not be given to pregnant women or immune compromised people.

Is serology recommended?

IgG testing is not recommended before vaccination or to check the status of people born before 1969
 IgG may be useful in vulnerable people who are contacts of a case such as in pregnant women to determine risk and whether other preventative measures are required.

CLAIMING THE IMMUNISATION BENEFIT SUBSIDY FOR MMR

The immunisation benefit can be claimed electronically in the usual way for everyone born on or after January 1969 who is not fully vaccinated according to the immunisation schedule.

- For children over one year, teenagers, and adults receiving their first dose, use the indicator of 15 m (MMR1).
- For children, teenagers and adults receiving their second dose, which can be given at any time from one month after the first dose, use the indicator of 4 y (MMR2).

Authorised Independent Vaccinators:

If you have attended a vaccinator training course, consider becoming an Authorised Independent Vaccinator, if you have not already done so.

Nurses vaccinating in general practice, who are not authorised by the Medical Officer of Health, do not meet the current requirements of the Medicines Act 1981 unless they are administering a vaccine prescribed by a medical practitioner or are operating under a standing order.

Vaccines are prescription medicines and it is important that vaccinators meet their legal obligations relating to immunisation practice.

- The following persons are authorised to prescribe medicines under the Medicines Act 1981:
 - A practitioner (medical practitioner or dentist)
 - A registered midwife
 - A designated prescriber (eg, includes registered nurse practitioners or registered nurses working in diabetes health fulfilling the designated prescriber criteria)
- Vaccines may also be administered to any person under the Medicines Regulations 1984, Regulation 44A:
 - By a person who is authorised by either the Director-General of Health or a Medical Officer of Health for the purposes of an approved immunisation programme, without requiring a prescription (Authorised Independent Vaccinator),
- As an AIV you may administer either all or specific vaccines on the National Immunisation Schedule as authorised by the Medical Officer of Health. Other vaccines may also be administered if part of an immunisation programme approved by the Director General of Health or a Medical Officer of Health.
- Approval for an immunisation programme (eg, for non-schedule vaccines such as non-funded influenza or travel vaccines) is a separate process to authorisation.
- If you do not wish to become an Authorised Independent Vaccinator, you need to be supported by vaccine specific standing orders or have a medical practitioner prescribe the vaccine(s) for each vaccination episode.

Please contact Christine 520 6212 if you have any questions

Ideas for future ImmPHO Newsletters warmly welcome