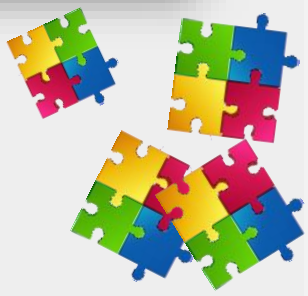
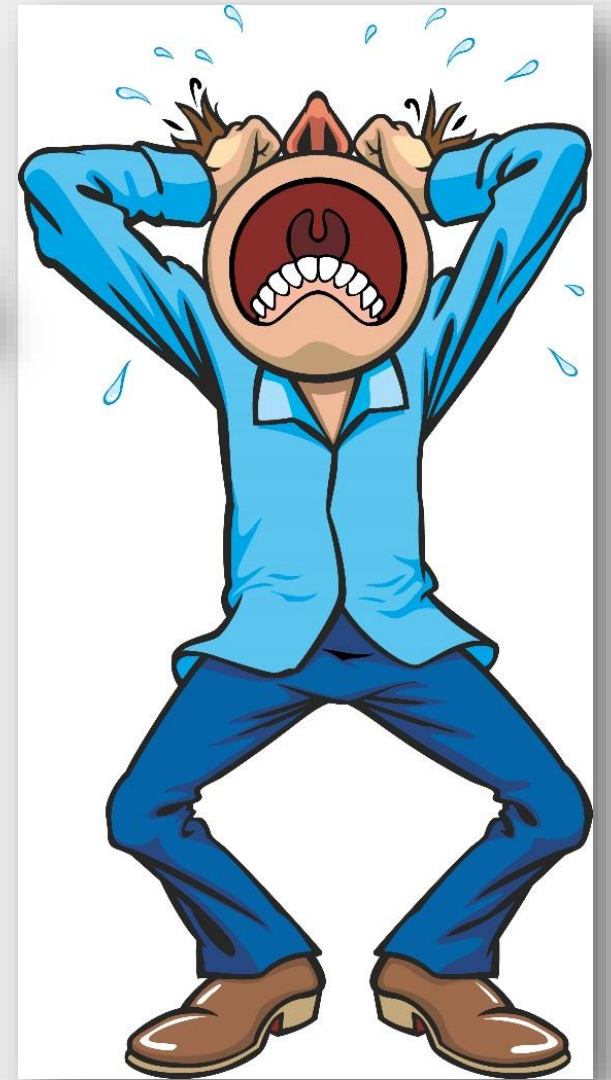




  
**KEEP  
CALM  
AND  
Catch  
UP**





# The Objective

## Catch-up vaccination

Catch-up vaccination aims to provide optimal protection against disease as quickly as possible by completing a person's recommended vaccination schedule in the shortest but most effective time frame.

- Take every opportunity to review a person's vaccination history
- Give them appropriate vaccinations as needed by:
  - Planning and documenting the recommended catch up schedule
  - Discuss the schedule with the person to be vaccinated or their parent/carer
- Assess vaccination status based on the National Immunisation Program + NSW Schedule



## Assessing immunisation status



## Principles of catch-up vaccination



## Catch-up resources



## Using the catch-up worksheet for children aged <10 years



## Catch-up guidelines for individual vaccines for children aged <10 years



## Catch-up schedules for people aged $\geq 10$ years



## References







### Confirming a person's vaccination history

Written documentation of vaccination is important to assess a person's vaccination status. Make every effort to confirm previous vaccination and obtain documentation.

How immunisation service providers manage inadequate records should be based on:

- the age of the person being vaccinated
  - whether they received previous vaccines in Australia or overseas
  - the vaccines being considered for catch-up
- 
- 





# Where can we find records??

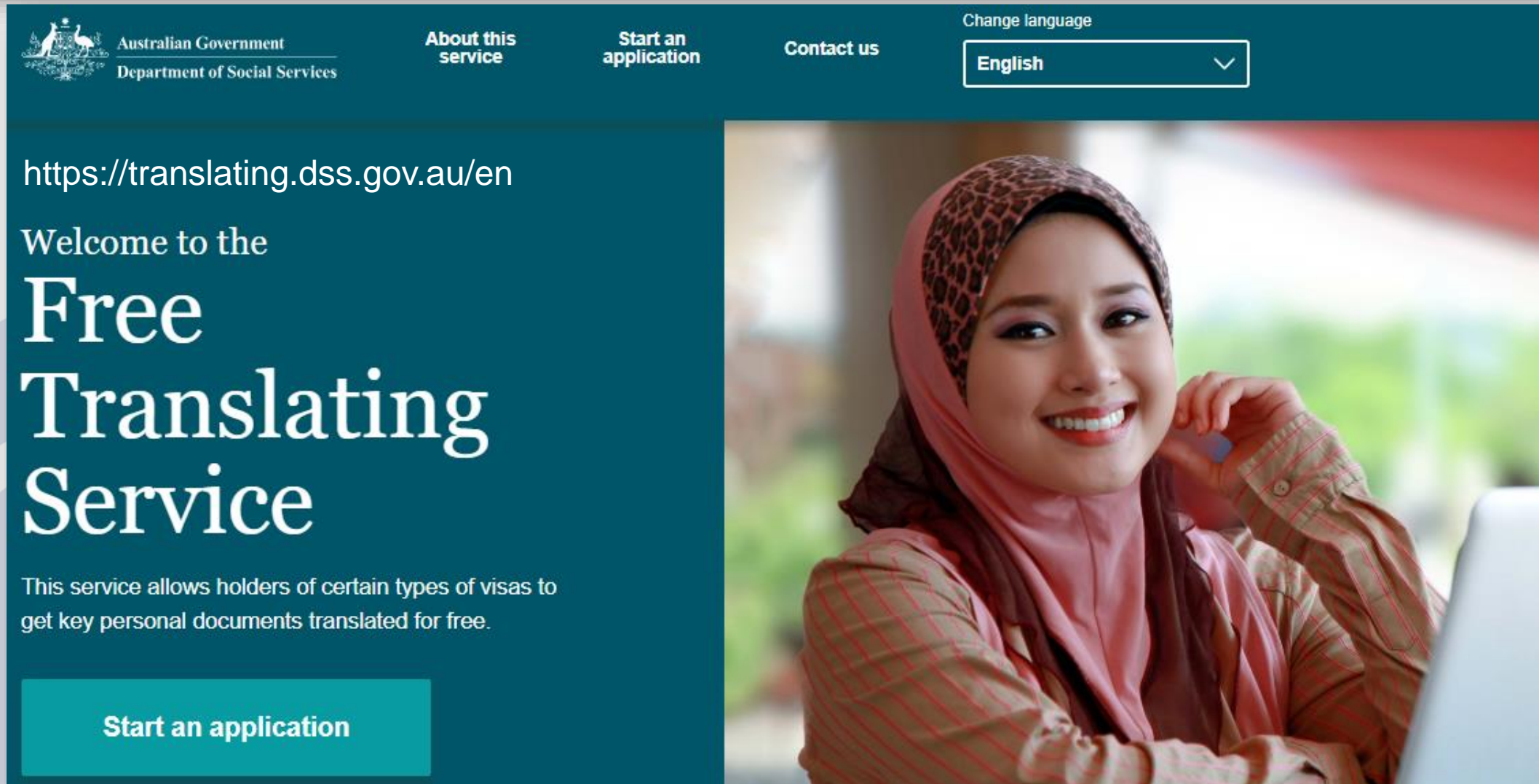
- Personal Health Record e.g Blue Book
- AIR
- GP records
- Overseas vaccination records (translated)
- Public Health Unit (High School Vaccination Program)
- Hospital Staff Health
- ~~HPV Register~~ - all transferred to AIR as of 1/11/2018
- Q Fever Register




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Note the Department of Social Services provides a free document translating service for Australian citizens and new migrants settling permanently in Australia. Within the first two years of arriving in Australia, eligible individuals can have key personal documents (including vaccination records) translated into English, free of charge, to assist with settlement into the community. The **Free Translating Service** is available on the Department of Social Services website.



The screenshot shows the homepage of the Free Translating Service. The header is dark teal with the Australian Government logo and navigation links: 'About this service', 'Start an application', 'Contact us', and a language dropdown set to 'English'. The main content area has a dark teal background on the left with the URL 'https://translating.dss.gov.au/en', a welcome message, and the service name in large white text. A teal button for 'Start an application' is at the bottom left. On the right is a large photo of a smiling woman in a pink hijab. Decorative puzzle piece icons are on the left and right sides.

 Australian Government  
Department of Social Services

[About this service](#) [Start an application](#) [Contact us](#) [Change language](#)  
English ▼


<https://translating.dss.gov.au/en>

Welcome to the

# Free Translating Service

This service allows holders of certain types of visas to get key personal documents translated for free.

[Start an application](#)



# Why make "every effort"??



## Scenario

- Contacted by a GP in March 2017 to provide a catch up vaccination schedule for an unvaccinated 22m old
- Mother stated child had never received any vaccinations
- Catch up schedule prepared:



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**Catch up visit 1**

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.
Now	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	1
	Pneumococcal	Prevenar13	1
	Measles, Mumps, Rubella	MMR II or Priorix	1
	Meningococcal C	NeisVac C	1

**Catch up visit 2**

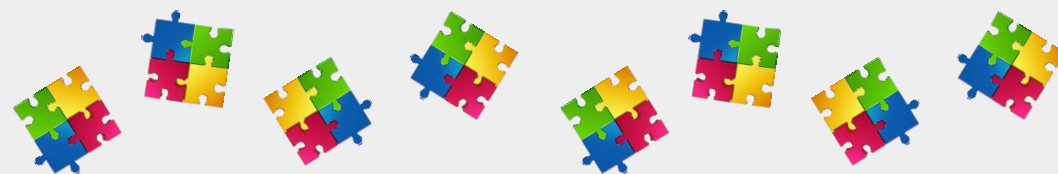
Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.
4 weeks after V1	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	2
	Measles, Mumps, Rubella, Varicella	Priorix tetra or Proquad	2

**Catch up visit 3**

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.
3 months after V2	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	3

**Catch up visit 4**

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.
6 months after V3	Diphtheria, Tetanus, Pertussis	Infanrix	4



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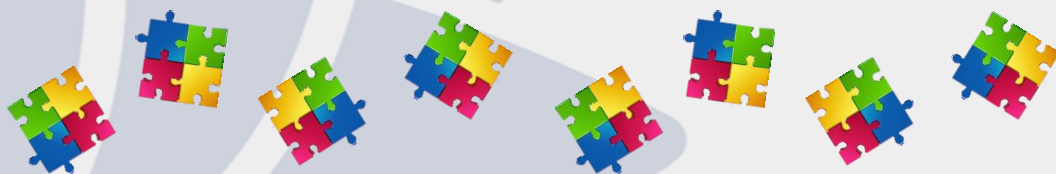


Catch up visit 1				
Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments
Now	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	1	24.4.17
	Pneumococcal	Prevenar13	1	21.8.17
	Measles, Mumps, Rubella	MMR II or Priorix	1	25.9.17
	Meningococcal C	NeisVac C	1	5.11.17
Catch up visit 2				
Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments
4 weeks after V1	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	2	29.5.17
	Measles, Mumps, Rubella, Varicella	Priorix tetra or Proquad	2	29.1.18
Catch up visit 3				
Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments
3 months after V2	Diphtheria, Tetanus, Pertussis, Hib, Polio, Hep B	Infanrix hexa	3	3.7.17
Catch up visit 4				
Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments
6 months after V3	Diphtheria, Tetanus, Pertussis	Infanrix	4	14.7.17

➤ Received fax from practice on 29/1/18 with the dates of when vaccines had been given

➤ On checking AIR to see if this was actually true discovered:

- Infanrix IPV and PCV13 given 4/2/16
- Infanrix IPV, PCV13 given 31/3/16



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## Valid Vaccine Doses

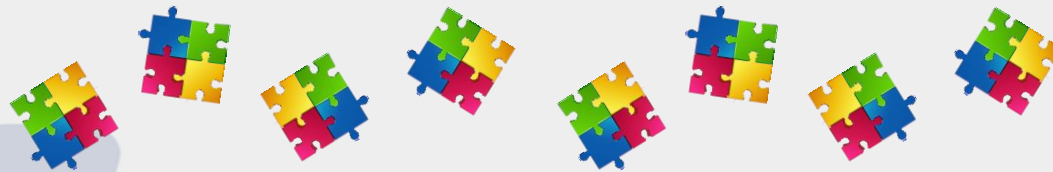
Date	Antigen	Dose No.	Provider
4/2/16	DTPa, Polio	1	Medical Centre 1
	PCV13	1	Medical Centre 1
31/3/16	DTPa, Polio	2	Medical Centre 1
	PCV13	2	Medical Centre 1
24/4/17	DTPa, Polio	3	Medical Centre 2
	HBV	1	Medical Centre 2
	Hib	1	Medical Centre 2
29/5/17	HBV	2	Medical Centre 2
	Hib	2	Medical Centre 2
21/8/17	PCV13	3	Medical Centre 2
25/9/17	MMR	1	Medical Centre 2
5/11/17	MenC, Hib	1 & 3	Medical Centre 2
29/1/18	MMRV	2	Medical Centre 2

- At time of second contact child was 2 years old
- Still required D3 Hepatitis B and D4 Infanrix to be UTD
- Continue with routine schedule at 4 years



# Lessons learned...

- **ALWAYS** check AIR or school records *even if* parent says they haven't been vaccinated
- **NEVER** change the intervals to shorter than recommended minimum
- If intervals change due to parental preference, check timing or contact PHU for assistance



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## Incomplete documentation of previous vaccination

If previous vaccination cannot be confirmed, assume that the person has not received the vaccine(s) they need.

For most vaccines (except Q fever), there are no adverse events associated with additional doses in people who are already immune.

Injection site reactions may increase after frequent additional doses of:

- diphtheria-containing vaccines
  - pertussis-containing vaccines
  - tetanus-containing vaccines
  - pneumococcal polysaccharide vaccines
- 
- 

However, in most cases, the benefits of protection from the vaccine will outweigh the risk of an adverse reaction.

Significant adverse events are rarely associated with additional (potentially repeated) doses of:

- MMR (measles-mumps-rubella) vaccine
- VV (varicella vaccine)
- IPV (inactivated poliovirus) vaccine
- hepatitis B vaccine



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# What about serology?

## Laboratory testing to guide catch-up vaccination

In some cases, laboratory testing can determine whether the person has immunity from previous vaccination or [infection](#), and may be useful to guide the need for catch-up vaccination.

Laboratory testing to determine immunity as a result of previous vaccination or [infection](#) is only reliable for certain diseases:

- hepatitis A
- hepatitis B
- measles
- mumps
- rubella
- varicella (but does not always detect vaccine-induced immunity)



## Catch-up vaccination for children <10 years old

Catch-up vaccination aims to provide the best protection against disease as quickly as possible by completing a child's recommended vaccination schedule.

### 1 Confirm the child's vaccination history



- ✓ Review the child's vaccination history to determine if they are up to date.
- ✗ If you cannot confirm previous vaccination, assume the child is not vaccinated. Children can safely receive most vaccines.
- ? If you are not sure how to plan the catch-up schedule, seek further advice from your state or territory health department.

### 2 Plan a catch-up schedule



#### Consider laboratory testing for immunity to some diseases

- ✓ Consider laboratory testing to guide catch-up vaccination for:
  - ▶ hepatitis A and B
  - ▶ MMR
  - ▶ varicella



#### Consider valid doses

- ✓ Check that any previous doses were received at the correct age and dosing intervals.



In almost all cases, do not repeat valid doses — count them as part of the schedule.

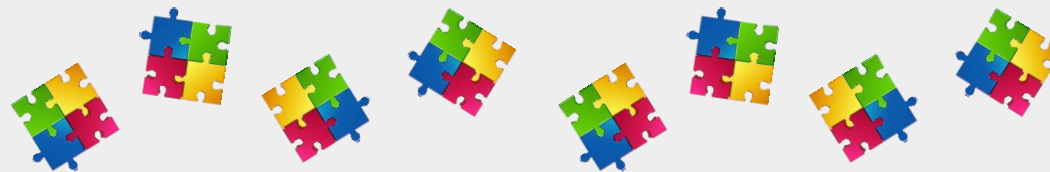
#### Refer to catch-up resources

- ✓ Use the catch-up resources in the Australian Immunisation Handbook to help plan a catch-up schedule.

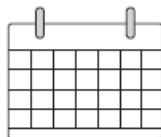
### 3 Start the catch-up schedule



- ✓ Discuss the catch-up schedule with the parent or carer before starting.



## 2 Plan a catch-up schedule



### Consider laboratory testing for immunity to some diseases



Consider laboratory testing to guide catch-up vaccination for:

- ▶ hepatitis A and B
- ▶ MMR
- ▶ varicella



- ▶ Do not use laboratory testing for any other diseases.
- ▶ Do not use past infection to guide the catch-up schedule.

## Principles of catch-up vaccination

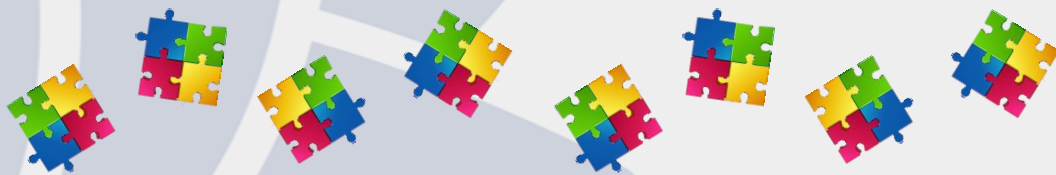


Apply these principles when planning catch-up vaccination:

- The scheduled interval between doses may be shorter or longer than the standard interval, and the number of doses needed may decrease with age at starting vaccination. For example, if starting vaccination against *Haemophilus influenzae* type b at 15 months of age, children need only 1 dose of (any) Hib (*Haemophilus influenzae* type b) vaccine.
- As a child gets older, the recommended number of vaccine doses may change, or the child may not need any doses. This is because they become less vulnerable to specific diseases as they get older.



- For incomplete or overdue vaccinations, always build a catch-up schedule based on the previous documented doses the person has received. In almost all cases, do not start the schedule again, regardless of the interval since the last dose. Count previous doses as part of the schedule. One exception to this rule is for oral cholera vaccine (see [Cholera](#)).
- If more than 1 vaccine is overdue, give 1 dose of each due or overdue vaccine at the first catch-up visit. Do not defer due or overdue vaccines (see [Giving multiple vaccine injections at the same visit](#) in [Administration of vaccines](#)). Schedule further required doses after the appropriate [minimum interval](#) (see [Table. Minimum acceptable dose intervals for children <10 years of age](#)).



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## Catch-up resources



- [online catch-up calculator](#)
- [World Health Organization online list of overseas immunisation schedules](#)
- [catch-up worksheet for children <10 years of age](#)
- [Table. Minimum acceptable age for the 1st dose of scheduled vaccines in infants in special circumstances](#)
- [Table. Number of vaccine doses the child should have received by their current age](#)
- [Table. Minimum acceptable dose intervals for children <10 years of age](#)
- [Table. Catch-up schedule for \*Haemophilus influenzae\* type b \(Hib\) vaccination for children <5 years of age](#)
- [Table. Catch-up schedule for 13vPCV for Aboriginal and Torres Strait Islander children living in NT, Qld, SA or WA ONLY, and all children with any medical condition\(s\) associated with an increased risk of invasive pneumococcal disease, aged <5 years](#)
- [Table. Catch-up schedule for 13vPCV for Aboriginal and Torres Strait Islander children living in NSW, Vic, Tas or ACT, and all children who do not have medical condition\(s\) associated with an increased risk of invasive pneumococcal disease, aged <5 years](#)
- [Table. Catch-up schedule for people ≥10 years of age \(for vaccines recommended on a population level\)](#)





# Resource. Catch-up worksheet for children <10 years of age for National Immunisation Program vaccines

## Catch-up worksheet

Name:

Date of this assessment:

Date of birth:

Age at this assessment:

Vaccine	Last dose given (dose number and date)	Number of doses needed at current age	Dose number due now	Further doses (interval or date)	Comments
DTPa					
Poliovirus (IPV)					
Hepatitis A					
Hepatitis B					



## Table. Minimum acceptable age for the 1st dose of scheduled vaccines in infants in special circumstances

Vaccine	Minimum age for 1st dose in special circumstances	Action if a vaccine dose is inadvertently given before the recommended minimum age <sup>2</sup>
DTPa	6 weeks	<ul style="list-style-type: none"> <li>• If a child received their 1st dose of DTPa-containing vaccine between &gt;28 days and &lt;42 days (6 weeks) of age, it does not necessarily need to be repeated. Limited data suggest that receiving the vaccine at this age will still be safe and immunogenic. Follow the National Immunisation Program schedule for future doses, with the next dose of DTPa-containing vaccine given at 4 months of age.</li> <li>• If a child received their 1st dose of DTPa-containing vaccine at ≤28 days of age, it is recommended that the dose is repeated. This repeat dose should ideally be given at 2 months of age. Follow the National Immunisation Program schedule for future doses, with the next dose of DTPa-containing vaccine given at 4 months of age.</li> </ul>
Hepatitis A (Aboriginal and Torres Strait Islander children in NT, Qld, SA and WA only)	12 months	<ul style="list-style-type: none"> <li>• If a child receives their 1st dose of hepatitis A vaccine at &lt;12 months of age, and they need ongoing protection against hepatitis A, repeat the 1st dose.</li> </ul>



## Table. Number of vaccine doses the child should have received by their current age

Vaccine	Child aged 0 to <2 months	Child aged 2 to <4 months	Child aged 4 to <6 months	Child aged 6 to <12 months	Child aged 12– 18 months	Child aged > 18 months to <4 years	Child aged 4 years to <10 years
DTPa	0	1	2	3	3	4	5 (unless dose 4 received at >3.5 years of age, then dose 5 is not needed)
Hepatitis A (Aboriginal and Torres Strait Islander children living in NT, Qld, SA and WA only)	0	0	0	0	1	2 (contact state or territory health authorities for advice about catch-up in children >2 years of age)	2 (contact state or territory health authorities for advice about catch-up in children >2 years of age)
Hepatitis B	0 (birth dose is recommended but no need to catch up if missed)	1	2	3	3	3	3





# Table. Minimum acceptable dose intervals for children <10 years of age

These are not the routinely recommended intervals between vaccine doses. These minimum intervals are only to be used for catch-up vaccination. Catch-up using a [combination vaccine](#) must meet the minimum intervals for all antigens.

Vaccine	Minimum interval between doses 1 and 2	Minimum interval between doses 2 and 3	Minimum interval between doses 3 and 4	Minimum interval between doses 4 and 5
DTPa	4 weeks	4 weeks	6 months	6 months (unless dose 4 received at >3.5 years of age, then dose 5 is not needed)
Hepatitis A (Aboriginal and Torres Strait Islander children living in NT, Qld, SA and WA only)	6 months	na	na	na
Hepatitis B (excluding birth dose)	1 month	2 months	na	na
MMR	4 weeks	na	na	na





## Table. Catch-up schedule for Haemophilus influenzae type b (Hib) vaccination for children <5 years of age

This table assumes that the minimum interval between doses has been met.

Number of Hib doses received previously	Current age	Age at 1st dose of Hib vaccine	Age at 2nd dose of Hib vaccine	Age at 3rd dose of Hib vaccine	Number of further primary dose(s) needed	Number of booster doses needed at age $\geq 18$ months, or 2 months after the last dose (whichever is later)
None	< 7 months	na	na	na	3	1
	7– 11 months	na	na	na	2	1
	12– 17 months	na	na	na	1	1
	18– 59 months	na	na	na	1	na
1	< 12 months	< 7 Months	na	na	2	1
	< 12 months	7– 11 months	na	na	1	1
	12– 17 months	< 12 months	na	na	1	1
	12– 17 months	$\geq 12$ months	na	na	na	1

**Table. Catch-up schedule for 13vPCV for Aboriginal and Torres Strait Islander children living in NSW, Vic, Tas or ACT, and all children who do not have medical condition(s) associated with an increased risk of invasive pneumococcal disease, aged <5 years**

Number of doses received previously	Age at presentation	Age at 1st dose of PCV	Age at 2nd dose of PCV	Age at 3rd dose of PCV	Number of further dose(s) required
None	<12 months	na	na	na	3
	12–59 months	na	na	na	1
1	<12 months	<12 months	na	na	2
	12–59 months	<12 months	na	na	1
	12–59 months	≥12 months	na	na	None
2	<12 months	<12 months	<12 months	na	1
	12–59 months	<12 months	<12 months	na	1

# Challenges / Obstacles

- Parental beliefs/concerns about overloading
- Previous AEFI or sibling/parent AEFI
- Access to services
- Unwell child or sibling or parent
- Misinformation
- Apathy



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Table 2: GP/Practice Nurse catch-up vaccination plan

Practice Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Ph: \_\_\_\_\_ Fax: \_\_\_\_\_

**Instructions:** Use this form in conjunction with Table 1. Complete all sections below, working from left to right columns.

If you would like your calculations checked please fax this form to:  
4221 6700



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PATIENT'S NAME: \_\_\_\_\_ DOB: \_\_/\_\_/\_\_ Current age: \_\_\_\_ (years) \_\_\_\_ (months) \_\_\_\_ (weeks) MEDICARE NO: \_\_\_\_\_ ( )

Today's Date: _____	Date(s) all doses given (complete all relevant dates)	Age when dose was given**	No. <u>VALID</u> ** doses given (circle one)	No. doses required at current age (see Table 1)	No. further doses required (circle one)	Australian NIP vaccine formulations for catch-up in children <10 years of age	CATCH-UP PLAN Check minimum dose intervals between each dose as per Table 1.
<b>Diphtheria Tetanus Pertussis</b> (DT only vaccines are not valid for the purposes of determining catch-up)			None One Two Three Four Five	One Two Three Four Five	None One Two Three Four Five	Choose the vaccine with the least amount of additional antigens.  <b>DTPa containing vaccines</b> <ul style="list-style-type: none"> <li>• Infanrix Hexa (DTPa + Polio + Hib + HepB)</li> <li>• Infanrix/Tripacel (DTPa only)</li> <li>• Infanrix IPV (DTPa + Polio)</li> <li>• Quadracel (DTPa + Polio)</li> </ul>	Give all the vaccines that are due now – do not defer.  Visit 1 give now:
<b>Poliomyelitis (IPV or OPV)</b> Booster dose recommended at 4 years of age. If the 4 <sup>th</sup> dose was given before 3.5 years of age, it should be repeated.			None One Two Three Four Five	One Two Three Four	None One Two Three Four	<b>NB:</b> Boostrix and Adacel brands are not registered for use ≤10 yrs of age.	Visit 2 (Min ____ months later) give:
<b>Hepatitis B</b> Administered overseas?: yes / no	Birth: _____	N/A	(excl. birth dose) None One Two Three	One Two Three	None One Two Three	<b>MMR combination vaccines</b> <ul style="list-style-type: none"> <li>• MMRII or Priorix (MMR only)</li> <li>• Priorix Tetra or Proquad (MMRV) - not for dose 1 MMR</li> </ul>	
<b>MMR</b> (NOT including measles only vaccine)			None One Two	None One Two	None One Two	<b>NB:</b> MMRV brands are not registered for use ≥14 yrs of age.	Visit 3 (Min ____ months later) give:
<b>Meningococcal C (MenCCV/4vMenCV)</b> <u>Conjugate only.</u> Polysaccharide (4vMenPV) vaccine is not counted as a valid dose.			None One Two Three	None One	None One	<b>Meningococcal vaccines</b> <ul style="list-style-type: none"> <li>• Nimenrix* (4cMenCV)</li> <li>• Menitorix (MenCCV+Hib) - for Hib catch-up only if Act-HIB unavailable</li> </ul>	
<b>Varicella</b>			None One Two	None One	None One	<b>NB:</b> * This is the only funded 4vMenCV for catch-up in <10 yrs of age.	
<b>Haemophilus Influenzae (Hib)</b> (Only required if < 5 years old)			None One Two Three Four	See Handbook Table 2.1.8	None One Two Three	<b>Monovalent vaccines</b> <ul style="list-style-type: none"> <li>• Enderix-B or H-B-VaxII paediatric formulations (Hep B only)</li> <li>• Varivax or Varilrix (varicella only)</li> <li>• IPOL (Polio only)</li> <li>• Prevenar 13 (PCV only)</li> <li>• Act-HIB (Hib only)</li> </ul>	Visit 4 (Min ____ months later) give:
<b>Pneumococcal (PCV)</b> (Only required if < 5 years old – unless underlying medical risks)			None One Two Three Four	See Handbook Table 2.1.9 and 2.1.11	None One Two Three		

\* Monovalent Hep B vaccine at birth, 1-2 months and 6-18 months of age is an acceptable alternative overseas Hep B schedule.

\*\*Ensure minimum intervals have been observed as per Table 1.

# Calculating catch-up vaccination requirements for <10 year olds.

Table 1 sets out the vaccines which are recommended for children under 10 years of age and the doses required for their current age. Use Table 1 in conjunction with *Table 2: GP/Practice Nurse catch-up vaccination plan* to calculate what vaccines are required.

**Table 1: Standard Vaccination Catch-up Recommendations for children aged <10 years.**

(adapted from The Australian Immunisation Handbook 10<sup>th</sup> edition [updated online])

Vaccine	Current age								Minimum dose interval between dose 1 and 2	Minimum dose interval between dose 2 and 3	Minimum dose interval between dose 3 and 4	Minimum dose interval between dose 4 and 5
	6 weeks to <4 months	4 to <6 months	6 to <12 months	12 to 18 months	>18 months to <4 years		4 years to <10 years					
					Born before 1 Oct 2014	Born after <sup>1</sup> 1 Oct 2014	Born before 1 Oct 2014	Born after <sup>1</sup> 1 Oct 2014				
	Doses required											
DTPa	1	2	3	3	3	4	4 <sup>2</sup>	5	4 weeks	4 weeks	6 months	6 months
Poliomyelitis (IPV)	1	2	3	3	3	3	4 <sup>3</sup>	4 <sup>3</sup>	4 weeks	4 weeks	4 weeks	Not required
Hepatitis B <sup>4</sup> (excl. birth dose)	1	2	3	3	3	3	3	3	1 month <sup>5</sup>	2 - 3 months <sup>5</sup>	Not required	Not required
MMR <sup>6</sup>	If given at <11 months of age the 1 <sup>st</sup> dose should be repeated at 12 months of age.				1	2	2	2	4 weeks	Not required	Not required	Not required
MenCCV/4vMenCV	If given at <11 months of age a booster dose is required at 12 months of age or 8 weeks after last dose, whichever is later.				1	1	1	1	Not required	Not required	Not required	Not required
Varicella <sup>6</sup>	If given at <12 months of age, the dose should be repeated, preferably at 18 months of age.					1	1	1	1	Not required	Not required	Not required
Rotavirus	Age limits apply - see Handbook Table 4.17.1		NO CATCH-UP									
Haemophilus influenza type B (Hib) – No catch-up > 5 years.	See Handbook Table 2.1.8 for Hib catch-up schedule <sup>7</sup>								Recommended interval between primary doses is 4 weeks. Booster doses are given >18 months or 8 weeks after the last dose, whichever is later.			
Pneumococcal (PCV) - No catch-up > 5 years for healthy kids.	See Handbook Table 2.1.9 & 2.1.11 for PCV catch-up schedule <sup>7</sup>								Recommended interval between doses is 4 weeks if aged <12 months and 8 weeks if ≥12 months.			

<sup>1</sup> All children born after 1 October 2014 are required to have had an 18 month booster dose of DTPa vaccine.

<sup>2</sup> Some children may have received 4 doses of DTPa by 18 months of age, especially if arrived from overseas. These children will require a 5<sup>th</sup> dose of DTPa after 4 years of age.

<sup>3</sup> A booster dose of IPV is recommended at 4 years of age. If the 4<sup>th</sup> dose was given before 3.5 years of age, it should be repeated. If 3<sup>rd</sup> dose of IPV is given after 4 years of age, a 4<sup>th</sup> dose is not required.

<sup>4</sup> Acceptable alternate overseas schedule: Monovalent Hep B vaccine at birth, 1-2 months and 6-18 months of age if given overseas.

<sup>5</sup> MINIMUM interval between dose 1 and 3, is 4 months. MINIMUM interval between dose 2 and 3 is 2 months (however, the optimum schedule is 0, 1 & 6 months). The MINIMUM age for dose 3 is 24 weeks.

<sup>6</sup> MMRV is not recommended for use as the 1<sup>st</sup> dose of MMR containing vaccine in children aged <4yrs. **ANY live vaccines can be given on the same day, if not there must be a minimum interval of 4 weeks.**

<sup>7</sup> Required doses vary depending on age at presentation and age when vaccine received; therefore tables must be referred to for each new catch-up.



Catch up vaccination schedule for  
Name and Age



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#### Immunisation History

#### Catch up visit 1

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments

#### Catch up visit 2

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments

#### Catch up visit 3

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments

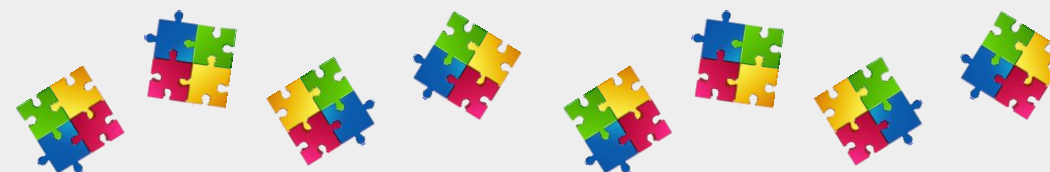
#### Catch up visit 4

Interval/time frame	Disease/s covered	Vaccine brand name	Dose No.	Alternative/Comments

#### Please note:



This schedule does not take into account any medical risk factor that may require additional vaccines or doses.  
Please refer to the current edition of the Australian Immunisation handbook - 'Vaccination for Special Risk Groups'

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## Catch-up schedules for people aged $\geq 10$ years

### ➤ More common in children however:

- Some adolescents / adults missed doses in childhood
- Unvaccinated by parental choice - own choice to be vaccinated
- Requirements for employment
- Travel

### ➤ Same principles apply - no need to restart courses, build on what has already been given

### ➤ Different vaccines

- DTPa vs dTpa
- MMRV vs MMR + VZV

# Health

Health issues such as premature birth, asthma, diabetes, heart, lung, spleen or kidney conditions, will mean you can benefit from immunisation.



What vaccines you need depends on your **Health**, **Age**, **Lifestyle** and **Occupation**



Everyone's **HALO** is different

# Age

At different ages you need protection from different diseases.

# Occupation

Some jobs expose you to a greater risk of contact with diseases, for example, working in a hospital or daycare centre. This means you can benefit from immunisation.



# Lifestyle

Lifestyle choices like travelling overseas, sexual activity or smoking, will mean you can benefit from immunisation.





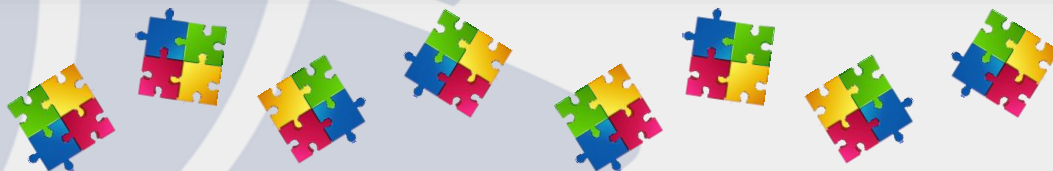
Australian Government

Department of Health

# National Immunisation Program: **Free catch-up vaccines for all individuals aged 10 to 19 years (ongoing)**

## VACCINATION PROVIDER FACT SHEET

- ✔ From 1 July 2017 all individuals (including refugees and humanitarian entrants) 10 to 19 years of age are eligible for free catch-up vaccines through the National Immunisation Program (NIP).
- ✔ The expansion will enable free access to a nationally consistent catch-up schedule for recommended early childhood vaccines.



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## FUNDED VACCINES

The following vaccines are funded for the eligible cohort on an ongoing basis under the expanded NIP. This cohort should also be closely evaluated regarding the potential need for other vaccines based on risk factors (e.g. influenza vaccine).

**Table 1.** Funded vaccine arrangements under this measure. The following table and footnotes are adapted from the *Australian Immunisation Handbook*, 10th edition, updated 2017 online.

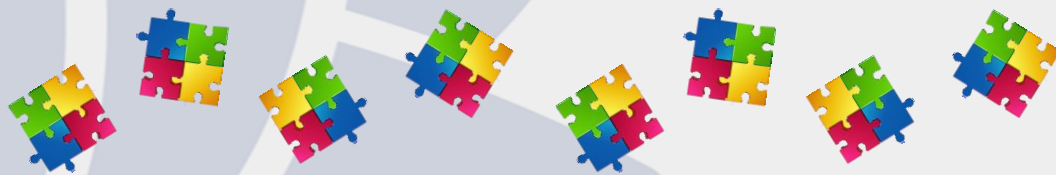
Vaccine	Doses required*	Minimum interval between dose 1 and 2	Minimum interval between dose 2 and 3
Diphtheria, tetanus and pertussis	3 doses†	4 weeks	4 weeks
Poliomyelitis	3 doses	4 weeks	4 weeks
Measles, mumps and rubella	2 doses	4 weeks	Not required
Hepatitis B - Aged 10–19 years^	3 paediatric doses	1 month	3 months§
Hepatitis B - Aged 11–15 years only^	2 adult doses	4 month	Not required
MenCCV	1 dose	Not required	Not required
Varicella#***	At least 1 dose if aged <14 years	If 2nd dose given, a 4-week interval is required#	Not required
	2 doses if aged ≥14 years	4 weeks	Not required
Human papillomavirus	3 doses	4 weeks	12 weeks

Please take note of the footnotes!!!

# National Immunisation Program: **Free catch-up vaccines for refugees and other humanitarian entrants aged 20 years and over (ongoing)**

## VACCINATION PROVIDER FACT SHEET

- ✓ From 1 July 2017 refugees and other humanitarian entrants are eligible for free catch-up vaccines on an ongoing basis through the National Immunisation Program (NIP).
- ✓ Providing a nationally consistent catch-up schedule enables newly arrived refugees and other humanitarian entrants free access to recommended vaccines.



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Vaccine	Doses required*	Minimum interval between dose 1 and 2	Minimum interval between dose 2 and 3
Diphtheria, tetanus and pertussis	3 doses <sup>†</sup>	4 weeks	4 weeks
Poliomyelitis	3 doses	4 weeks	4 weeks
Measles, mumps and rubella	2 doses	4 weeks	Not required
Hepatitis B - Aged ≥20 years	3 adult doses	1 month	3 months <sup>§</sup>
Varicella <sup>#**</sup>	2 doses if aged ≥14 years	4 weeks	Not required

\* This column outlines the number of vaccine doses required for a person who has not previously received any vaccine doses for that antigen. To determine how many further doses are required for a person who has received previous vaccine doses, the number of previous doses should generally be deducted from the number in this column.

<sup>†</sup> If a person ≥10 years of age has not received the number of pertussis vaccine doses recommended prior to 10 years of age, they only require 1 dose to be considered up-to-date (irrespective of the number of previous doses of pertussis-containing vaccine they received prior to 10 years of age). A single booster dose of pertussis-containing vaccine is routinely recommended for all adolescents, optimally delivered between 11 and 13 years of age (refer to 4.12 *Pertussis*). Given that dT is not funded under the NIP, up to 3 doses of dTpa may be used.

<sup>^</sup> Note the age groups overlap and this is an either/or, not both.

<sup>§</sup> For hepatitis B vaccine, the minimum interval between dose 1 and dose 3 is 4 months (refer to 4.5 *Hepatitis B*).

<sup>#</sup> Varicella vaccine is recommended for all non-immune persons. Children who have an uncertain clinical history or no documentation of age-appropriate varicella vaccination should be considered susceptible and offered vaccination unless confident clinical diagnosis of prior natural infection is made. All persons aged ≥14 years should receive 2 doses (refer also to 4.22 *Varicella*).

<sup>\*\*</sup> While MMRV is suitable to provide varicella vaccination in children aged <14 years, this vaccine is not recommended for use in persons ≥14 years of age (refer also to 4.22 *Varicella*).

Please take note of the footnotes!!!



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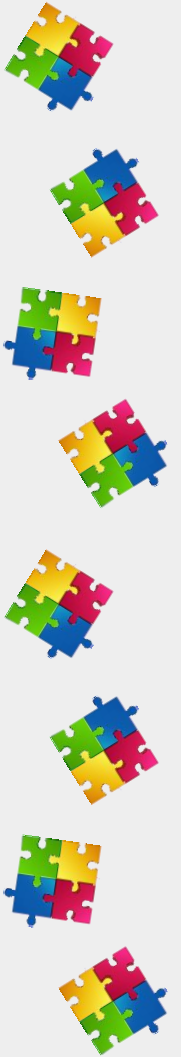


**Table. Catch-up schedule for people  $\geq 10$  years of age (for vaccines recommended on a population level)**

Antigen	Doses needed	Minimum interval between doses	Notes
Diphtheria and tetanus	3 doses	<ul style="list-style-type: none"><li>• Between doses 1 and 2: 4 weeks</li><li>• Between doses 2 and 3: 4 weeks</li></ul>	<ul style="list-style-type: none"><li>• People should receive 1 of the doses as <u>dTpa</u>-containing vaccine and complete the course with <u>dT</u>. This dose would also provide the catch-up dose for pertussis.</li><li>• If <u>dT</u> is not available, use <u>dTpa</u> or <u>dTpa-IPV</u> for all 3 primary doses.</li></ul>
Pertussis	1 dose	<ul style="list-style-type: none"><li>• Not required</li></ul>	<ul style="list-style-type: none"><li>• People <math>\geq 10</math> years of age who did not receive all the pertussis vaccine doses recommended before the age of 10 years only need 1 dose to be considered up to date. This is regardless of the number of previous doses they received before the age of 10 years.</li><li>• A booster dose of pertussis-containing vaccine is routinely recommended for all adolescents aged 11–13 years. Take this into account when planning catch-up for pertussis.</li></ul>

# Resources for other scenarios

- Bone marrow transplant
- Splenectomy
- Preterm infants
- Post immunoglobulin
- Post chemo
- Travel
- Occupation



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## Contents

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[Vaccination procedures](#)

[Catch-up vaccination](#)

[Vaccination for special risk groups](#)

[Vaccine preventable diseases](#)



## In this section

[Vaccination for Aboriginal and Torres Strait Islander people](#)

[Vaccination for international travellers](#)

[Vaccination for migrants, refugees and people seeking asylum in Australia](#)

[Vaccination for people who are immunocompromised](#)

[Vaccination for women who are planning pregnancy, pregnant or breastfeeding](#)

[Vaccination for preterm infants](#)

[Vaccination for people who have had an adverse event following immunisation](#)

[Vaccination for people who have recently received normal human immunoglobulin and other blood products](#)

[Vaccination for people with bleeding disorders](#)

[Vaccination before or after anaesthesia or surgery](#)

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# Welcome to Spleen Australia

a clinical service and registry for people with a non-functioning spleen



Spleen Australia

HOME

WELCOME

FAQ

FORMS AND INFO

REGISTRATION

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HOME

WELCOME

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## What are the current recommendations?

### 1. Education of patient

- a. to recognise an ensuing bacterial infection and the importance of seeking medical review
- b. to know what strategies are available to reduce the occurrence of severe infections

### 2. Immunisations against specific bacterial infections

### 3. Antibiotics as directed by your doctor

See [here](#) for **medical recommendations for adults**

See [here](#) for **medical recommendations for children**

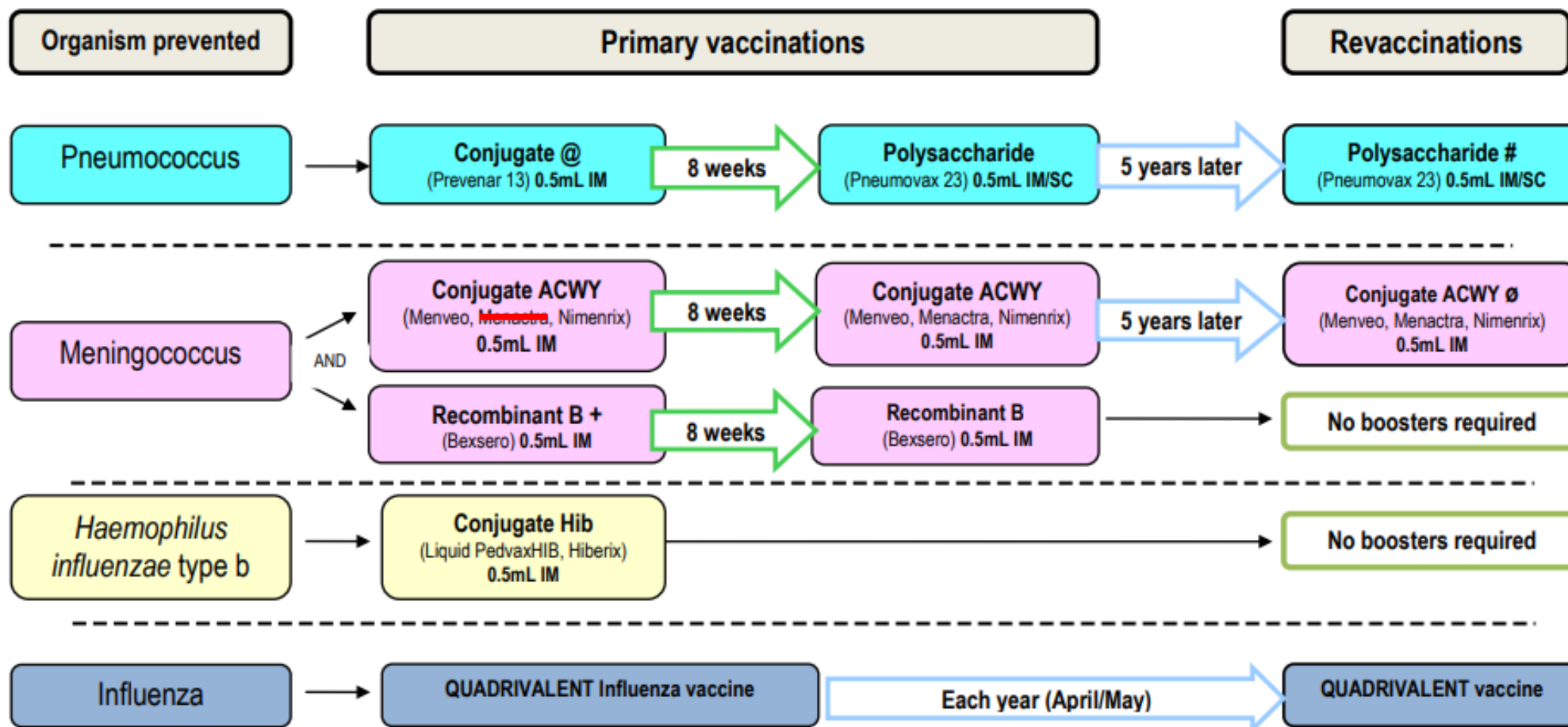
AlfredHealth



[spleen.org.au](http://spleen.org.au)



**Give 1st dose 7 – 14 days prior to elective splenectomy or at least 7 days after emergency splenectomy**  
Verbal consent should be obtained prior to administration of vaccines



For more information on  
@, #, Ø and + please refer to  
page 3 of this document

Vaccine Abbreviations		
Vaccine Brand name	Type of vaccine	Abbreviation
Synflorix	10 valent pneumococcal conjugate vaccine	10vPCV
Prevenar 7 or 13	7 or 13 valent pneumococcal conjugate vaccine	7vPCV or 13vPCV
Pneumovax 23	23 valent pneumococcal polysaccharide vaccine	23vPPV
Menveo or Menactra or Nimenrix	(Conjugate ACWY) Quadrivalent meningococcal conjugate vaccine	4vMenCV
Menjugate or NaisVac-C or Meningitec	Meningococcal C conjugate vaccine	MenCCV
Mencevax or Menomune	(Polysaccharide ACWY) Quadrivalent meningococcal polysaccharide vaccine	4vMenPV
Bexsero	Meningococcal B recombinant vaccine	MenBV

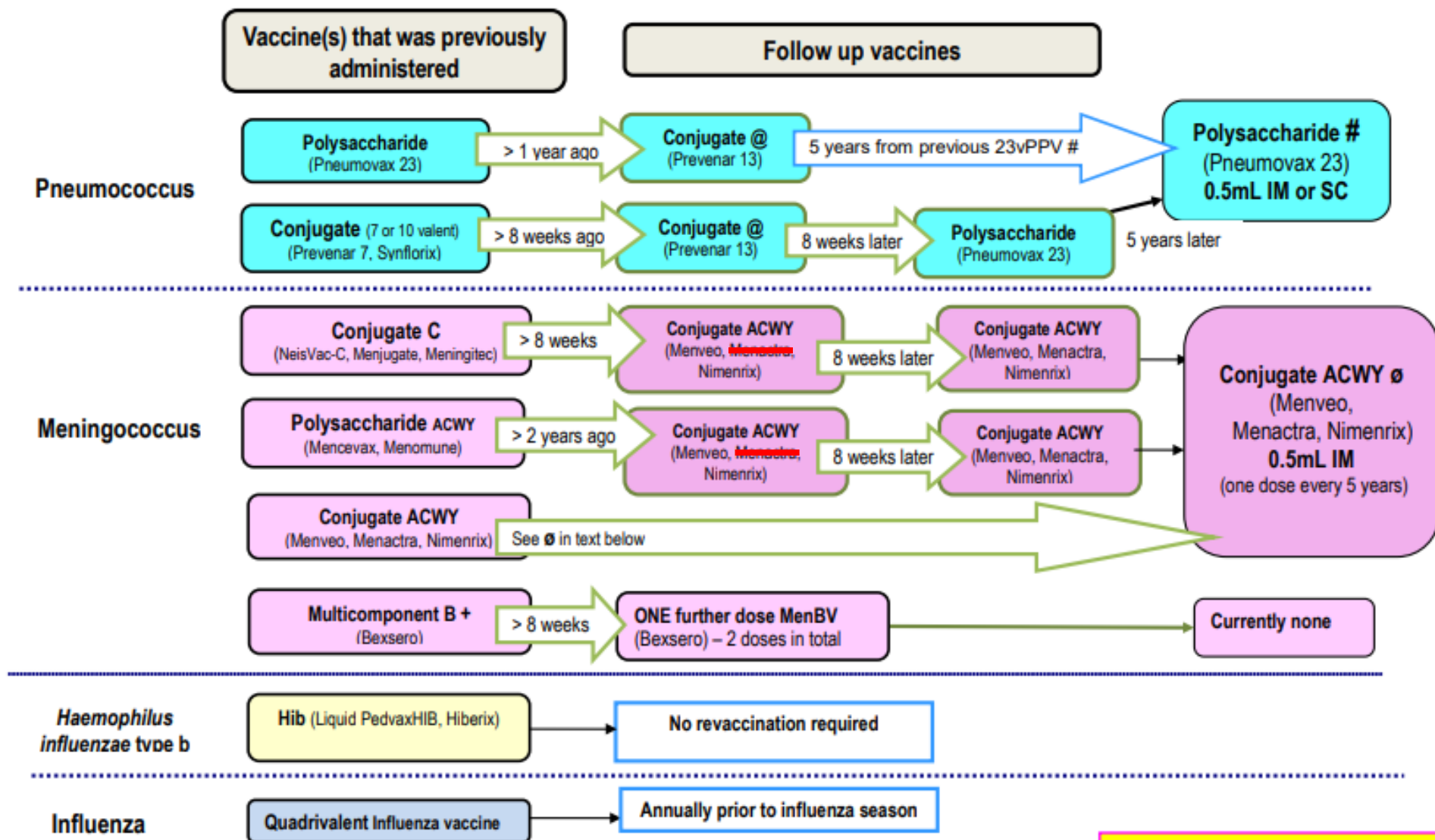




# This table is for patients who have had one or more previous “spleen vaccines”

Give 1st dose 7 – 14 days prior to elective splenectomy or at least 7 days after emergency splenectomy

Verbal consent should be obtained prior to administration of vaccines

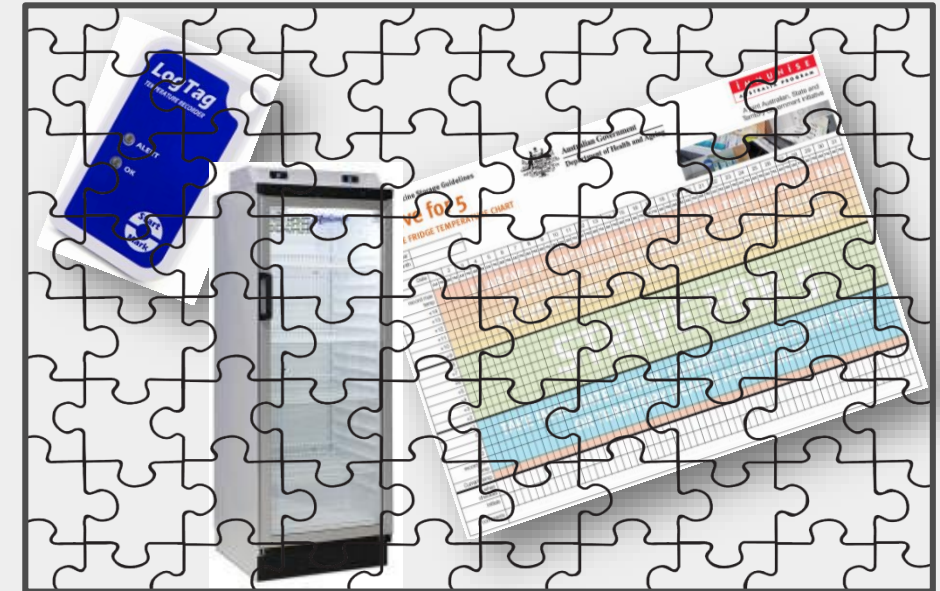


@, #, ⓪, + please see refer to page 3



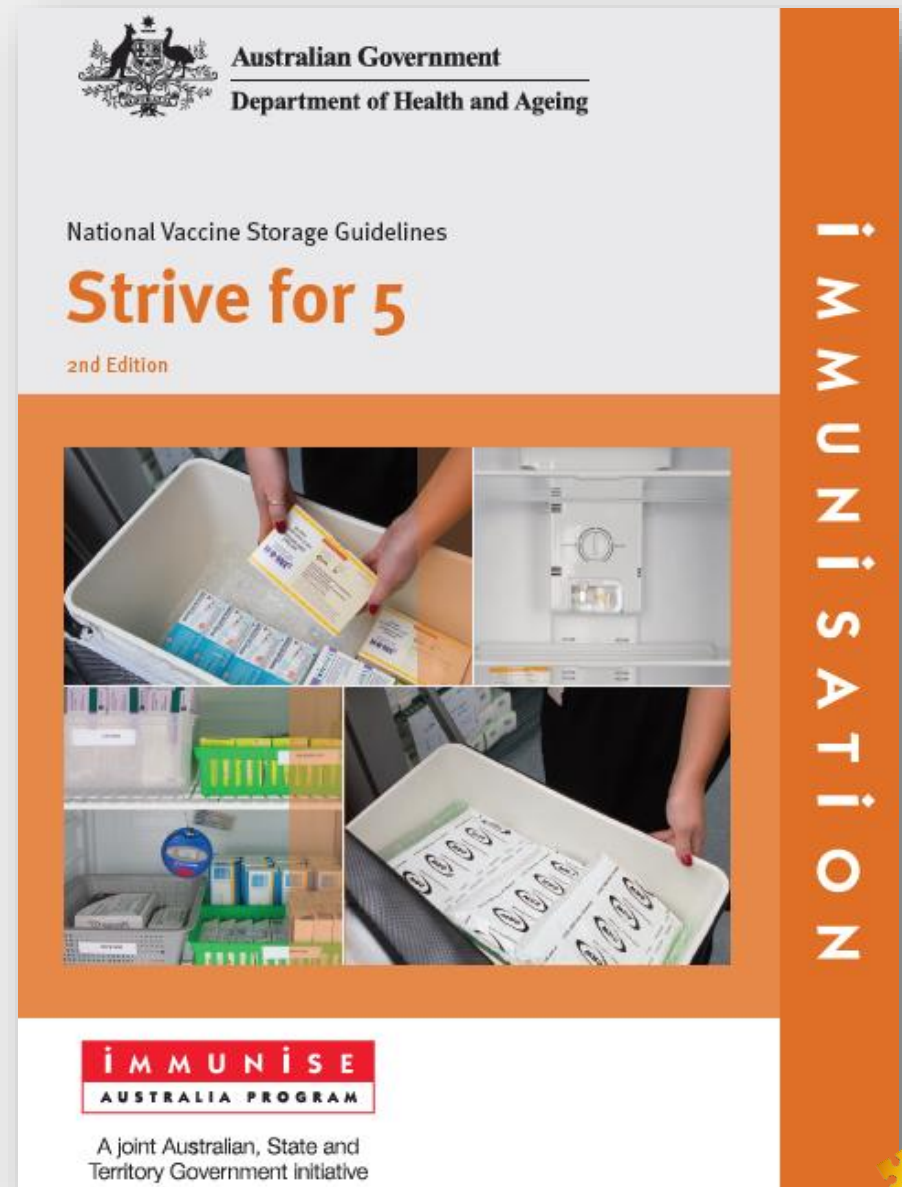
# The Cold Chain Puzzle

- What is the cold chain?
- What you already know...
- What is a data logger?
- What does the data look like?
- When it's not a Cold Chain Breach (CCB)
- What is a CCB?
- How do I manage a cold chain breach?
- Where can I get more information?



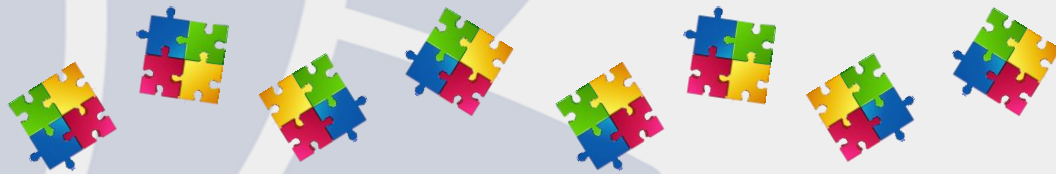
# What is the 'cold chain'?

- Referring to the ideal temperature range of +2°C and +8°C for vaccines
- Have you completed the module? Vaccine Storage and Cold Chain Management
- This is **HIGHLY** recommended for ALL staff who deal with vaccines (including those who receive the vaccines from the delivery person!)
- National Vaccine Storage Guidelines: Strive for 5 2<sup>nd</sup> ed. (currently in the process of being updated - next ed. will be released next year)



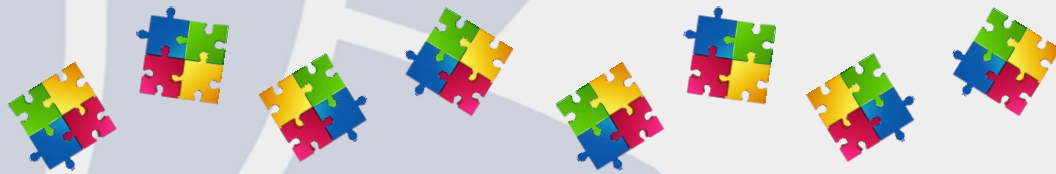
# What you already know...

- Vaccines **MUST** be stored in a purpose-built refrigerator
- More than one person needs to be aware of cold chain management (but nominate a Vaccine Storage/Cold Chain leader)
- Temperatures must be checked, recorded and reset twice a day
  - Every day the facility is open
  - This ensures that any breaches are picked up in a timely fashion
- Graph the current, minimum, maximum temperatures on a temperature chart



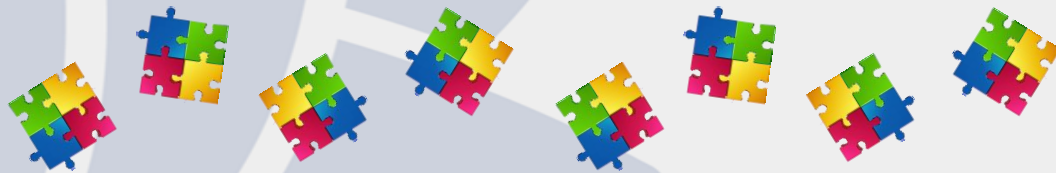
# What you already know...

- Have policies & procedures for vaccine storage
- **KNOW YOUR FRIDGE**
  - Different brands of fridges have different methods of checking and resetting their thermometers
  - Some have 2 temperature screens, others have an inbuilt data logger
  - Read the fridge manual (most can be downloaded from the internet)
  - Accidental breaches can occur if you push the wrong button!!



# What is a data logger?

- Data loggers are small memory cards that measure temperatures at pre-set time intervals and record the results over a specified period of time
- Different shapes and sizes but all must be connected to a computer program to download
- Then able to view the data as well as detailed setting capability
  - Once downloaded, can view data and adjust settings
  - Some data can be read over the internet







# What is a data logger?

- They should be set to record the temperature of the fridge every 10 minutes
- Download needs to be performed weekly and data reviewed
- Download if CCB suspected or odd min/max readings, or in the case of any uncertainty - it's OK to download more often and report sooner than wait for the end of the week!

**Remember...**

Set at 5-10 mins intervals then  
download & save weekly!





➤ All fridges that have vaccines stored in them **MUST** be monitored by a data logger



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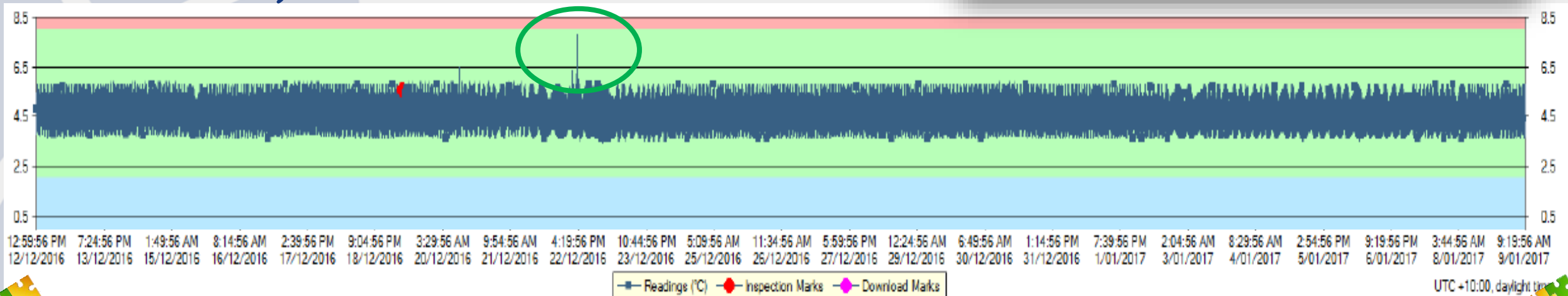
# What do they look like?



# Stable data

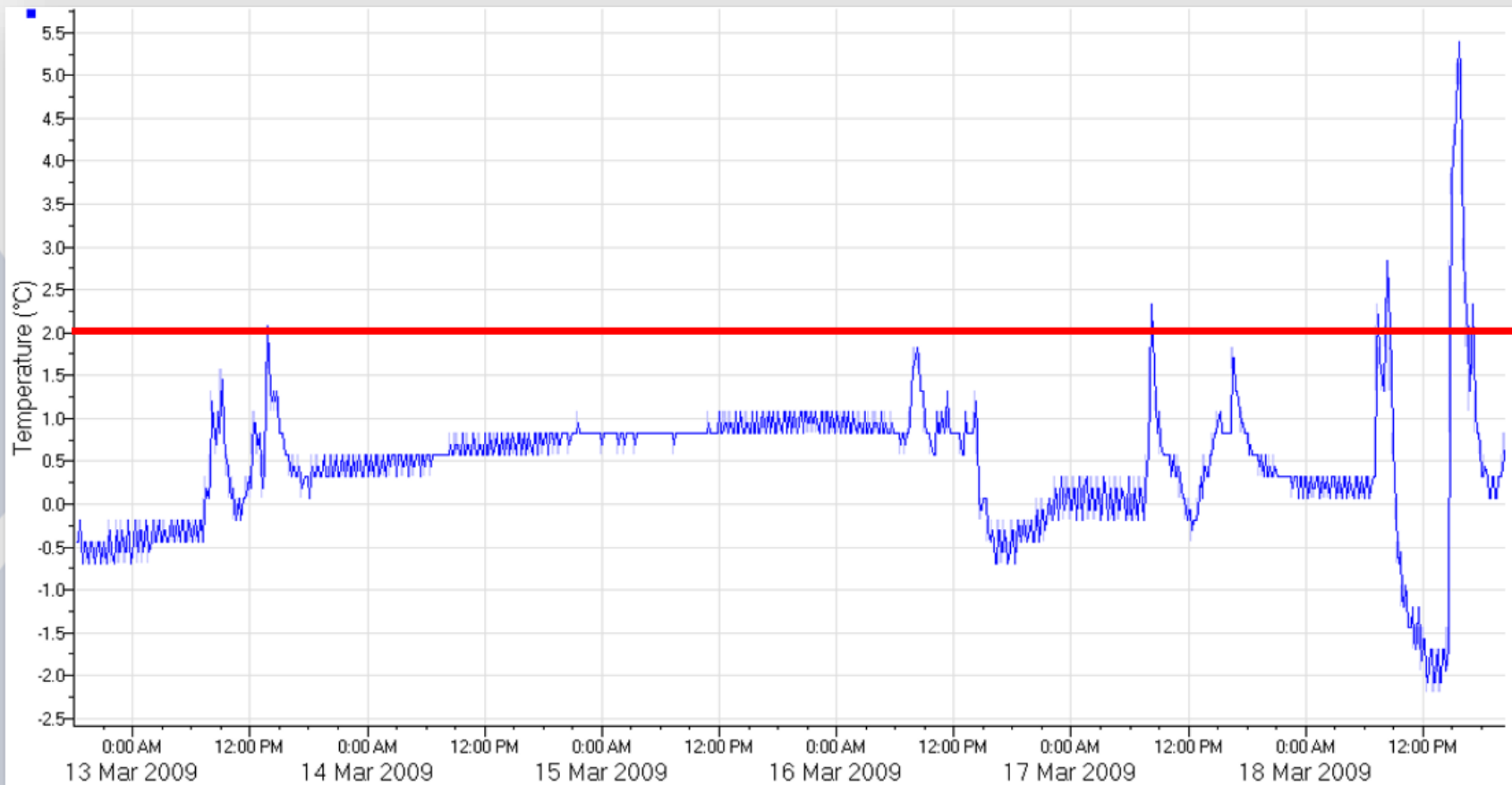
- Example of stable fridge temps →
  - Between +2°C and +8°C
- Data is presented in a graph (below) and line listing (right) which shows the individual readings
- They have a storage limit (i.e. they cannot record forever without being downloaded and reset)

Index	Date	Time	Readings °C	Type
46	12/12/2016	4:44:56 PM	5.6	
47	12/12/2016	4:49:56 PM	3.7	
48	12/12/2016	4:54:56 PM	5.0	
49	12/12/2016	4:59:56 PM	5.3	
50	12/12/2016	5:04:56 PM	3.7	
51	12/12/2016	5:09:56 PM	5.3	
52	12/12/2016	5:14:56 PM	4.9	
53	12/12/2016	5:19:56 PM	4.0	
54	12/12/2016	5:24:56 PM	5.5	
55	12/12/2016	5:29:56 PM	4.3	
56	12/12/2016	5:34:56 PM	4.2	
57	12/12/2016	5:39:56 PM	5.8	
58	12/12/2016	5:44:56 PM	3.9	
59	12/12/2016	5:49:56 PM	4.5	
60	12/12/2016	5:54:56 PM	5.8	
61	12/12/2016	5:59:56 PM	3.6	
62	12/12/2016	6:04:56 PM	4.9	



# Unstable data

- Example of unstable fridge temps →
  - Fluctuating from  $-0.1^{\circ}\text{C}$  to  $+11.3^{\circ}\text{C}$
- ? Fridge malfunction



Index	Date	Time	Elapsed Time	Readings (°C)
81	15/11/2016	12:44:59 AM	02:40:00	11.3
82	15/11/2016	12:46:59 AM	02:42:00	8.7
83	15/11/2016	12:48:59 AM	02:44:00	6.7
84	15/11/2016	12:50:59 AM	02:46:00	5.2
85	15/11/2016	12:52:59 AM	02:48:00	4.0
86	15/11/2016	12:54:59 AM	02:50:00	3.1
87	15/11/2016	12:56:59 AM	02:52:00	2.5
88	15/11/2016	12:58:59 AM	02:54:00	1.9
89	15/11/2016	1:00:59 AM	02:56:00	1.5
90	15/11/2016	1:02:59 AM	02:58:00	1.2
91	15/11/2016	1:04:59 AM	03:00:00	0.9
92	15/11/2016	1:06:59 AM	03:02:00	0.7
93	15/11/2016	1:08:59 AM	03:04:00	0.8
94	15/11/2016	1:10:59 AM	03:06:00	0.9
95	15/11/2016	1:12:59 AM	03:08:00	0.8
96	15/11/2016	1:14:59 AM	03:10:00	0.7
97	15/11/2016	1:16:59 AM	03:12:00	0.7
98	15/11/2016	1:18:59 AM	03:14:00	0.6
99	15/11/2016	1:20:59 AM	03:16:00	0.6
100	15/11/2016	1:22:59 AM	03:18:00	0.5
101	15/11/2016	1:24:59 AM	03:20:00	0.4
102	15/11/2016	1:26:59 AM	03:22:00	0.4
103	15/11/2016	1:28:59 AM	03:24:00	0.3
104	15/11/2016	1:30:59 AM	03:26:00	0.3
105	15/11/2016	1:32:59 AM	03:28:00	0.2
106	15/11/2016	1:34:59 AM	03:30:00	0.2
107	15/11/2016	1:36:59 AM	03:32:00	0.2
108	15/11/2016	1:38:59 AM	03:34:00	0.2
109	15/11/2016	1:40:59 AM	03:36:00	0.1
110	15/11/2016	1:42:59 AM	03:38:00	0.1
111	15/11/2016	1:44:59 AM	03:40:00	0.1
112	15/11/2016	1:46:59 AM	03:42:00	0.1
113	15/11/2016	1:48:59 AM	03:44:00	0.0
114	15/11/2016	1:50:59 AM	03:46:00	0.0
115	15/11/2016	1:52:59 AM	03:48:00	0.0
116	15/11/2016	1:54:59 AM	03:50:00	0.0
117	15/11/2016	1:56:59 AM	03:52:00	-0.1
118	15/11/2016	1:58:59 AM	03:54:00	-0.1
119	15/11/2016	2:00:59 AM	03:56:00	-0.1
120	15/11/2016	2:02:59 AM	03:58:00	-0.1



# When it's NOT a Cold Chain Breach (CCB)

- Fluctuations up to  $+12^{\circ}\text{C}$  for  $<15$  mins (such as when restocking) are acceptable and do not affect vaccines
- Data loggers can help save vaccines by providing the frequent temperatures that can exclude a CCB (and therefore does not need reporting!)
- Vaccines can be very expensive

## Remember...

Up to  $+12^{\circ}\text{C}$  for 15mins is OK  
More than that, or *less than*  $+2^{\circ}\text{C}$ ...  
call PHU straight-away!





# What IS a CCB?

- $\leq +2^{\circ}\text{C}$  can “freeze” the vaccines (they may not look frozen) and temperatures over  $+8^{\circ}\text{C}$  for  $>15$  mins can be just as damaging
- Action **MUST** be taken immediately if you suspect or discover that the temperatures have been out of range in order to avoid patients being given an ineffective vaccine
- New thermostability data available since 2017 - used by PHU
- Report temperature breaches to the Public Health Unit and wait for advice before discarding vaccines





# Reasons for Cold Chain Failures

- Refrigerator malfunction - ensure your fridge is serviced annually
- Power outage (planned or unplanned)
- Human error
  - Fridge door left ajar - chock front feet up to ensure door falls and stays closed
  - Fridge door held open too long - label baskets clearly or have a 'vaccine placement map' on the door
  - Pushing the wrong button and turning off the fridge by accident
  - Leaving vaccines out on delivery
  - Not closing door frequently during stock rotation to keep fridge temp stable
- Unknown



# Breach or no breach???

## Scenario 1

- Fridge accidentally turned off
- Max temp on data logger +15°C for 12mins
- **BREACH!!** Report to PHU...

## Scenario 2

- Power failure for 40 mins
- Vaccines moved from fridge to monitored portable fridge
- Data logger showed +9°C for 10mins
- No breach



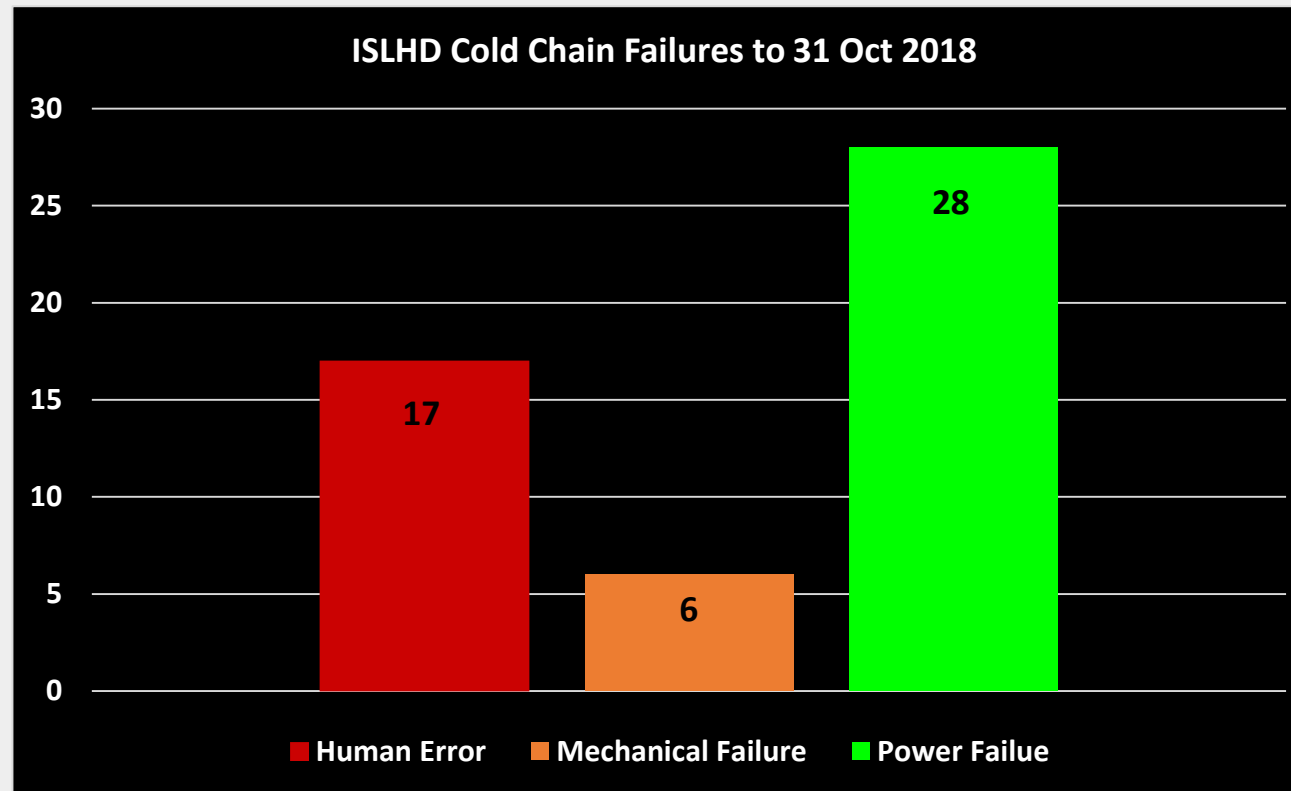
# Breach or no breach???

## Scenario 3

- Mechanical issue
- Max temp on data logger +9.5°C for 10mins on 3 separate occasions
- No breach

## Scenario 4

- Fridge door left ajar overnight
- Top temp on data logger +11°C for 8 hours
- **BREACH!!** Report to PHU...



➤ Human errors - *avoidable*

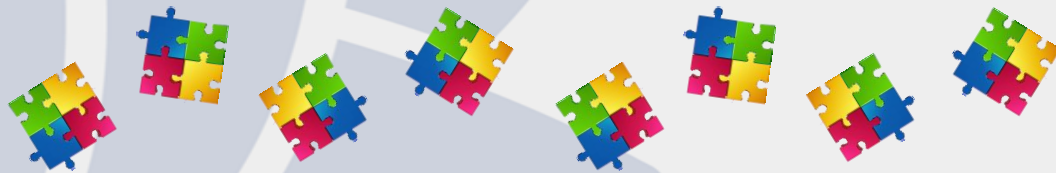
- Fridge turned off accidentally x 2
- Door left ajar x 9
- Vaccines placed in unmonitored fridge x 2
- Vaccines left out overnight after delivery x 1

➤ Total cost to June '18 = \$74,760

- Human errors = \$9724

# What to do if you suspect a CCB?

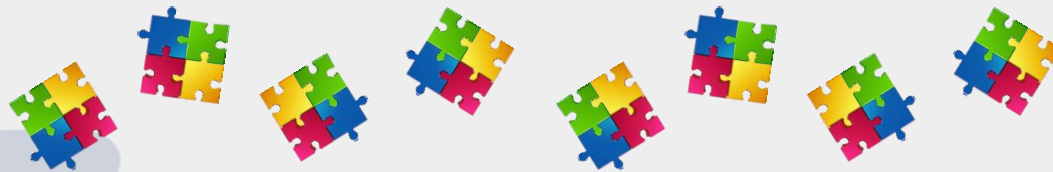
- Deal with the vaccines first
  - Isolate in fridge if temperature has stabilised i.e. power restored
  - Move to a monitored esky
- Place a sign on the fridge '*Do not use*'
- Download the data from your data-logger (if using) and print or save it for the period of the breach
- Identify suspected or confirmed reason for the breach



# What to do if you suspect a CCB?

- Contact PHU on 4221 6700 or 1300 066 055 as soon as possible (in business hours)
- The PHU will provide advice on what to do with the vaccines - DO NOT discard any vaccines until you have been advised to

*\*Contact the vaccine manufacturer for advice about private vaccines\**



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# IMMUNISATION PROVIDER COLD CHAIN BREACH REPORTING FORM



Fields marked with an \* are mandatory

## SECTION 1: IMMUNISATION PROVIDER DETAILS

*Facility Name	*Vaccine Account Number
*Address	*Phone / Fax
*Number of GPs in the practice	*Person Reporting the breach

## SECTION 2: DETAILS OF COLD CHAIN BREACH (CCB)

1. *Type of refrigerator	<input type="checkbox"/> Vaccine Specific refrigerator <input type="checkbox"/> Domestic refrigerator	
2. *Date of Breach		
3. *Date CCB identified		
4. *Select the reason for the CCB <i>† Please jump to Section 4 after completing questions 5-10 below.</i>	<input type="checkbox"/> Refrigerator malfunction † (Section 3.1 must also be completed and a current fridge service report provided) <input type="checkbox"/> Power outage (planned/unplanned) † <input type="checkbox"/> Human error † <input type="checkbox"/> Unknown (Section 3 MUST be completed)	
5. *Additional information about the CCB		
6. *Data logger temperature	Min	Max
7. *Duration outside 2° C to 8° C (minutes)		
8. *Is this the first CCB for these vaccines?	<input type="checkbox"/> Yes <input type="checkbox"/> No, what is the date of the previous CCB?	

- Section 1 - practice details
  - Complete missing fields on fax or electronic copy
- Section 2 - event details
  - Practice to complete



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## SECTION 3: FRIDGE AND COLD CHAIN MONITORING DETAILS

### 3.1 Refrigerator details

\*Date of refrigerator purchase

\*Date of last refrigerator service

### 3.2 Data logger details

\*Type of data logger ☐ Inbuilt ☐ Portable

\*Date of purchase

\*Date of last service

\*Date of last calibration

### 3.3 Minimum/maximum thermometer details

\*Type of min/max thermometer ☐ Inbuilt ☐ Battery operated

\*Date of purchase

\*Date of last battery change

\*Date of last accuracy check i.e. ice slurry

### 3.4 \*Alternative vaccine storage details

\*Is there an alternative fridge for vaccine storage? ☐ Yes ☐ No

\*Type of alternative fridge used for back up vaccine storage ☐ Vaccine specific refrigerator ☐ Domestic refrigerator

- The PHU may disable your ability to order vaccines until a stable cold chain is able to be demonstrated

## ➤ Section 3

## ➤ Only complete if cause of CCB is:

- Fridge malfunction, or
- Unknown

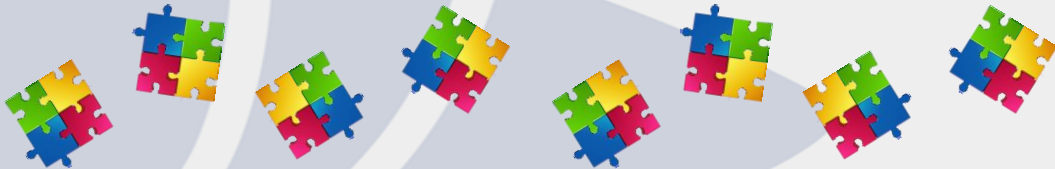
## ➤ Perform audits on the vaccine fridge annually (or more frequently if indicated)



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# What else do we need?

- Section 4
- Count of the vaccines in stock → → →
  - How many doses of govt provided only
- Data logging
  - Graph and line listing of temps required
- Min/max temperature chart/s
- Last fridge service report
  - If available and only if there has been a fridge malfunction



## SECTION 4: VACCINE DETAILS

Vaccines exposed to a second breach should be recorded as follows:

Total count (# doses exposed to second breach), example:

Vaccine	*Count	PHU advice	Vaccine	*Count	PHU advice
MMRII	10 (5)	Discard 5	Infanrix	15 (2)	Retain & label

Vaccine	*Count	PHU advice	Vaccine	*Count	PHU advice
Adacel			I POL		
Adacel polio			Menactra		
Afluria Quad			Menitorix		
Boostrix			MMR II		
Boostrix IPV			Neis-Vac C		
<u>Energix (adult)</u>			Nimenrix		
<u>Energix (paed)</u>			Pneumovax 23		
Infanrix - Hexa			Varivax		
Infanrix IPV			Zostavax		

### Additional advice

Vaccine	*Batch #	*Expiry	*Count	HPNSW/PHU only
Act-HIB				
Quadracel				
Tripacel				



# Where I can I get more information?

- National Vaccine Storage Guidelines: Strive for 5
- Illawarra Shoalhaven PHU Immunisation Team
- NSW Health Website:
  - Immunisation Programs / Immunisation Providers / More Information / Cold Chain
- Cold chain training module for all providers



[SAVE THE DATE  
TO  VACCINATE]

[Home](#) > [Immunisation Programs](#)

## Immunisation programs



### Alerts

- > [NEW - Vaccination by pharmacists](#)
- > [NSW Immunisation Schedule \(1 July 2018\)](#)
- > [2018 Influenza Vaccination, including for children under 5](#)
- > [Childcare vaccination requirements from 1 January 2018](#)
- > [Meningococcal W Vaccination Program](#)



### Immunisation providers

- > [More information](#)
- > [Public Health Units 1300 066 055](#)
- > [Adverse events following immunisation](#)
- > [Shortage of adult hepatitis B vaccine](#)
- > [Vaccine ordering link](#) 
- > [Cold chain training module for all providers](#)
- > [Additional Commonwealth and NSW funded free vaccines](#)




### Immunisation Campaigns

- > [Save the Date to Vaccinate campaign and phone app](#) 
- > [Resource Order Form](#)
- > [Posters and Posters](#)
- > [Get the facts - Immunisation Saves Lives \(Commonwealth\)](#) 



### Aboriginal immunisation

- > [Aboriginal Immunisation Health Care Worker Program](#)
- > [MJA article - Closing the vaccination coverage gap](#) 
- > [Stage 2 Evaluation Report](#)
- > [Stage 1 Evaluation Report](#)
- > [Annualised coverage rates](#) 
- > [Whatchya Gunna Do? video](#)



# More puzzle pieces...



# Immunisation programs



## Alerts

- › [NEW - Vaccination by pharmacists](#)
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- › [Annualised coverage rates](#)
- › [Whatchya Gunna Do? video](#)



## Childhood vaccination

- › [Why vaccinate?](#)
- › [NSW Immunisation Schedule](#)
- › [Child care enrolment](#)
- › [Primary & secondary school vaccination requirements from 1 April 2018](#)
- › [Vaccination coverage](#)
- › [Protecting Your Family. \(Bengali video by Sydney Local Health District\)](#)
- › [Myths & Realities](#)
- › [Factsheets and resources](#)



## Adolescent vaccination (school based)

- › [NEW - HPV vaccination changes](#)
- › [Which vaccines are offered?](#)
- › [Withdrawal of consent](#)
- › [Consent materials, including translations](#)
- › [Managing school vaccine reactions](#)
- › [Vaccination coverage](#)
- › [Background to the NSW School Vaccination Program](#)
- › [Secondary school enrolment](#)



## Adult vaccination

- › [Measles, Mumps & Rubella](#)
- › [Whooping cough \(pertussis\)](#)
- › [Pneumococcal disease](#)
- › [Influenza](#)
- › [Yellow fever](#)
- › [Q fever](#)
- › [Shingles](#)
- › [Vaccine Administration Record Card for Adults](#)



## Health care worker vaccination

- › [Revised Policy Directive](#)
- › [Frequently Asked Questions \(FAQ\)](#)
- › [Key points about the policy. \(Powerpoint presentation\)](#)
- › [Countries with a high incidence of TB](#)





## Your PHN Immunisation Support community

Welcome to the PHN Immunisation Support Program website. We aim to create a community of practice by providing the latest news, useful resources and enabling shared knowledge between PHNs and other key stakeholders.

[> About the program](#)



### Latest news

- [> Best Practice Software - advice regarding immunisation schedule changes 1 July 2018](#)
- [> Updated NCIRS fact sheets and immunisation schedule tables](#)
- [> ZedMed practice software upgrade incorporating changes to the immunisation schedule - July 2018](#)

### Latest resources

- [> Northern Territory - catch up vaccines for all ages and additional vaccines due to increased medical risk \(additional notes\) - July 2018](#)
- [> Northern Territory pneumococcal vaccination and revaccination schedule - July 2018](#)
- [> Northern Territory adult and special groups vaccination schedule - July 2018](#)

### DIRECTORY

- [> PHN contacts](#)
- [> Key stakeholders](#)
- [> Program team](#)



[Home](#) / [Resource & education library](#)

## Resource & education library

Find resources that you can use in your day-to-day work.  
[Do you have material you'd like to share here?](#)

Enter keyword/s



Apply filters

### Topic


- ☐ All
- ☐ Aboriginal & Torres Strait Islanders
- ☐ AIR & other registers
- ☐ Clinical information
- ☒ Cold chain
- ☐ Education

SORT BY

**Latest**

Most viewed

Most downloaded

 **Grid**

 List



21 June 2018 | PDF

NEW

**Maintenance of digital  
min/max thermometers  
and slurry test instructions**



21 June 2018 | Video

NEW

**Vaccine and cold chain  
management webinar**



19 June 2018 | Video

NEW

**HETI: Vaccine storage and  
cold chain management  
module**



[Home](#) / [Resource library](#) / AIR education modules

Print

Email

## AIR education modules

### Downloadable files

#### AIR Education Modules

Uploaded: 3 July 2018

Created by: Department of Human Services

Download

The AIR education package are now available. There are 5 modules available:

- Registering and requesting access to the AIR site
- Accessing the AIR for the first time
- Submitting information to the AIR
- Overseas immunisations
- Immunisation medical exemptions

The modules include information for:

- Medical practitioners with a Medicare provider number

#### STATE

National

#### FILE FORMAT

Website

#### TOPIC

AIR & other registers

#### AUDIENCE

Immunisation providers, PHN staff, Practice nurses, Practice staff

#### RESOURCE TYPE

Presentation

#### PREPARATION LEVEL

Ready to use

#### DATE

2018



3. **REGISTER NOW: NCIRS Seminar/Webinar: 21 November 2018 – Australian Immunisation Register & Handbook Update**



The next NCIRS seminar/webinar will provide an update on the Australian Immunisation Register (AIR) and The Australian Immunisation Handbook.

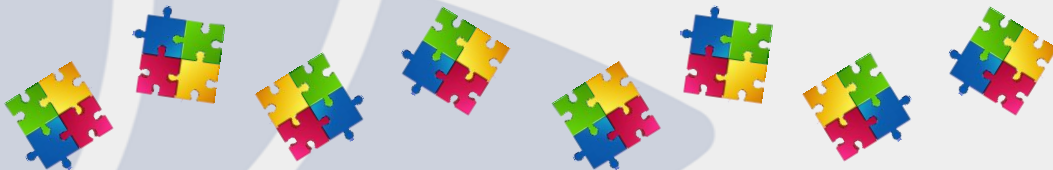
**Time:** Wednesday 21 November 2018, 1.00 pm – 2.00 pm

**Location:** Kids Research Seminar Room, 178 Hawkesbury Road, Westmead, NSW

The session will also be available via Zoom webinar. **Webinar registrations are limited to 500 places. Hurry places filling fast.**

[More information & register here...](#)

Webinar registrations are limited to 500 places - will fill fast!!!



**Health**  
Illawarra Shoalhaven  
Local Health District



# SKAI – Sharing Knowledge About Immunisation: Resources for parents

A series of five Q&A fact sheets addressing the five concerns most commonly expressed by Australian parents are available from the **Immunise Australia** website.

- How are vaccines shown to be safe?
- How do vaccines affect immunity?
- Why is the schedule the way it is?
- What about autism?
- What is in vaccines?

[www.ncirs.edu.au](http://www.ncirs.edu.au)





# How do vaccines affect immunity?

Vaccines strengthen natural immunity

## How do vaccines work?

Vaccines train a baby's immune system to quickly recognise and clear out germs (bacteria and viruses) that can cause serious illnesses. Vaccines strengthen a baby's immune system a bit like exercise strengthens muscles.

# How are vaccines shown to be safe?

Vaccines are carefully tested

## How are vaccines tested?

Safety research and testing is an essential part of developing vaccines. Vaccine safety is first tested on animals. Then, if a vaccine is found to be safe in animal trials, it is evaluated in humans in three phases of clinical trials.

**Phase 1 trials:** The new vaccine is given to a small number (25–50) of healthy adults with the primary aim of assessing safety.

**Phase 2 trials:** If the new vaccine is found to be safe in Phase 1, it is then given to hundreds of people to determine: how effectively it stimulates immune responses; how much or how many doses need to be given in order to protect against the target disease; and whether there are any side effects.

**Phase 3 trials:** If the vaccine is found to be effective and safe, it is then given to many thousands of people to test whether it protects large populations from the target disease and check if there are any uncommon or serious side effects. Every vaccine given to Australian children must pass all of these phases before it is registered for use by the Therapeutic Goods Administration (TGA).

If you would like more information, you can call the  
**Immunise Australia Information Line**  
on 1800 671 811

# Why is the schedule the way it is?

Vaccines are timed to protect children

## Why do children receive so many vaccines in the first two years?

The timing of each dose of every vaccine given to babies and children is carefully chosen. It takes many years of careful research to work out the right time to give each vaccine. Independent experts gather information to help them make their recommendations. They consider which diseases Australian children are likely to be exposed to; how serious the diseases can be for children at different ages; which vaccines are safest and most effective; how many doses are needed to provide full protection; and the age at which the vaccines will give the best protection.

## What happens if I delay or leave out certain vaccines?

Delaying vaccination is not recommended. When vaccination is delayed or spaced out, children are unprotected for longer than they need to be and often at an age when disease is most common or most serious. Spacing out vaccines means that a child will need to have more vaccination appointments. Researchers have found that visiting the doctor for one needle is just as stressful for children as visiting the doctor for two needles at once.



If you would like more information, you can call the  
**Immunise Australia Information Line**  
on 1800 671 811

# What about autism?

Many large studies have found vaccines do not cause autism

## How do we know?

A number of high quality large numbers of vaccinees over many years. The largest study was conducted in Denmark and found that the risk of developing autism was no different for children who had received all their vaccines compared to children who had not. This study was combined with other medical information and found that living all around the world, vaccination could not be linked to autism.

# What is in vaccines?

All ingredients in vaccines are tested for safety

## What causes autism?

It is not known exactly what causes autism. Some people believe that vaccines are the cause, but many studies have found that this is not the case. Some people who want to believe this are wrong. Children with autism are born with it. It is not caused by anything that happens after birth.

## Antigens

The most important part of a vaccine is the antigen. Other ingredients include adjuvants, preservatives, stabilisers and diluents. Some of these are added to protect and support the antigen. Tiny traces of substances used in the process of producing antigens can also be detected in vaccines (residues).

Antigens train the immune system to clear disease-causing germs (bacteria or viruses) from the body quickly, before they can cause serious illnesses. Most antigens are fragments of germs. Some antigens are weakened or killed germs or substances made by germs, called toxins. Combination vaccines, given in a single needle, contain more than one antigen, which reduces the number of needles children need to be fully protected.

## Adjuvants

Adjuvants help strengthen the immune system's response to the antigens in vaccines. In some cases this means fewer needles are needed for a child to be fully protected against a disease. The most commonly used adjuvants are salts called aluminium hydroxide, aluminium sulphate and potassium aluminium sulphate. They are commonly referred to as 'alum'. The amount of aluminium contained in vaccines is tiny compared with the amount found naturally in other things children consume, such as breastmilk or formula milk.

If you would like more information, you can call the  
**Immunise Australia Information Line**  
on 1800 671 811



[campaigns.health.gov.au/immunisationfacts](https://campaigns.health.gov.au/immunisationfacts)



Australian Government  
Department of Health



**GET THE FACTS** Immunisation saves lives.

National Immunisation Program info line **1800 671 811**

[Home](#)   [The facts](#)   [Why immunise my child?](#)   [How do I immunise my child?](#)   [Resources](#)

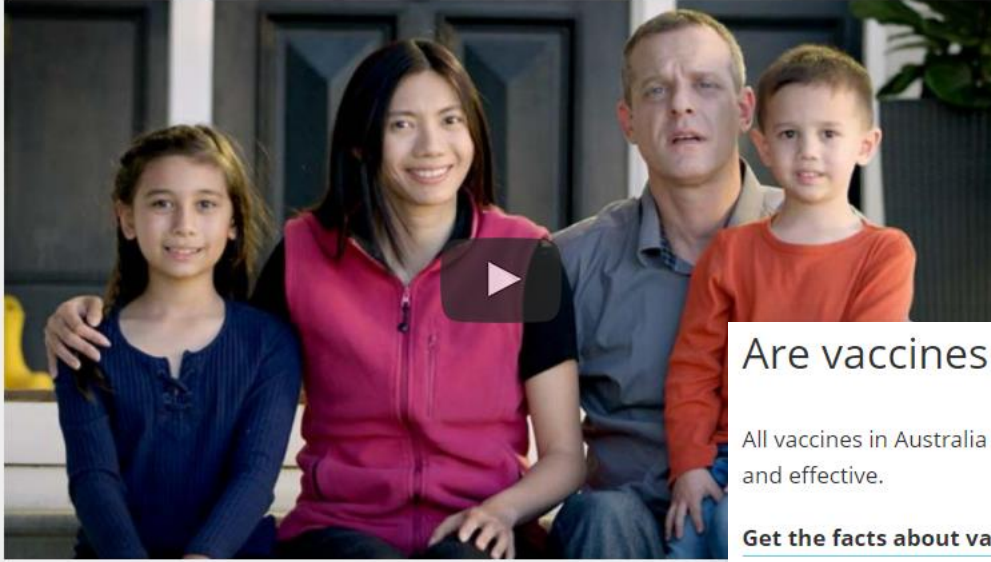


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Local Health District





Get the facts – help protect your community



By getting your child vaccinated, you're not only protecting them, you're also protecting other children too. Make sure you vaccinate your child on time.

### Are vaccines safe?

All vaccines in Australia are strictly tested to make sure they are both safe and effective.

[Get the facts about vaccine safety >](#)



### How do I know if my child's immunisations are up to date?

[Check what your child needs >](#)



**Health**  
Illawarra Shoalhaven  
Local Health District





Why

When

Where

Myths & Realities

Protect Your Community

Brochure



**Immunisation protects the community  
against vaccine-preventable diseases.**

Each vaccine plays an important role, so timely vaccination is the best way to protect your child. This website offers parents access to

DOWNLOAD THE APP





## NSW Immunisation Resource Order Form

Please complete this order form and send it to the Better Health Centre:

Email: [bhc@nscchhs.health.nsw.gov.au](mailto:bhc@nscchhs.health.nsw.gov.au)

Fax: 02 9887 5879

NB: There are no costs related to these resources.

Item	Layout	Collateral title	SHPN	Quantity
<b>Pertussis (whooping cough) resources</b> (more information at <a href="http://www.health.nsw.gov.au/protectnewborns">www.health.nsw.gov.au/protectnewborns</a> )				
Poster (Generic)	A3	Whooping cough is about	(CHP) 150133	
Brochure (Generic)	DL	Protection and vaccination from preconception to birth	(CHP) 150131	
A5 Pad	A5	Did you know? (patient information sheet)	(CHP) 150135	
Fridge sticker	130mm	Pertussis vaccination in pregnancy	(CHP) 150134	
Poster (Aboriginal)	A3	Whooping cough is about (Aboriginal)	(CHP) 150138	
Brochure (Aboriginal)	DL	Important vaccines for pregnancy (Aboriginal)	(CHP) 150139	
Poster (Whooping Cough)	A3	Whooping cough: identify, protect, prevent poster	(CHP) 150328	
Brochure (Whooping Cough)	DL	Whooping cough: identify, protect, prevent brochure	(CHP) 150329	
<b>Influenza Vaccination in Pregnancy (English)</b>				
Brochure	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu)	(CHP) 140189	
<b>Influenza Vaccination in Pregnancy (Translated)</b>				
Brochure (Arabic)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Arabic	(CHP) 140191	
Brochure (Chinese)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Chinese	(CHP) 140195	
Brochure (Dari)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) Dari	(CHP) 140197	
Brochure (Korean)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Korean	(CHP) 140194	
Brochure (Tamil)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Tamil	(CHP) 140196	
Brochure (Turkish)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Turkish	(CHP) 140192	
Brochure (Vietnamese)	6pp DL	Influenza Vaccination in Pregnancy - Protect you and your baby from influenza (flu) - Vietnamese	(CHP) 140193	
<b>Neonatal Hepatitis B and Vaccination Brochure</b> (translated brochures are available at <a href="http://www.health.nsw.gov.au/immunisation">www.health.nsw.gov.au/immunisation</a> )				
Brochure	6pp DL	Hepatitis B Vaccination - For Your New Baby	(CHP) 130455	

[www.health.nsw.gov.au/immunisation/Documents/immunisation-order-form.pdf](http://www.health.nsw.gov.au/immunisation/Documents/immunisation-order-form.pdf)



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Local Health District

# Following vaccination— what to expect and what to do



## All vaccinations may cause the following reactions:



Mild fever that doesn't last long <38.5°C



Where the needle was given: Sore, red, burning, itching or swelling for 1–2 days and/or small, hard lump for a few weeks



Grizzly, unsettled, unhappy and sleepy



Teenagers/adults and muscle aches

SEE BACK PAGE FOR ADDITIONAL COMMON REACTIONS SPECIFIC TO EACH VACCINE

## What to do at home:



If baby/child is hot don't have too many clothes or blankets on



Breast feed more frequently and/or give extra fluids



Put a cold wet cloth on the injection site if it is sore



For fever give paracetamol as per instructions on the box

## When to seek medical advice:

See your doctor or immunisation provider, or go to hospital if:



Pain and fever are not relieved by paracetamol (eg. Panadol®)



The reactions are bad, not going away or getting worse or if you are worried at all



Any of the reactions below are severe

## How to report an adverse reaction:

Significant events that occur following immunisation should be reported to your doctor or vaccination provider. Alternatively you can report directly to the Therapeutic Goods Administration ([www.tga.com.au](http://www.tga.com.au)) or by phone to a pharmacist from NPS MedicineWise on 1300 134 237.

You can also report adverse events following immunisation to your state or territory health services.

## Rare reactions requiring immediate medical attention

As with any medication, on rare occasions, an individual may experience a severe reaction.

### Anaphylaxis

- A severe allergic reaction which occurs suddenly, usually within 15 minutes, however anaphylaxis can occur within hours of vaccine administration. Early signs of anaphylaxis include: redness and/or itching of the skin, swelling (hives), breathing difficulties, persistent cough, hoarse voice and a sense of distress.

### Intussusception (relates to rotavirus vaccine)

- This is an uncommon form of bowel obstruction where the end of the bowel slides into the next, much like the pieces of a telescope.
- There is a very small risk of this occurring in a baby in the first 10 days after receiving the first dose of rotavirus vaccine, and a very small risk after the second vaccine dose.
- The baby has bouts of crying, looks pale, gets very irritable and has blood or mucus in the stool.

### Seizure

- Some young children (especially aged 1–3 years) are more likely to have a seizure when experiencing a high fever from any source (infection or after a vaccine). The seizure usually lasts a few seconds and very rarely more than 2 minutes.

## Where can I get more information?

Contact your immunisation provider  
Visit [health.gov.au/immunisation](http://health.gov.au/immunisation)  
Contact your state or territory health service

## Practice contact details:

Vaccines given on \_\_\_\_ / \_\_\_\_ / 20\_\_\_\_ Time given: \_\_\_\_\_ (Please wait a minimum of 15 minutes after immunisation)

Indicate injection sites by circling appropriate box: **LA** – Left Arm, **RA** – Right Arm, **LL** – Left Leg, **RL** – Right Leg

### All vaccinations may cause the following reactions:

- Mild fever that doesn't last long <38.5°C
- Where the needle was given: Sore, red, burning, itching or swelling for 1–2 days and/or small, hard lump for a few weeks
- Grizzly, unsettled, unhappy and sleepy
- Teenagers/adults fainting and muscle aches

### Hepatitis B vaccine (HB-Vax® II Paediatric or Engerix® B Paediatric)

- See 'Common reactions'

LL RL LA RA

### Diphtheria, tetanus, whooping cough, hepatitis B, polio, Haemophilus influenzae type b vaccine (Infanrix® hexa)

- See 'Common reactions'

LL RL LA RA

### Pneumococcal vaccine (Prevenar 13®)

- See 'Common reactions'

LL RL LA RA

### Rotavirus vaccine (Rotarix®)

- See 'Common reactions'
- Vaccine virus can be shed in poo, particularly after the first dose. Handwashing is important after every nappy change.
- Intussusception\* —see 'rare reactions'

BY MOUTH

### Meningococcal ACWY vaccine (Nimenrix®)

- See 'Common reactions'

LL RL LA RA

### Measles, mumps, rubella vaccine (MMRI® or Priorix®)

- See 'Common reactions'
- Reactions that may be present 7 to 10 days after vaccination:
  - fever over 39°C
  - rash (not infectious)
  - head cold, runny nose, cough, puffy eyes
  - swelling in the neck /under the chin.

LL RL LA RA

### Hepatitis A vaccine (Vaqta® Paediatric)

- See 'Common reactions'
- Rash

LL RL LA RA

### Haemophilus influenzae type b vaccine (ActHIB®)

- See 'Common reactions'

LL RL LA RA

### Measles, mumps, rubella, chickenpox vaccine (Priorix-Tetra® or ProQuad®)

- See 'Common reactions'
- Reactions that may be present 7 to 10 days after vaccination:
  - fever over 39°C
  - rash (not infectious)
  - head cold, runny nose, cough, puffy eyes
  - swelling in the neck /under the chin.
- Reactions 5–26 days after vaccination:
  - mild chickenpox like rash (may be infectious, seek medical advice).

LL RL LA RA

### Diphtheria, tetanus, whooping cough vaccine Children (Infanrix® or Triptacel®) Adults and adolescents (Boostrix® or Adacel®)

- See 'Common reactions'
- Very rarely, large injection site reactions (>50 mm) including limb swelling may occur (with the 4th or 5th dose of a tetanus-containing vaccine in children). These reactions usually start within 24–72 hours after vaccination, and resolve spontaneously within 3–5 days. If this reaction extends beyond one or both joints, seek medical advice.

LL RL LA RA

### Diphtheria, tetanus, whooping cough, polio vaccine (Infanrix® IPV or Quinrix®)

- See 'Common reactions'
- Large injection site reactions of redness and swelling from the shoulder to the elbow. If this reaction extends beyond one or both joints, seek medical advice.

LA RA

### Pneumococcal vaccine (Pneumovax 23®)

- See 'Common reactions'
- Large injection site reaction with redness and swelling, more common after the second or subsequent dose of this vaccine.

LA RA

### Human papillomavirus (HPV) vaccine (Gardasil®9)

- See 'Common reactions'
- Mild headache
- Mild nausea

LA RA

### Shingles vaccine (Zostavax®)

- See 'Common reactions'

LA RA

### Influenza vaccine

- See 'Common reactions'

LL RL LA RA

## Order this resource

Order ID: IT0258

You can order this resource by contacting National Mailing and Marketing:

- Email - [health@nationalmailing.com.au](mailto:health@nationalmailing.com.au)
- Phone - 02 6269 1080

Quote the order ID number above, the quantity of the resource you wish to order and provide your delivery address.



Health  
Illawarra Shoalhaven  
Local Health District



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Free, confidential counselling is available for residents of Tathra and the region affected by the bushfires.

[FIND OUT MORE >](#)



[www.coordinare.org.au](http://www.coordinare.org.au)



Electronic delivery of BreastScreen results

[Read more >](#)



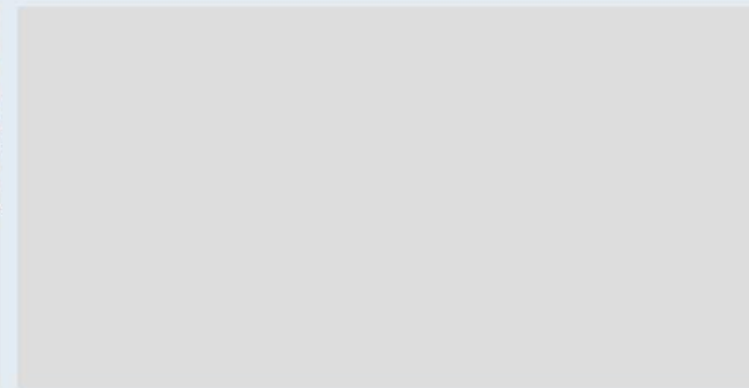
Is your urgency an emergency?

[Read more >](#)



Free suicide prevention training now available!

[Read more >](#)





# GP Nurses Southern NSW – GPNSN ✓

Closed Group · 274 Members



ABOUT DISCUSSION ANNOUNCEMENTS PHOTOS



Write something...



Photo



## Announcements

[SEE ALL \(1\)](#)



**Ros Lyn**

Admin · Sun at 17:00 ·



ISPRN Annual Showcase & Workshop 👍  
A great forum to hear about PHC research  
without being bored 😊

Saturday 2 November 9.1-20pm Newre





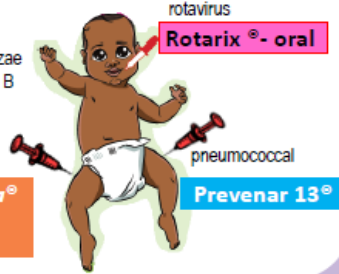
# NSW CHILDHOOD IMMUNISATION SCHEDULE VACCINATION SITES (from 1 July 2018)

## BEFORE YOU BEGIN

- Have vaccines been stored correctly between 2° C & 8° C?
- Where is the anaphylaxis response kit?
- Do you have the correct child and correct vaccines (check AIR)
- Confirm date last vaccines were given, is any catch-up required
- Discuss risks & benefits of vaccines to be given.
- Obtain & document valid consent.
- AFTER VACCINATION**
  - Remain in clinic for 15 mins
  - Advise re. possible side effects eg. handout
  - Advice for managing fever, including use of paracetamol as needed. Fever & rash may occur 5-12 days following live vaccines.

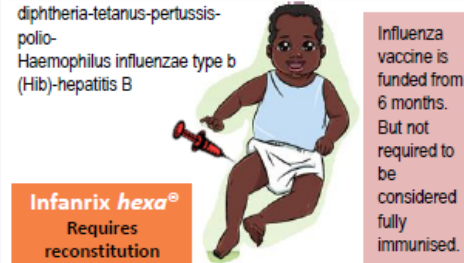
## 6 weeks & 4 months

diphtheria-tetanus-pertussis-polio-Haemophilus influenzae type b (Hib)-hepatitis B



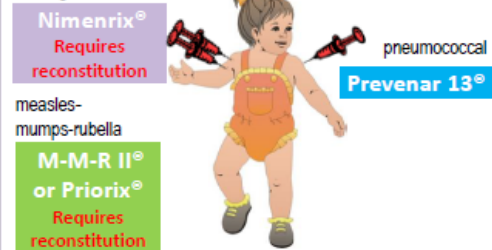
## 6 months

diphtheria-tetanus-pertussis-polio-Haemophilus influenzae type b (Hib)-hepatitis B



## 12 months

meningococcal ACWY



## 18 months

diphtheria-tetanus-pertussis

Infanrix® or TRIPACEL®

Haemophilus influenzae type b

Act-HIB® Requires reconstitution

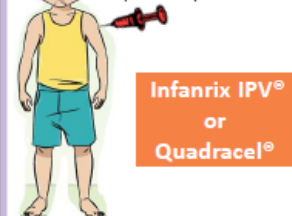
measles-mumps-rubella-varicella

Priorix-tetra® or ProQuad® Requires reconstitution

must NOT be administered as the first dose of MMR containing vaccine

## 4 years

diphtheria-tetanus-pertussis-polio



- Remember there must be 2.5 cm between injections in the same muscle.
- At 12 & 18 mth – if the deltoid muscle mass is small, give third injection into anterolateral thigh.

### ROUTE OF ADMINISTRATION

- Priorix, Priorix-tetra & influenza vaccine can be given either IM or SC
- M-M-R II & ProQuad are SC only

Intramuscular (IM) Anterolateral Thigh		IM Deltoid		Subcutaneous (SC)	
Angle of needle	Standard Needle	Angle of needle	Standard needle	Angle of needle	Standard needle
90° angle to the skin	23 G - 25 mm in length in most cases (16 mm needle in length, may be used for very small infants)	90° angle to the skin	23 G - 25 mm in length in most cases (16 mm needle in length may be used for very small infants)	45° angle to the skin	25 G or 26 G - 16mm in length

1 July 2018

Thank you to General Practice NSW and Albury Wodonga & Northern Territory Department of Health

Available through Coordinare in  
Update forum



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- [natasa.veselinovic@health.nsw.gov.au](mailto:natasa.veselinovic@health.nsw.gov.au) (from 14/1/2019)

*Thanks for Listening*

