

# The Australian Immunisation Handbook 9<sup>th</sup> Edition 2008

## What's New?

This slide set has been developed by the staff of the National Centre for Immunisation Research and Surveillance (NCIRS) for education and teaching purposes.

The information in this presentation was correct as at 28 February 2008

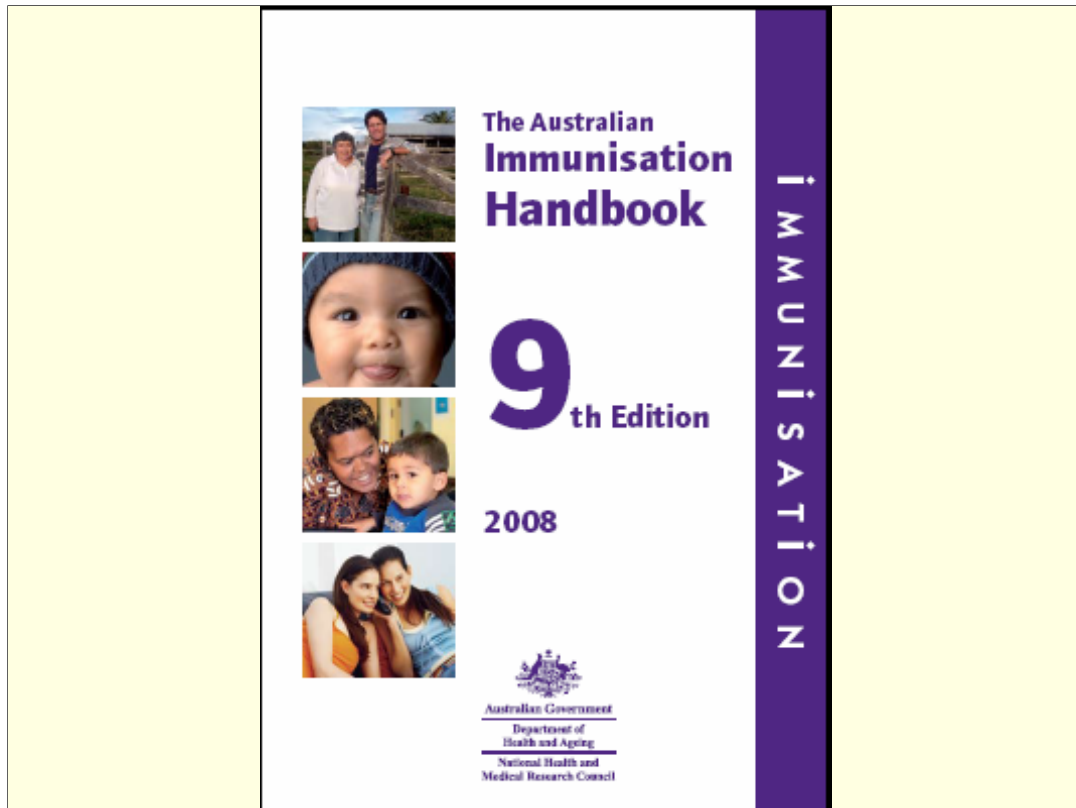


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### DISCUSSION POINTS

- This slide set discusses “What’s New” in the 9<sup>th</sup> edition of *The Australian Immunisation Handbook* that will be released in March 2008. It assumes that immunisation providers will be familiar with both the 8<sup>th</sup> edition of the *Handbook* (published in 2003) and electronic updates that were made to the 8<sup>th</sup> edition of the *Handbook* (from 2003 – April 2006).
- The 9<sup>th</sup> edition of *The Australian Immunisation Handbook* replaces both the 8<sup>th</sup> edition of the *Handbook* and its electronic updates (from 2003 – April 2006).
- This slide set is the copyright property of NCIRS.



## DISCUSSION POINTS

- This is the cover of the 9<sup>th</sup> edition.
- Providers should be aware that one of the chapters of the 9<sup>th</sup> edition, the Influenza chapter, was pre-released in August 2007 via the Immunise Australia website ([www.immunise.health.gov.au](http://www.immunise.health.gov.au)).

# Outline

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## DISCUSSION POINTS

- This talk is divided into the sections shown on this slide.
- Under each section the major changes in the 9<sup>th</sup> edition are highlighted. Immunisation providers should consult each section in detail for all changes to specific recommendations.
- The overall layout of the 9<sup>th</sup> edition is unchanged
  - Front and back cover information
  - Part 1
  - Part 2
  - Part 3
  - Appendices

## Introduction

- *The Australian Immunisation Handbook* is a clinical practice guideline for health professionals regarding the safe and effective use of vaccines in Australia.
  
- The 9<sup>th</sup> edition *Handbook* was
  - produced by ATAGI
  - endorsed by the NHMRC
  - prepared by NCIRS



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### DISCUSSION POINTS

- ATAGI is the Australian Technical Advisory Group on Immunisation
  
- NHMRC is the National Health and Medical Research Council
  
- NCIRS was commissioned by the Australian Government Department of Health and Ageing to assist ATAGI and liaise with the NHMRC in the preparation of the 9<sup>th</sup> edition of the *Handbook*.
  
- A detailed description of the methods used in development of the *Handbook* is available in Appendix 2.
  
- The *Handbook* development process included:
  - Literature searching around focused clinical questions
  - Critical analysis of available evidence
  - Writing by NCIRS technical writers and ATAGI members
  - Expert review of individual chapters and sections
  - Public consultation on the draft *Handbook* in 2007
  - Further revisions and consultation
  - NHMRC review (June – October 2007)

## Introduction

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- The 9<sup>th</sup> edition *Handbook* contains information on the use of all vaccines available in Australia, as at June 2007.
  
- This includes vaccines funded by
  - the National Immunisation Program (NIP)
  - the PBS
  - private purchase



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### DISCUSSION POINTS

- The schedule of vaccines funded under the NIP is available on an NIP schedule card, dated 1 July 2007, and distributed with hardcopies of the 9<sup>th</sup> edition *Handbook*. Further information regarding the NIP Schedule (NIPS) can be obtained from <http://www.immunise.health.gov.au>.
  
- Each State and Territory also produces a schedule which specifies the vaccines used in the NIP in their respective jurisdiction.
  
- In Australia, vaccines are funded through differing mechanisms, including under the NIP, the PBS (pharmaceutical benefits scheme), private purchase, employer funded etc.

# Introduction

## ■ Australian Vaccine Policy Advisory Structures

- ATAGI
  - Provides advice on the best clinical use of vaccines in Australia
- NHMRC
  - Endorses the *Handbook* as a clinical guideline
- PBAC (Pharmaceutical Benefits Advisory Committee)
  - Advises Government on the cost-effectiveness of vaccines
- Commonwealth Government
  - Considers advice from ATAGI
  - Makes decisions on vaccine funding under NIP and PBS
  - Implements programs at the national level
- State and Territory Governments
  - Implements programs at the jurisdictional level



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## DISCUSSION POINTS

•This slide provides an overview of the Vaccine Policy Advisory Structures in Australia which have been in place since 2005. More information can be found at <http://www.immunise.health.gov.au> under the ATAGI homepage.

•Decisions on changes to vaccines funded through the National Immunisation Program (NIP) are made by the Commonwealth Government following receipt of advice from both the PBAC and ATAGI. A Government decision to fund vaccines under the NIP or PBS can only be made if PBAC makes a recommendation for funding.

•If a change to the NIP occurs, a new NIP schedule card is issued and providers are notified of the date and process for implementation of the change by their State or Territory Immunisation Coordinator.

•New recommendations in the 9<sup>th</sup> edition of the *Handbook* may or may not result in a change to the NIP schedule.

# What's new in the Front and Back Covers?



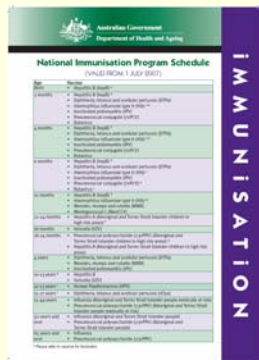
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## Front and Back Covers

- National Immunisation Program (NIP) schedule card
  - supplied with *Handbook*
  - can be inserted into front cover flap
  - last updated 1 July 2007



The front cover of the National Immunisation Program Schedule card features the Australian Government Department of Health and Ageing logo at the top. The title 'National Immunisation Program Schedule' is prominently displayed, with 'VALID FROM 1 JULY 2007' underneath. A vertical purple bar on the right side contains the word 'IMMUNISATION' in white capital letters. The main content area is a table with columns for 'Age Group', 'Vaccine', and 'Schedule'. The table lists various vaccines such as DTPa, Hib, Polio, and Hepatitis B, along with their respective recommended ages and frequencies.



The back cover of the National Immunisation Program Schedule card contains detailed information. It starts with the title 'Australian Government Department of Health and Ageing' and 'National Immunisation Program Schedule'. Below this, there is a section titled 'Read this information carefully' which provides instructions on how to use the schedule card. This is followed by a table of vaccine providers, including details such as 'Vaccine Provider', 'Address', 'Phone', and 'Fax'. The table lists various providers across different states and territories. At the bottom, there is a logo for 'IMMUNISE' and the text 'A good foundation. Help your future generations thrive.'.



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## DISCUSSION POINTS

- The current NIP schedule (NIPS) card, dated 1 July 2007, is being distributed with the 9<sup>th</sup> edition *Handbook*. A new schedule card will be issued if changes are made to the NIPS.
- Both sides of the NIPS card are shown on this slide.
- The 8<sup>th</sup> edition of the *Handbook* contained a vaccine schedule called the Australian Standard Vaccination Schedule (ASVS). This schedule included vaccines recommended in the *Handbook*, whether funded through NIP or not. There is no longer an ASVS.
- The *Handbook* does not contain a vaccine schedule that includes vaccines not funded on the NIP.

## Front and Back Covers

- Tables relocated
  - Recognition and Treatment of Anaphylaxis
    - on back cover
  - Adverse Events Following Immunisation
    - replaces the “Parent Advice Sheet”
    - now on the back cover inside flap
  - Comparison of the Effects of Diseases and the Side Effects of Vaccines
    - now on the front cover inside flap



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### DISCUSSION POINTS

- The Table “Comparison of the Effects of Diseases and the Side Effects of Vaccines” contains updated information, and includes vaccines recently added to the NIP.
- Providers should refer to the individual vaccine chapters for more specific explanation of the rates quoted for diseases and vaccine side effects.
- An example of one change under “vaccine side effects” is that up to half of 23vPPV vaccine recipients will experience some soreness after the first dose; however, pain or swelling severe enough to limit arm movement occurs in less than 5% of recipients.

# What's new in Part 1?



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## DISCUSSION POINTS

- Part 1 is called “Vaccination Procedures”.
- It has had a major re-design, particularly in layout.
- The preliminary sections contain an introduction and “What’s New”.

# Part 1

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- 3 main chapters
  - 1.3 Pre-vaccination procedures
  - 1.4 Administration of vaccines
  - 1.5 Post-vaccination procedures



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## DISCUSSION POINTS

- The three main chapters in Part 1 follow chronologically from pre-vaccination, to the administration of vaccines, to post-vaccination procedures.

## Part 1

### 1.3 Pre-vaccination procedures

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- Preparing an anaphylaxis response kit
  - Use of 1:1000 adrenaline is recommended
  
- Consent
  - Discussed in more detail



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#### DISCUSSION POINTS

- The use of 1:10,000 adrenaline is no longer recommended.

# Part 1

## 1.3 Pre-vaccination procedures

- Vaccine storage
  - Cold chain guidelines updated
  - Refer to
    - National Vaccine Storage Guidelines: Strive for 5*
  - Table removed
    - “Information on vaccines exposed to different temperatures”
  - Contact State and Territory authorities if a cold chain breach occurs



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### DISCUSSION POINTS

- All immunisation providers should be familiar with the *National Vaccine Storage Guidelines: Strive for 5*. The website for the guidelines is provided at the end of this presentation.
- The key features of these guidelines are discussed in Chapter 1.3. There is a checklist summarising the ongoing activities required by immunisation service providers to ensure optimal storage of vaccines (in Section 1.3.2).
- The table “Information on vaccines exposed to different temperatures” has been removed from the 9<sup>th</sup> edition *Handbook* because much of the information contained within the table could not be substantiated.
- Providers should follow the *National Vaccine Storage Guidelines: Strive for 5*, and have in place procedures in accord with relevant State and Territory guidelines for handling a cold chain breach.

## Part 1

### 1.3 Pre-vaccination procedures

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- New pre-vaccination screening checklist added
- Tables added
  - Minimum age for the first dose of vaccine in exceptional circumstances
  - Live attenuated parenteral and oral vaccines
- Catch-up
  - Worksheet for children <8 years of age added
  - Tables for children <8 years of age expanded
  - Table for older children and adults added
  - Link to online “Catch-up Calculator” added



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#### DISCUSSION POINTS

- Most of the catch-up tables refer to vaccines used on the NIP.
- A link to the online “Catch-up Calculator” (from the South Australian Department of Health) is also provided in the *Handbook*.
- The text of the catch-up section of the *Handbook* and local State and Territory guidelines should also be consulted.

## Part 1

### 1.4 Administration of vaccines

#### ■ Injection equipment and technique

##### ■ IM injections

- Needle gauge – 23 or 25 gauge (new)
- Needle length – 25 mm (unchanged)
- Needle angle (new)
  - pierce the skin at an angle of 90°
  - previously an angle of 60°

##### ■ More photos and diagrams



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#### DISCUSSION POINTS

•The recommendations for the equipment and techniques for intramuscular (IM) injections are changed. A needle gauge of either 23 or 25 gauge is recommended.

•The needle should be aimed at an angle of 90° to the skin plane for insertion. Provided an injection angle of >70° is achieved, the needle should reach the muscle layer. The evidence suggests that this is associated with significantly fewer local adverse events while achieving comparable immunogenicity.

•Immunisation guidelines from the USA, Canada, the UK and the WHO recommend the use of a 90° angle for IM injections.

## Part 1

### 1.4 Administration of vaccines

- Recommended injection sites unchanged
  - <12 months of age → anterolateral thigh
  - ≥12 months of age → deltoid
  
- Alternative injection site
  - ventrogluteal area
  - alternative site for vaccines at any age
  - caution
    - only use if familiar with landmarks
    - do not give vaccines in the dorsogluteal site or upper outer quadrant of the buttock



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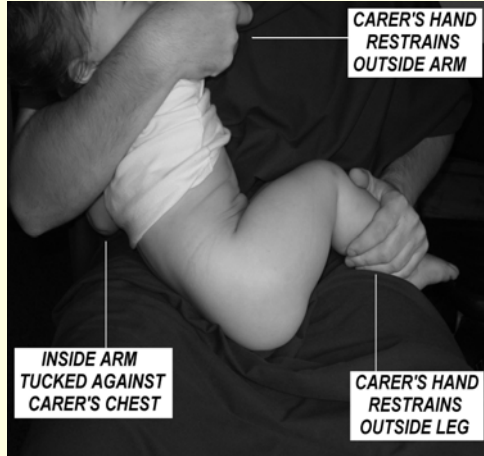
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#### DISCUSSION POINTS

- Photographs of the anterolateral thigh and the deltoid areas are included in the next two slides.
  
- The ventrogluteal area should not be confused with the dorsogluteal area.
  
- Photographs of the ventrogluteal site and a diagram of its landmarks are included in the 9<sup>th</sup> edition.

## Anterolateral thigh

Preferred injection site for IM vaccine administration under 12 months of age



Photos courtesy of *The Australian Immunisation Handbook*, 9<sup>th</sup> edition



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### DISCUSSION POINTS

- Refer to the text and additional diagrams in the *Handbook* for more detail regarding injection sites and techniques.

## Deltoid

Preferred injection site for IM vaccine administration from 12 months of age

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Photo courtesy of *The Australian Immunisation Handbook*, 9<sup>th</sup> edition



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### DISCUSSION POINTS

- Refer to the text and additional diagrams in the *Handbook* for more detail regarding injection sites and techniques.

## Part 1

### 1.5 Post-vaccination

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- Adverse events following immunisation (AEFI)
  - Management of anaphylaxis
    - Use of 1:1000 adrenaline is recommended
    - 1:10,000 adrenaline no longer recommended
  - Reporting AEFI
    - Appendix 6 “Definitions of adverse events following immunisation” updated



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#### DISCUSSION POINTS

None

## Part 1

### Tools to photocopy

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- Pre-vaccination screening checklist (Table 1.3.1)
- Catch-up worksheet (Figure 1.3.1)
- Appendix 10
  - Summary table – procedures for a vaccination encounter
  - Can be used as an audit tool



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#### DISCUSSION POINTS

- These tables and figures are handy guides that can be photocopied and used in a provider's practice if desired.

Table 1.3.1: Pre-vaccination screening checklist	
<b>Pre-vaccination screening checklist</b>	
This checklist helps your doctor/nurse decide about vaccinating you or your child. Please tell your doctor/nurse if the person about to be vaccinated:	
<input type="checkbox"/> is unwell today <input type="checkbox"/> has a disease which lowers immunity (eg. leukaemia, cancer, HIV/AIDS) or is having treatment which lowers immunity (eg. oral steroid medicines such as cortisone and prednisone, radiotherapy, chemotherapy) <input type="checkbox"/> has had a severe reaction following any vaccine <input type="checkbox"/> has any severe allergies (to anything) <input type="checkbox"/> has had any vaccine in the past month <input type="checkbox"/> has had an injection of immunoglobulin, or received any blood products or a whole blood transfusion within the past year <input type="checkbox"/> is pregnant <input type="checkbox"/> has a past history of Guillain-Barré syndrome <input type="checkbox"/> was a preterm infant <input type="checkbox"/> has a chronic illness <input type="checkbox"/> has a bleeding disorder	
A different vaccine schedule may be recommended if the person to be vaccinated:	
<input type="checkbox"/> identifies as an Aboriginal or Torres Strait Islander <input type="checkbox"/> does not have a functioning spleen <input type="checkbox"/> is planning a pregnancy or anticipating parenthood <input type="checkbox"/> is a parent, grandparent or carer of a newborn <input type="checkbox"/> lives with someone who has a disease which lowers immunity (eg. leukaemia, cancer, HIV/AIDS), or lives with someone who is having treatment which lowers immunity (eg. oral steroid medicines such as cortisone and prednisone, radiotherapy, chemotherapy)	
<p>Note: Please ask your doctor/nurse questions about this information or any other matter relating to vaccination before the vaccines are given.</p> <p>Before any vaccination takes place, the immunisation service provider will ask you:</p> <input type="checkbox"/> Did you understand the information provided to you about immunisation? <input type="checkbox"/> Do you need more information to decide whether to proceed? <input type="checkbox"/> Did you bring your/your child's vaccination record card with you? It is important for you to receive a personal record of your or your child's injections. If you do not have a record, ask your immunisation service provider to give you one. Bring this record with you every time you or your child visit for vaccination. Make sure your doctor/nurse records all vaccinations on it. Your child may need this record to enter childcare, preschool or school.	

## DISCUSSION POINTS

- This is the “Pre-vaccination screening checklist” (Table 1.3.1), which is one of the tools provided to photocopy.

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# What's new in Part 2?



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## Part 2

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- Vaccines for special risk groups
  
- 3 chapters
  - 2.1 Vaccination for Aboriginal and Torres Strait Islander people
  
  - 2.2 Vaccination for international travel
  
  - 2.3 Groups with special vaccination requirements



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### DISCUSSION POINTS

- The overall layout of Part 2 is unchanged.
  
- The chapter on vaccination of Aboriginal and Torres Strait Islander people has been updated in line with other sections in the *Handbook*.
  
- The chapter on vaccination for international travel has also been updated.
  
- The chapter on groups with special vaccination requirements has been substantially expanded (and is discussed in the following slides).

## Part 2

### 2.3 Groups with special vaccination requirements

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#### ■ Categories

- Children who had previous serious AEFI
- Women planning pregnancy, pregnant or breastfeeding
- Preterm infants
- Impaired immunity
- Recent recipients of
  - normal human immunoglobulin
  - other blood products including blood transfusions
- Bleeding disorders
- Vaccination before or after anaesthesia/surgery
- Occupational risk



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#### DISCUSSION POINTS

- Chapter 2.3 “Groups with special vaccination requirements” has undergone much revision.
- Recommendations are provided for persons in these categories.

## Part 2

### 2.3 Groups with special vaccination requirements

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- New tables
  - Vaccinations in pregnancy (Table 2.3.1)
  - Recommendations for solid organ transplant recipients (Table 2.3.2)
  - Post-transplantation vaccination schedules for haematopoietic stem cell transplant recipients (Table 2.3.3)
  - Recommended intervals between either immunoglobulins or blood products and MMR, MMRV or varicella vaccination (Table 2.3.5)



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#### DISCUSSION POINTS

None

Table 2.3.5: Recommended intervals between either immunoglobulins or blood products and MMR, MMRV or varicella vaccination<sup>45</sup>

	Route	Dose		
		IU or mL	Estimated mg IgG/kg	Interval (months)
Blood transfusion:				
Washed RBCs	IV	10 mL/kg	Negligible	0
RBCs, adenine-saline added	IV	10 mL/kg	10	3
Packed RBCs	IV	10 mL/kg	20-60	5
Whole Blood	IV	10 mL/kg	80-100	6
Cytomegalovirus immunoglobulin	IV	3 mL/kg	150	6
Hepatitis A prophylaxis (as NHIG)	IM	0.5 mL (<25 kg) 1.0 mL (25-50 kg) 2.0 mL (>50 kg)		3
Hepatitis B prophylaxis (as HBIG)	IM	100 IU 400 IU	10	3
ITP (as NHIG [Intravenous])	IV		400	8
ITP (as NHIG [Intravenous])	IV		1000	10
ITP of Kawasaki disease (as NHIG [Intravenous])	IV		1600-2000	11
Measles prophylaxis (as NHIG):		(max. dose 15 mL)		
Standard	IM	0.2 mL/kg		5
Immunocompromised	IM	0.5 mL/kg		6
Plasma of platelet products	IV	10 mL/kg	160	7
Rabies prophylaxis (as RIG)	IM	20 IU/kg	22	4
Replacement (or therapy) of immune deficiencies (as NHIG [Intravenous], various doses)	IV		300-400	9
Rh (D) IG (anti-D)	IM			0
Tetanus (as TTG for IM use)	IM	250 IU (given within 24 hrs of injury) 500 IU (>24 hrs after injury)	10 20	3
Varicella prophylaxis (as ZIG)	IM	200 IU (0-10 kg) 400 IU (11-30 kg) 600 IU (>30 kg)		5

## DISCUSSION POINTS

- This is one of the new tables in Chapter 2.3: “Recommended intervals between either immunoglobulins or blood products and MMR, MMRV or varicella vaccination” (Table 2.3.5).

- Previously, the *Handbook* recommended a standard 3 month interval between receipt of immunoglobulin and the administration of a live viral vaccine. In the 9<sup>th</sup> edition, the recommended intervals between receipt of an immunoglobulin or blood product, and the administration of MMR, varicella, or MMRV vary, depending on the amount of immunoglobulin in the product. For example, vaccines should be delayed for 11 months following administration of 2000 mg/kg of IV NHIG for treatment of Kawasaki disease.

## Part 2

### 2.3 Groups with special vaccination requirements

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- Occupational groups
  - Recommended vaccines now presented by occupational category in Table 2.3.6
  - Includes
    - healthcare workers
    - those who work with children
    - carers
    - emergency and essential service workers
    - laboratory personnel
    - those working in specific community settings
    - those working with animals
    - those exposed to human tissue, blood, body fluids or sewage



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#### DISCUSSION POINTS

None

# What's new in Part 3?



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## Part 3 Overview

- 26 chapters now
  - each on a separate disease
  - 1 chapter on use of immunoglobulins
- 2 chapters removed
  - Anthrax and Plague
- 3 chapters incorporated into Immunoglobulin Preparations chapter (3.8)
  - botulism
  - cytomegalovirus
  - respiratory syncytial virus



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### DISCUSSION POINTS

•The Anthrax and Plague chapters were removed because there are no vaccines currently publicly available for the prevention of these diseases.

•For information about anthrax, please go to the Commonwealth Government website [www.health.gov.au](http://www.health.gov.au) and use the index option to select the anthrax fact sheet.

•The botulism, cytomegalovirus and respiratory syncytial virus chapters contained in the 8<sup>th</sup> edition of the *Handbook* discussed the use of immunoglobulin-containing preparations in the management of these diseases. They are now incorporated into the Immunoglobulin Preparations chapter. There are no vaccines available in Australia for active immunisation against these diseases.

## Part 3 Overview

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- 3 new chapters
- Newly vaccine preventable diseases
  - Chapter 3.7 Human papillomavirus
  - Chapter 3.18 Rotavirus
  - Chapter 3.26 Zoster (Herpes zoster)
- New standard format to make it easier to find information



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### DISCUSSION POINTS

- New standard format

- Virology/Bacteriology
- Clinical Features
- Epidemiology
- Vaccines
- Transport, Storage and Handling
- Dosage and Administration
- Recommendations
- Contraindications
- Precautions
- Adverse Events
- Variations from Product Information

- Some chapters contain additional sections, such as on the public health management of disease.

- The chapter references are not printed in the hardcopy edition of the 9<sup>th</sup> *Handbook*. This is because of space limitations.

- The references to all chapters in the *Handbook* are available in the electronic *Handbook* version found online at <http://www.immunise.health.gov.au>.

## Part 3

### Major changes by chapter

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- **Diphtheria, Tetanus and Pertussis**
  - 3 separate chapters as in previous edition
  - Recommendations are cross-referenced
  - New for adults requiring a primary course of dT
    - dTpa is recommended for the first dose
    - follow by two doses of dT
    - use dTpa for subsequent doses *only* if dT is unavailable
  - **New table**
    - Recommended antimicrobial therapy and chemoprophylaxis regimens for pertussis in infants, children and adults (Table 3.14.1)



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#### DISCUSSION POINTS

•A new table provides recommendations on the use of antibiotics for the management of pertussis. The public health management of pertussis is discussed. All cases, both suspected and confirmed, should be notified to the State or Territory public health authorities.

## Part 3

# Major changes by chapter

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### ■ Hepatitis B

- New recommendations for preterm babies
- Babies born at <32 weeks' gestation or <2000 g birth weight
  - give vaccine at 0, 2, 4 and 6 months of age and either
    - measure anti-HBs at 7 months of age and give a booster at 12 months of age if antibody titre is <10 mIU/mL or
    - give a booster at 12 months of age without measuring the antibody titre



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## DISCUSSION POINTS

- The recommendations for the use of Hepatitis B vaccines have changed and include consideration of birth weight.
- In States and Territories where a dose of Hepatitis B vaccine is already provided under the Immunisation Schedule at 12 months of age, an additional dose of Hepatitis B vaccine would need to be given at 6 months of age.

## Part 3

### Major changes by chapter

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- **Hib (*Haemophilus influenzae* type b)**
  - Recommendations unchanged
  - Please note current shortage of Hib vaccines containing PRP-OMP (COMVAX, PedvaxHIB)
    - State and Territory Health departments have advised the course of action for those jurisdictions which use or have used these vaccines



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#### DISCUSSION POINTS

None

## Part 3

### Major changes by chapter

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#### ■ Human papillomavirus (HPV)

- New chapter
- Recommendations for two HPV vaccines
  - 4-valent (Gardasil)
  - 2-valent (Cervarix)
- Both vaccines protect against oncogenic HPV type 16 and/or type 18 cervical disease
- Recommendations cover
  - females
  - males
  - different age groups



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#### DISCUSSION POINTS

•If protection against genital warts is desired, the 4vHPV vaccine provides protection against HPV types 6 and 11, which are associated with more than 90% of these lesions.

## Part 3

### Major changes by chapter

#### ■ Influenza

- Children aged 6 months to <3 years
  - new dose – 0.25 mL
- Children aged 3 to 9 years
  - new dose – 0.5 mL
- Aboriginal and Torres Strait Islander people aged ≥15 years
  - annual influenza vaccination recommended
- High risk groups
  - chronic neurological conditions added

The influenza chapter was pre-released in August 2007



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#### DISCUSSION POINTS

•The Influenza chapter of the 9<sup>th</sup> edition of the Australian Immunisation *Handbook* was pre-released in August 2007 via the Immunise Australia website ([www.immunise.health.gov.au](http://www.immunise.health.gov.au)).

•The previous dose of influenza vaccine in children aged 6 months to <2 years was 0.125 mL, and for 2 to 6-year-olds the dose was 0.25 mL. The new dose is 0.25 mL for children aged 6 months to <3 years, and 0.5 mL for children aged 3 to 9 years.

•In the 8<sup>th</sup> edition of the *Handbook*, annual influenza vaccination was recommended for all Aboriginal and Torres Strait Islander people aged ≥50 years and for those aged ≥15 years with risk factors. The NIP currently provides vaccine for all Indigenous people in these categories. If the NIP changes to include influenza vaccine for all Indigenous people aged ≥15 years, providers will be advised of the date and process for implementation of the change by their State or Territory Immunisation Coordinator.

•Adults and children (>6 months of age) with chronic neurological conditions are at risk of severe consequences from influenza and should be offered annual influenza vaccination.

## Part 3

### Major changes by chapter

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- **Japanese encephalitis (JE)**
  - Recommendations unchanged
  - There is currently a shortage of JE vaccine
  - Please refer to the Australian Government Department of Health and Ageing fact sheet:  
<http://www.health.gov.au/internet/immunise/publishing.nsf/Content/japanese-encephalitis>



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#### DISCUSSION POINTS

None

## Part 3

### Major changes by chapter

#### ■ Measles, Mumps and Rubella

##### ■ MMR vaccine

- Recommendation for 2<sup>nd</sup> dose MMR to be given at 18 months of age instead of 4 years of age
- Rationale for giving 2<sup>nd</sup> dose MMR at 18 months
  - provides earlier 2-dose protection
  - likely to increase vaccine coverage

##### ■ If using NIP-funded vaccine

- continue to give 2<sup>nd</sup> dose MMR at 4 years of age in accordance with the 1 July 2007 NIP schedule distributed with the 9<sup>th</sup> edition *Handbook*

##### ■ MMRV vaccines - see the next slide



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#### DISCUSSION POINTS

•The recommendation for a move of MMR vaccine from 4 years to 18 months of age is under consideration through the Australian Vaccine Advisory process (discussed in earlier slides).

•If using NIP-funded MMR vaccine, providers should continue to give the 2<sup>nd</sup> dose at age 4 years, unless or until advised to change by their State or Territory Immunisation Coordinator.

•The ACIR (Australian Childhood Immunisation Register) accepts vaccination with MMR as valid if the second dose is given any time >27 days after a first valid dose.

## Part 3

### Major changes by chapter

#### ■ Varicella

- Recent evidence indicates
  - that varicella vaccine from 12 months of age is effective and provides earlier protection against chickenpox
- MMRV
  - New combination measles, mumps, rubella and varicella vaccine
  - When MMRV is available
    - give MMRV at 12 months of age to replace MMR
    - this moves varicella dose to 12 months of age
  - If using the NIP-funded MMR and varicella vaccines
    - continue to give doses as scheduled on the 1 July 2007 NIPS
    - change when advised by your State or Territory
- Administration of a second dose of varicella-containing vaccine to children aged <14 years is discussed as an option



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#### DISCUSSION POINTS

•Recommendations for the use of MMRV vaccine and the move of the varicella dose to 12 months of age are under consideration through the Australian Vaccine Advisory process.

•Two combination MMRV vaccines are registered for use in Australia, but not yet available (as at 28 February 2008).

•If using the NIP-funded MMR and varicella vaccines, providers should continue to give doses as scheduled on the 1 July 2007 NIPS, unless advised to change by their State or Territory Immunisation Coordinator.

•Providers need to be aware of the timing of delivery of MMR and varicella vaccines. If varicella vaccine is not given simultaneously with MMR (ie. on the same day, using separate syringes and at separate sites), then the 2 vaccines should be given at least 4 weeks apart.

•Providers also need to consider that, while providing varicella vaccine at 12 months of age will provide earlier protection against chickenpox, the 12 month schedule point already requires the administration of three vaccines (MenCCV, Hib and MMR). Pending the decision on whether MMRV will be included in the NIP, providers can continue to use NIP-funded MMR and varicella vaccines as currently scheduled on the NIPS.

## Part 3

### Major changes by chapter

#### ■ Meningococcal Disease

- Men C conjugate vaccine (MenCCV)
  - Give a single dose at 12 months of age
  - Infants given dose(s) at <12 months need another dose at 12 months (spaced at least 4 weeks after the previous dose)
- Public health management
  - Non-vaccinated close contacts of meningococcal case
    - Vaccinate in addition to providing antibiotic prophylaxis
  - Seek information from
    - “*Guidelines for the early clinical and public health management of meningococcal disease in Australia*”
    - Online at <http://www.health.gov.au/>



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#### DISCUSSION POINTS

- The recommendations for routine use of Meningococcal C conjugate vaccine (MenCCV) have changed.
- A single dose is given to all children at 12 months of age.
- Vaccination before 12 months of age is not recommended, except in infants with specified immune deficits, for whom a vaccine schedule is specified.
- Young children who have been given vaccine dose(s) at <12 months of age should receive a booster dose at 12 months of age; however, it is not necessary to recall older children who received a 3-dose schedule at <12 months some years ago.
- The public health management of meningococcal disease has been updated and includes provision of information, clearance antibiotics (antibiotic prophylaxis) and vaccination. Non-vaccinated close contacts of a proven vaccine-preventable strain of invasive meningococcal disease should visit their usual healthcare provider at the next available opportunity to receive the appropriate vaccine.

## Part 3

### Major changes by chapter

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#### ■ Pneumococcal Disease

- Children  $\leq 9$  years of age with specified underlying medical conditions and no history of previous pneumococcal vaccination
  - 2 doses of 7-valent pneumococcal conjugate vaccine
  - followed by 1 dose of 23-valent pneumococcal polysaccharide vaccine
- Adult vaccination
  - 23-valent pneumococcal polysaccharide vaccine recommendations revised
  - New table: Revaccination with 23vPPV for people  $\geq 10$  years of age (Table 3.15.3)



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#### DISCUSSION POINTS

•Table 3.15.3 details the recommended revaccination schedule for people  $\geq 10$  years of age. The time interval between the initial dose of 23vPPV and the first revaccination remains at 5 years. However, the table should be consulted for recommendations relating to further revaccination.

## Part 3

### Major changes by chapter

#### ■ Rotavirus

- New chapter
- 2 oral rotavirus vaccines
  - human monovalent rotavirus vaccine (Rotarix)
  - pentavalent human-bovine reassortant rotavirus vaccine (RotaTeq)
- Upper age limits for dosing
  - first dose and final doses

Table 3.18.1: Age limits for dosing of oral rotavirus vaccines

	Doses	Age of routine oral administration	Age limits for dosing			Minimum interval between doses
			1st dose	2nd dose	3rd dose	
Rotarix (GlaxoSmithKline)	2 oral doses (1 mL/dose)	2 and 4 months	6–14* weeks	10–24* weeks	None	4 weeks
RotaTeq (CSL Biotherapies/ Merck & Co Inc)	3 oral doses (2 mL/dose)	2, 4 and 6 months	6–12* weeks	10–32* weeks	14–32* weeks	4 weeks



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#### DISCUSSION POINTS

• Rotavirus vaccine is recommended for infants only. The first and final doses of each rotavirus vaccine course are recommended to be given by an upper age limit, as described in Table 3.18.1. It is important to adhere to these age limits to be able to complete the vaccine course.

## Part 3

### Major changes by chapter

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#### ■ Yellow Fever

- Travellers to urban and/or rural areas of endemic countries
  - vaccinate if no contraindications exist



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#### DISCUSSION POINTS

None

## Part 3

### Major changes by chapter

- **Zoster (Herpes zoster)**
  - New chapter
    - background information only
      - disease
      - epidemiology
  - A zoster vaccine will be available in Australia soon
  - A full *Handbook* chapter is being developed
    - development process includes
      - public consultation
      - NHMRC endorsement
    - full chapter will be published electronically
      - Immunise Australia website
    - expected availability – late 2008
    - NCIRS fact sheet coming soon



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#### DISCUSSION POINTS

- A live attenuated high dose Zoster vaccine (varicella zoster virus vaccine) for the prevention of herpes zoster is now registered for use (in persons >50 years of age) for the prevention of herpes zoster and its complications (such as post-herpetic neuralgia).
- It is anticipated that the vaccine will be available in Australia in early 2008.
- The vaccine is not funded under the NIP as at March 2008.

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# What's new in the Appendices?



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# Appendices

- 4 new appendices
  - Appendix 2: *Handbook* development
  - Appendix 3: Vaccine products registered in Australia but not currently available
  - Appendix 4: Major components of vaccines in NIP schedule
  - Appendix 10: Vaccination encounter procedures



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## DISCUSSION POINTS

•Appendix 2 outlines the steps undertaken during the production of the 9<sup>th</sup> edition of *The Australian Immunisation Handbook*. Complete details of the systematic literature reviews for the new vaccine chapters in the *Handbook*, namely the Rotavirus and Human papillomavirus chapters, may be found on the Immunise Australia website [www.immunise.health.gov.au](http://www.immunise.health.gov.au).

•Appendix 3 lists vaccines which have recently ceased to be marketed in Australia, such as CDT, and vaccines which are registered for use but currently not available, for example ProQuad and Priorix-Tetra (MMRV vaccines).

•Appendix 4 provides a list of the major components found in vaccines used on the NIPS. This appendix should be used in conjunction with the product information of the individual vaccines.

•Appendix 10 is provided as a vaccination encounter procedures “ready reckoner” which may be photocopied and may be useful for practices preparing to be accredited.

# Appendices

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- Appendices removed
  - Standards for childhood vaccination
    - Now discussed in Part 1
  - Golden rules of immunisation and the cold chain
    - Now discussed in Part 1
  - NHMRC levels of evidence
    - Now discussed in Appendix 2

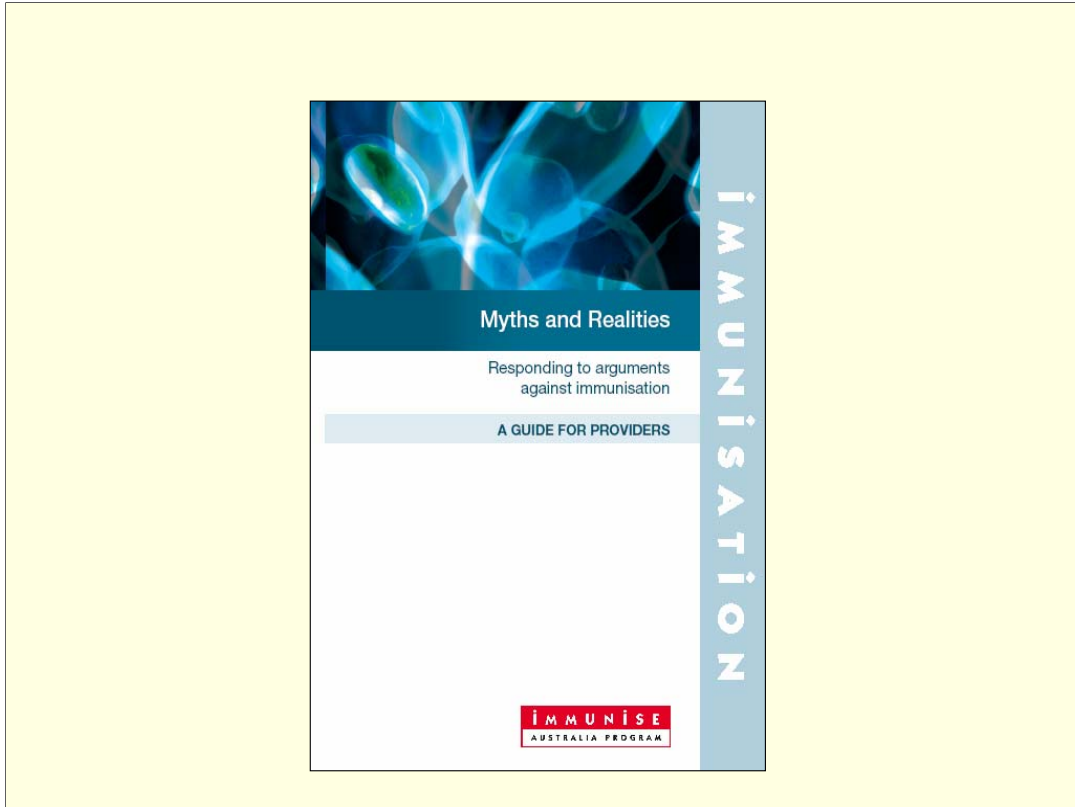


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## DISCUSSION POINTS

None



## DISCUSSION POINTS

- In addition, the booklet “*Myths and Realities, 4<sup>th</sup> Edition*” will be released with the 9<sup>th</sup> edition of *The Australian Immunisation Handbook*.
- This provides a useful additional tool for providers to discuss any concerns that patients or parents may have regarding immunisation.

## Further Information

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- Immunise Australia website  
[www.immunise.health.gov.au/](http://www.immunise.health.gov.au/)
- NCIRS website  
[www.ncirs.usyd.edu.au](http://www.ncirs.usyd.edu.au)
- NCIRS fact sheets available at  
[www.ncirs.usyd.edu.au/facts/f-fact\\_sheets.html](http://www.ncirs.usyd.edu.au/facts/f-fact_sheets.html)



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## Further Information

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- Immunisation calculator  
[www.health.sa.gov.au/immunisationcalculator/](http://www.health.sa.gov.au/immunisationcalculator/)
- National Vaccine Storage Guidelines: Strive for 5  
<http://www.health.gov.au/internet/immunise/publishing.nsf/Content/provider-store>
- Please also refer to the relevant website of your State or Territory



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Thank you for your attention