

Vaccine Changes August 2000

Information for vaccinators & administrators



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Vaccine Changes – August 2000

Information for vaccinators

From mid August 2000, changes are being made to some of the vaccines used for the Childhood Immunisation Schedule. **There are changes to:**

- acellular pertussis (aP) (whooping cough) vaccines - these are as effective as the current whole cell vaccine but give fewer adverse reactions
- the type of *Haemophilus influenzae* type b (Hib) vaccines used.

The vaccine combinations will change to allow these changes to occur, and there is a minor change to the schedule (one less dose of Hib vaccine).

New vaccines and schedule from mid August 2000

6 weeks	DTaP (Infanrix)	Hib-Hepatitis B (Comvax)	Oral Polio
3 months	DTaP (Infanrix)	Hib-Hepatitis B (Comvax)	Oral Polio
5 months	DTaP (Infanrix)	Hepatitis B	Oral Polio
15 months	DTaP/Hib (Infanrix/Hib)	MMR	
11 years	Td	MMR	Oral Polio

Important Messages

- New vaccines will be available from Monday 14 August, but may take several days to be delivered.
- Infants starting their immunisations from mid August should start on the new vaccines and schedule.
- Children who have already started their immunisations can continue with the current vaccines, as long as vaccinators have stocks, then change to one of the transitional schedules (see next page).
- Do not postpone immunisation until the new vaccines arrive – a serious whooping cough epidemic is affecting the country, with over 2000 cases notified, over 200 hospital admissions and one death so far.
- Acellular pertussis vaccine is only available in combination vaccines, not on its own.
- The **timing** of immunisation visits **is not changing** – just the vaccines.
- Vaccinators should order the new vaccines in the usual way.
- There is **no need to stockpile or discard** vaccines – there is enough Tetramune in the country to last during the changeover.
- These changes do not affect the 11 year vaccinations.

Transitional schedules

These transitional schedules are for children who partly complete their immunisation programme using the previous schedule and vaccines. Most children should continue on the previous schedule while stocks of the

vaccines last, but may be transferred at some later time. Children who have had a significant reaction to DTPH should change to the appropriate transitional schedule.

Children who transfer after the first (6 week) immunisation episode under the previous schedule will be due for:			
3 months	DTaP (Infanrix)	HibHepB (Comvax)	OPV
5 months	DTaP (Infanrix)	HibHepB (Comvax)	OPV
15 months	DTaP/Hib (Infanrix/Hib)	MMR	
11 years	Td	MMR	OPV

Children who transfer after the 6 weeks and 3 month immunisation episodes under the previous schedule will be due for:			
5 months	DTaP (Infanrix)	HibHepB (Comvax)	OPV
15 months	DTaP/Hib (Infanrix/Hib)	MMR	
11 years	Td	MMR	OPV

Children who transfer after the 6 weeks, 3 month and 5 month immunisation episodes under the previous schedule will be due for:			
15 months	DTaP/Hib (Infanrix/Hib)	MMR	
11 years	Td	MMR	OPV

Information on the vaccine changes

Acellular Pertussis Vaccines

Acellular pertussis vaccines (aP) control pertussis very effectively, and have the advantage of lower rates of side effects than the older whole cell vaccines. Acellular pertussis vaccines are 80–90% effective in preventing pertussis in field trials, which is similar to good whole cell pertussis vaccines.

The vaccines contain three or more purified components of *Bordetella pertussis* - pertussis toxin (PT), filamentous haemagglutinin (FHA), pertactin, and fimbrial antigens or agglutinogens.

Acellular pertussis vaccines cause a much lower incidence of fever and local reactions than whole cell vaccines. Although hypotonic-hyporesponsive episodes can occur, they do so less frequently than with the whole cell vaccine. The incidence of other adverse events with acellular vaccines has not been as extensively documented as it has with whole cell vaccines. Pertussis vaccines do not cause infantile spasms, epilepsy or sudden infant death syndrome (SIDS - cot death). Indeed, there is evidence that SIDS is less common in children who have been vaccinated.

Acellular pertussis vaccine is included in the Diphtheria-Tetanus-acellular Pertussis vaccine combination (referred to as either DTaP or DTPa). Acellular pertussis vaccine is only available in combination vaccines, not on its own.

The vaccines chosen for the New Zealand schedule are Infanrix and Infanrix/Hib (SmithKline-Beecham). These contain the first three of the components listed above, PT, FHA and Pertactin. Infanrix/Hib (DTaP/Hib) also includes a Hib vaccine (PRP-T). There is no thiomersal in either vaccine.

Combination vaccines containing acellular pertussis and Hib components are currently only licensed in New Zealand for the booster dose for children aged 15 months and older. This is because some studies show infants have a lower antibody response to the Hib component of combination DTaP/Hib than when DTaP and Hib vaccines are given as separate injections in separate sites. However, the actual protection from combined DTaP/Hib vaccines seems to be similar to giving the vaccines at separate sites. Antibody response to DTaP/Hib at 15 months gives good boosting.

Comparison of complications and adverse reactions.

Parents sometimes have concerns about side effects from pertussis vaccines

Table 1 compares the side effects of acellular and whole cell pertussis vaccines. Table 2 compares the risk of complications from pertussis disease with side effects from the whole cell vaccine.

As can be seen pertussis disease causes far more complications than the whole cell vaccine, and the acellular vaccine causes fewer side effects than whole cell vaccines.

Table 1:

Comparison between rates of side effects for vaccines containing acellular pertussis and whole-cell pertussis components

Event	% of vaccinated children	
	Acellular Pertussis Vaccines	Whole Cell Pertussis Vaccines
Local redness > 20mm	1 – 6%	~ 16%
Local swelling > 20 mm	1 – 8%	20 – 43%
Local tenderness or pain	1 – 13%	21 – 65%
Irritable/fretful	12 – 30%	42 – 54%
Fever $\geq 38^{\circ}$	1 – 7%	15 – 40%
Fever $\geq 40^{\circ}$	< 0.1%	0.2 – 0.3%
Persistent crying > 3 hrs	< 0.1%	0.4 – 1%
Unusual high-pitched cry	< 0.1%	0.1%
Hypotonic, Hyporesponsiveness episodes	< 0.01%	~ 0.07%
Cyanosis	< 0.01%	~ 0.01%
Seizures	< 0.01%	0.02 – 0.06%
Anorexia	17 – 25%	21 – 35%
Vomiting	7 – 21 %	13 – 21 %
Drowsiness	29 – 48%	9 – 62%

Adapted from Plotkin and Orstein *Vaccines 2nd edition*, Greco D, NEJM 1996; 334: 341-348, Cody et al Pediatrics 1981; 68: 650–60, New Zealand and Australian Immunisation Handbooks and Medsafe Data Sheets

Table 2:

Complications of pertussis disease (whooping cough) compared with whole cell pertussis vaccine

Complications	Pertussis Disease % of affected children	DTP Whole Cell Vaccine % of vaccinated children
Convulsions	0.6 – 8 %	0.0003 – 0.09 %
Encephalopathy	0.09 – 4 %	0.0001 – 0.003 %
Shock-like state		0.005 – 0.03 %
Deaths	0.1 – 4 %	< 0.002 %
CNS sequelae	0.6 – 2 %	0.0002 – 0.0006

Adapted from WHO Bulletin 1984; 62: 517-26, MMWR 1990 39(4) 57-58, 63-66, New Zealand and Australian Immunisation Handbooks.

Changes to *Haemophilus influenzae* type b (Hib) vaccines

The introduction of vaccines to prevent *Haemophilus influenzae* type b (Hib) disease in New Zealand in 1994 led to a dramatic decrease in cases. The vaccines used in the schedule are changing following a review of the small number of cases of childhood Hib disease since 1994. This showed that a few infants under age one year developed Hib disease despite being partly vaccinated. Before immunisation was introduced, a high proportion of the cases of Hib disease in New Zealand were in children under one year of age (a pattern common for indigenous people in some developed countries and in less developed countries), whereas in many other developed countries, the disease is more common in older children. Hib disease commonly presents as meningitis in infants and epiglottitis in older children. The Hib vaccine used in the new primary series

(the first two doses, due at 6 weeks and 3 months) is called PRP-OMP. It induces protection from the first dose for most children, whereas the Hib vaccine in Tetramune (HbOC) needs at least two doses to give high protection rates. The vaccine chosen for the new schedule is Comvax (Hib-Hepatitis B – Merck Sharp & Dohme). It contains PRP-OMP Hib vaccine and the same Hepatitis B component as in the current MSD Hepatitis B vaccine, although at a higher dose (5 µg rather than 2.5 µg). There is no thiomersal in this vaccine.

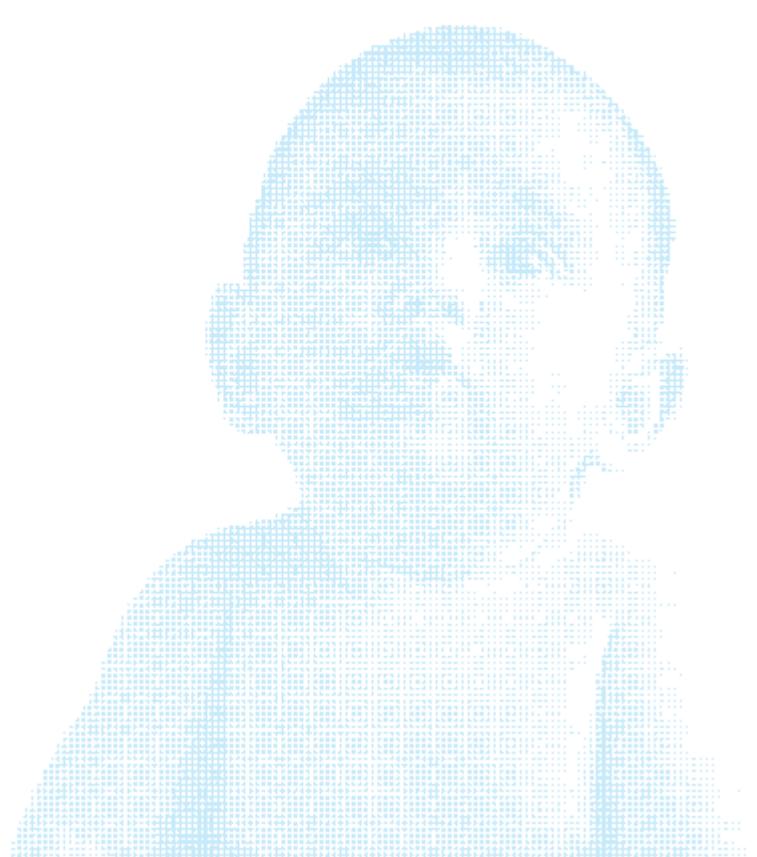
Protection from PRP-OMP wanes faster than with HbOC, so the booster dose at 15 months is important. This dose will be with Infanrix/Hib, which contains the PRP-T Hib vaccine and gives good long-term protection. Available information indicates that using this combination of Hib vaccines gives good immunological protection.

Further information

General information on pertussis (whooping cough) and Hib disease, and vaccines can be found in the *Immunisation Handbook* (Ministry of Health/Health Funding Authority 1996 - also available on the Ministry of Health web site www.moh.govt.nz).

The Medsafe Data Sheet gives further technical information on the vaccines (www.medsafe.govt.nz).

There are some minor differences between the datasheets and the information given in this booklet. These differences have been discussed with Medsafe, the Ministry of Health and vaccine companies, and the information given here is accurate and applicable to New Zealand.



Catch-up schedules

Catch-up schedules are for children who start their immunisation programme late, or start the schedule but have a long gap. These schedules replace those in Appendix 3 of the *Immunisation Handbook* (pages 168 – 169), but the notes in the *Handbook* still apply.

If the child has started previously, do not repeat the doses already given. Parents may find it useful to be given a list of dates when immunisations are due.

First dose at 3-5 months

First dose	DTaP	HibHepB		OPV
6 week interval	DTaP	HibHepB		OPV
2 month interval	DTaP	HepB		OPV
At age 15 months	DTaP/Hib		MMR	
At age 11 years	Td		MMR	OPV

First dose at 6-10 months

First dose	DTaP	HibHepB		OPV
6 week interval	DTaP	HibHepB		OPV
2 month interval	DTaP	HepB		OPV
6 month interval	DTaP/Hib		MMR	
At age 11 years	Td		MMR	OPV

First dose at 11-12 months

First dose	DTaP	HibHepB		OPV
6 week interval	DTaP	HibHepB		OPV
2 month interval	DTaP		MMR	OPV
At age 21 months	DTaP/Hib	HepB		
At age 11 years	Td		MMR	OPV

First dose at 13-14 months

First dose	DTaP	HibHepB		OPV
6 week interval	DTaP	HibHepB	MMR	OPV
2 month interval	DTaP	HepB		OPV
At age 23 months	DTaP/Hib			
At age 11 years	Td		MMR	OPV

First dose at 15 months-5 years

First dose	DTaP	HibHepB	MMR	OPV
6 week interval	DTaP	HepB		OPV
2 month interval	DTaP	HepB		OPV
6 month interval	DTaP			
At age 11 years	Td		MMR	OPV

First dose at 5-7 years

First dose	DTaP	HepB	MMR	OPV
6 week interval	DTaP	HepB		OPV
2 month interval	DTaP	HepB		OPV
6 month interval	DTaP (or Td if age \geq 7 years)			
At age 11 years	Td		MMR	OPV

First dose at 7 years and older

First dose	Td	HepB	MMR	OPV
6 week interval	Td	HepB		OPV
6 month interval	Td	HepB		OPV
At age 11 years	Td		MMR	OPV

Questions and Answers on the Vaccine Changes

What are the new vaccines?

Three new vaccines are being used:

- Diphtheria-tetanus-acellular pertussis vaccine (DTaP) – INFANRIX (SB),
- Diphtheria-tetanus-acellular pertussis/*Haemophilus influenzae* type b vaccine (DTaP/Hib) – INFANRIX/HIB (SB), and
- *Haemophilus influenzae* type b-Hepatitis B vaccine (HibHepB) – COMVAX (MSD).

What is the formulation of the new products?

The new vaccines have the following components:

- **INFANRIX:** a 0.5 ml dose contains not less than 30 IU of diphtheria toxoid, 40 IU tetanus toxoid, and three purified pertussis antigens: 25 µg pertussis toxoid, 25 µg pertussis filamentous haemagglutinin, and 8 µg pertussis pertactin. The vaccine is adsorbed with aluminium hydroxide, and contains 2-phenoxyethanol as a preservative.
- **INFANRIX/Hib:** after reconstitution, a 0.5 ml dose contains not less than 30 IU of diphtheria toxoid, 40 IU tetanus toxoid, 25 µg pertussis toxoid, 25 µg pertussis filamentous haemagglutinin, 8 µg pertussis pertactin, and 10 µg of *Haemophilus influenzae* type b PRP conjugated to approximately 30 µg tetanus toxoid. The vaccine is adsorbed with aluminium hydroxide, and contains 2-phenoxyethanol as a preservative and lactose as stabiliser.
- **COMVAX:** a 0.5 ml dose contains 7.5 µg of *Haemophilus influenzae* type b purified capsular polysaccharide (PRP – polyribosylribitol phosphate) conjugated to 125 µg of *Neisseria meningitidis* outer membrane protein (OMP), and 5 µg hepatitis B surface antigen. The vaccine is adsorbed with aluminium hydroxide.

How are the new vaccines manufactured?

INFANRIX and **INFANRIX/Hib:** the diphtheria and tetanus toxins are obtained from cultures of *Corynebacterium diphtheriae* and *Clostridium tetani* and are then detoxified and purified. The acellular pertussis vaccine components - pertussis toxoid (PT), filamentous haemagglutinin (FHA) and pertactin - are prepared by growing *Bordetella pertussis*, from which the PT, FHA and pertactin are extracted, purified and treated with formaldehyde; PT is irreversibly detoxified. The Hib capsular polysaccharide in INFANRIX/Hib is prepared from *Haemophilus influenzae* type b and conjugated to tetanus toxoid. After purification the conjugate is lyophilised in the presence of lactose as stabiliser.

COMVAX: the hepatitis B surface antigen (HBsAg) is obtained from cultures of a recombinant yeast. The hepatitis B component is the same as in the current MSD hepatitis B vaccine (H-B-VAX II), although at a higher dose. The Hib capsular polysaccharide in COMVAX is prepared from *Haemophilus influenzae* type b

and conjugated to an outer membrane protein from *Neisseria meningitidis*.

INFANRIX, INFANRIX/Hib and COMVAX all meet the World Health Organization requirements for biological substances.

Are the new vaccines genetically modified?

No, the vaccines themselves do not contain modified genetic material. However, the hepatitis B component of COMVAX is manufactured using processes that depend on genetically modified yeast to synthesise the HBsAg.

Is there any thiomersal or other preservative in the new vaccines?

There is no thiomersal (which contains a minute amount of mercury) in any of the new vaccines (COMVAX, INFANRIX or INFANRIX/Hib). Phenoxyethanol, a standard preservative, is included in INFANRIX and INFANRIX/Hib. The standard childhood 2.5 µg HepB vaccine (H-B-VAX II), which has been used in the past and will continue to be used at the 5 month episode, does include a small amount of thiomersal. Thiomersal-free 5 µg H-B-VAX II is presently on the schedule for newborn vaccination for infants of hepatitis B carrier mothers, and will eventually replace the 2.5 µg H-B-VAX II presently used for the 5 month episode.

How much of the new vaccine should I order?

Based on the number of doses of each vaccine on the schedule, the quantity of DTaP you will need should be about $\frac{3}{4}$ the quantity of DTPH previously used, the quantity of DTaP/Hib should be about $\frac{1}{4}$ the quantity of DTPH previously used, and the quantity of HibHepB should be about $\frac{2}{3}$ the quantity of HepB previously used. You should continue to require about $\frac{1}{3}$ the quantity of Hep B previously used. The number of doses of OPV and MMR required is unchanged.

How do I administer these vaccines (site and technique)?

All of the new vaccines (INFANRIX, COMVAX and INFANRIX/Hib) should be given by deep intramuscular injection in a different limb from any other concurrently administered vaccines. Follow standard practice, as per the Immunisation Handbook and the manufacturer's package insert.

How long do the new vaccines provide protection? How effective are they?

Pertussis (whooping cough) vaccine protects children during the years in which they are most vulnerable to the serious complications of pertussis. Acellular pertussis vaccines are about 80–90% effective, similar to whole cell vaccines. However, immunity wanes over a number of years (perhaps 5–10), as it does after pertussis infection. Immunised children can be infected, but usually have only mild symptoms. Adults can also get pertussis many years after vaccination or disease, and can

spread it to children.

A completed course of Hib vaccine gives long-term protection in over 95% of children. Children who have invasive Hib disease when younger than 24 months often do not develop immunity and remain at risk of further episodes of Hib disease. Age-appropriate Hib immunisation should be given to this group.

Why change to Hib PRP-OMP vaccines now?

Combination vaccines with this type of Hib vaccine have only recently become available in New Zealand. Hib disease has been very well controlled by DTPH. However, the PRP-OMP Hib vaccine has the additional advantage of giving protection after 1–2 doses, whereas 2–3 doses of DTPH were required before adequate protection was induced. Using PRP-OMP Hib vaccine is expected to prevent the small number of cases of Hib disease in children too young to be fully protected by DTPH.

Why use DTaP/Hib (INFANRIX/Hib) at 15 months, and not in the primary series?

There are no combination vaccines containing acellular pertussis and Hib components registered in New Zealand for the primary course of Hib vaccination. This is because trials have shown that lower levels of Hib antibodies may be induced when such combinations are given to infants. However, these combinations produce good boosting. Further information is being assessed.

What dose of hepatitis B vaccine do I give to children of hepatitis B carrier mothers?

All infants whose mothers are hepatitis B carriers need to be given thiomersal-free 5 µg hepatitis B vaccine (thiomersal-free H-B-VAX II, which is now available) at birth, together with hepatitis B immunoglobulin (HBIG) in the appropriate dose. These babies then require just the standard dose of COMVAX at 6 weeks and 3 months. This is because COMVAX has 5 µg of HBsAg, the amount these babies need at these vaccinations.

These infants should be given the usual childhood hepatitis B vaccine (2.5 µg) at 5 months if they have received COMVAX at 6 weeks and 3 months. Infants on a transitional schedule will be given COMVAX at age 5 months.

All children will now get the 5 µg dose of HepB vaccine in COMVAX – this is the usual dose given in most countries. New Zealand has been routinely using the lower 2.5 µg dose but will now move to a higher dose preparation in COMVAX. However, the single dose 2.5 µg HepB vaccine will still be given at 5 months, until replacement stocks arrive.

Infants at risk of TB should receive BCG at birth - check the *Immunisation Handbook*.

What about children who have already been given another type of acellular pertussis vaccine?

Although the recommendation is to complete the immunisation series with the same brand of vaccine, it is safe and effective to use any other licensed acellular pertussis vaccine to complete the child's immunisation. If it is not known which brand has been used, vaccination should continue using the publicly-funded vaccine brand (INFANRIX). It is important that children get immunised - there is a pertussis (whooping cough) epidemic affecting the country and failure to immunise may expose the child to increased risk of contracting the disease. (Note: TRIPACEL™ is not funded by the HFA.)

What if parents have already paid for acellular pertussis vaccine?

There is no provision for any refunds to be given to parents/care-givers who have already privately purchased vaccines containing acellular pertussis components.

How do we manage side effects?

Check for guidelines in the package insert provided with the vaccine, or refer to the *Immunisation Handbook*. You can also ask your Local or Regional Immunisation Coordinator, or phone the Immunisation Advisory Centre (IMAC) on freephone 0800 IMMUNE (0800 466 863).

How do we report side effects?

The Centre for Adverse Reactions Monitoring (CARM) is interested in monitoring the rate of adverse reactions to the new vaccines. Any adverse vaccine-related events are to be reported in the usual manner to CARM, using the prepaid postcard H1574 (see *Immunisation Handbook*, Section 1.10, p 20). (Note: If the patient or caregiver does not give consent the report should still be made but without personal identification being included.) The reporting address is:

CARM
PO Box 913
DUNEDIN

Tel: (03) 479 7247

Is a change needed to our practice software? Is there a change to the Immunisation Benefit claim form or process? What about the Immunisation Benefit?

Practice software is being changed for the new vaccines and schedule. If you submit your claims electronically, this should be straightforward. If you submit claims on paper, please indicate on the sheet which vaccines are being given.

Please continue to complete and submit your claims in the usual way. If you have any questions please contact Health Benefits Ltd (HBL) on freephone 0800 252 464. If you have questions about your practice software, please contact the company directly. Your Local Immunisation Coordinator may also be able to assist.

There is no change to the Immunisation Benefit at this time.

What about recording a child's immunisation?

It is important to accurately record the vaccines given to a child in both your clinical records and the *Well Child-Tamariki Ora Health Book*. Place the new schedule sticker-page for the *Health Book* (code 1205, supplies available from your local public health resource provider) on the vaccine administration chart at the back (page 128), trimming it to expose completed vaccinations as necessary.

Is there any special storage, disposal or infection control procedure required with the new vaccines?

No. Follow normal good practice.

What do we do with stock of the previous vaccines?

Children who have already started their immunisations should continue with the previous vaccines and schedule before changing to the new vaccines and one of the transitional schedules. Where possible, please use up current vaccines (those that have been correctly stored and are within the expiry date) before switching to the new vaccines for these children. Babies who are starting their vaccinations from mid August should have the new vaccines.

Any unused vaccines, or vaccines found to be potentially unsterile, or that have experienced cold-chain failure, or are past their expiry date, should be returned to your vaccine distributor for destruction.

Where can I get more information on these and other childhood vaccines?

- *The Immunisation Handbook*
- Regional and Local Immunisation Coordinators
- Immunisation Advisory Centre (IMAC), freephone 0800 IMMUNE (0800 466 863)
- Medsafe data sheets on vaccines at the Medsafe website: <http://www.medsafe.govt.nz>
> profs > Medicine data sheets, and then look under the alphabetical listing
- IMAC - <http://www.imac.auckland.ac.nz>
- Ministry of Health - <http://www.moh.govt.nz>
- The World Health Organization - <http://www.who.int/vaccines>
- Immunise Australia Campaign - <http://www.health.gov.au/pubhlth/immunise/index>
- Allied Vaccine Group - <http://www.vaccine.org>
- Children's Vaccine Program - http://www.path.org/programs/p-dis/gates_cvp
- The Vaccine Page (Vaccine News and Database) - <http://www.vaccines.com>
- Worldwide Vaccines (SmithKline Beecham) - <http://www.worldwidevaccines.com>
- VaccinesbyNet (Merck & Co.) - <http://www.vaccinesbynet.com>
- Berna (Swiss Serum & Vaccine Institute) - <http://www.berna.org>
- American Home Products (Lederle) - <http://www.ahp.com/ahp/ahp>

References

Immunisation Handbook, 1996, Ministry of Health/
Health Funding Authority, Wellington

The Australian Immunisation Handbook (7th edition), 2000,
National Health and Medical Research Council, Canberra

Acknowledgements

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IMAC

ESR

Medsafe

SmithKline Beecham

Merck Sharp & Dohme



Contacts List

Organisation or people to contact	Information or type of advice that can be provided to you	Contact details
Vaccine distributors (Zuellig Pharma or HHS)	To order your vaccines	Contact your local Zuellig branch or HHS, where appropriate
Local and Regional Immunisation Coordinators	Information about vaccines, vaccine administration, cold-chain, recall, etc	Contact your Local or Regional Coordinator. If you do not know who this is please contact IMAC
The Immunisation Advisory Centre (IMAC)	General information about vaccines, methods of vaccine administration, dealing with side effects/reactions, cold-chain maintenance, etc. This is mainly intended for parent information but Coordinator details will be supplied to you.	Freephone 0800 IMMUNE 0800 466 863
Public Health Service Health Education Resource Supplier	For copies of parent information flyers, immunisation schedule stickers for <i>Immunisation Handbook</i> and <i>Well Child-Tamariki Ora Health Book</i>	Contact your local Health Education Resource Centre or Public Health Service
Medical Officers of Health	Information about the new vaccine schedule	Contact your local Public Health Service
Health Benefits Ltd (HBL)	Information about claiming for the immunisation benefit	Freephone 0800 252 464
Medical software companies	Assistance with any computer problems, recall and audit	Intrahealth (09) 480 7442 Medtech (09) 358 0116 Houston (07) 834 9354 Alumni (03) 353 9990
Centre for Adverse Reactions Monitoring (CARM)	Reporting of adverse reactions/ side effects to vaccines	PO Box 913 Dunedin (03) 479 7247
SmithKline Beecham	Information on any SmithKline Beecham vaccine	Freephone 0800 VACCINE 0800 822 246
Merck, Sharp & Dohme (NZ) Ltd	Information on any MSD vaccine	0800 500 673
Health Funding Authority (HFA)	Information about the new vaccine schedule	Freephone 0800 367 847 for general inquires
Ministry of Health	Information about the new vaccine schedule	04 496 2000

